The Kingdom of Denmark's First Biennial Transparency Report

under the Paris Agreement

– submitted to the United Nations Framework Convention on Climate Change

Danish Ministry of Climate, Energy and Utilities

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2024

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Contents

Introduction and overview

INTRODUCTION

This report is the Kingdom of Denmark's first Biennial Transparency Report (BTR1) under the Paris Agreement (PA)[1]. The Paris Agreement was adopted in 2015 by Parties under the United Nations Framwork Convention on Climate Change (UNFCCC). In 2018, Parties to the Paris Agreement decided that the first Biennial Transparency Report should be submitted by 31 December 2024.

The report has been prepared in accordance with the Modalities, Procedures and Guidelines (MPGs) adopted with Decicion 18/CMA.1[2] for the transparency framework for action and support referred to in Article 13 of the PA and in accordance with the Guidance (Outlines and Tables)) adopted with Decision 5/CMA.3[3] for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the PA.

The report provides information on progress made in the Kingdom of Denmark. The report includes information on Denmark's contribution to the joint progress made by EU Member States towards the joint European Union (EU) target for 2030 included in the EU's National Determined Contribution (NDC) of 16 October 2023 submitted under the Paris Agreement on 19 October 2023[4], including information on historic emissions, targets, progress with policies and measures and projected emissions. The report also includes information on Denmark's provision of financial, technological and capacity-building support to Parties not included in Annex I to the Convention. Non-mandatory information related to climate change impacts and adaptation under Article 7 of the Paris Agreement has also been included.

Inventory information in relation to Greenland and the Faroe Islands is included in this report as all parts of the realm are covered by the Kingdom of Denmark's approval of the Paris Agreement[5]. However, as the Faroe Islands and Greenland are not members of the EU and therefore not included in the geografical scope of the EU NDC, the commitments of Denmark as a member of the EU do no apply to the Faroe Islands and Greenland.

The national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases comprises the national inventory document (NID) and the annual greenhouse gas inventory information 1990-2022 in the Common Reporting Tables (CRT).

In accordance with Decision 5/CMA.3, the National Inventory Document (NID) is reported separately as a stand-alone report following the outline contained in Annex V of Decision 5/CMA.3.

As the NID as well as the CRT for the electronic reporting of anthropogenic emissions by sources and removals by sinks of greenhouse gases is reported separately, only summary inventory information is included in this report. Although the information in the NID and the CRT is reported separately, the information is still to be seen as part of the BTR reporting. This applies to all the information to be reported electronically in the Common Reporting Tables (CRT) for inventory data and the Common Tabular Format (CTF) for information on progress and support contained in Decision 5/CMA.3:

- Annex I of Decision 5/CMA.3: Common reporting tables (CRT) for the electronic reporting of the information in the national inventory reports of anthropogenic emissions by sources and removals by sinks of greenhouse gases;
- Annex II of Decision 5/CMA.3: Common tabular formats (CTF/Progress) for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement; and
- Annex III of Decision 5/CMA.3: Common tabular formats (CTF/Support) for the electronic reporting of the information on financial, technology development and transfer and capacity-building support provided and mobilized, ..., under Articles 9-11 of the Paris Agreement.

In addition to the efforts and progress described for the Kingdom of Denmark in this report, Denmark also contributes to the European Union's common efforts and progress under the Paris Agreement cf.

[1] The Paris Agreement: https://unfccc.int/documents/9097
[2] The MPGs: https://unfccc.int/documents/193408
[3] Outlines and tables: https://unfccc.int/documents/460951
[4] The NDC Registry: https://unfccc.int/NDCREG and https://unfccc.int/sites/default/files/NDC/2023-10/ES-2023-10-17%20EU%20submission%20NDC%20update.pdf
[5] https://treaties.un.org/doc/Publication/CN/2016/CN.819.2016-Eng.pdf and https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en#1

the the above mentioned NDC of the EU and its 27 Member States. The common efforts and progress in the EU have been – and will in the future be – transposed by implementation of common and coordinated policies and measures to reduce greenhouse gas emissions in the EU. Further information on the EU's climate policy etc. is available in the EU's First Biennial Transparency Report submitted under the Paris Agreement in November 2024[6].

The Danish Ministry of Climate, Energy and Utilities has been in charge of coordinating the work relating to The Kingdom of Denmark's First Biennial Transparency Report. Contributions have been made by the institutions mentioned in Box 0(1) either directly or through contributions to Denmark's updated National Energy and Climate Plan (NECP) submitted to the European Commission in June 2024. In general the editing ended in December 2024, but for most of the information on policies and measures in chapter 2.4 the editing ended in May 2024. However, updated information on the *Agreement on a Green Denmark* of 28 June 2024 and the political agreement of 18 November 2024 on its implementation (chapters 2.4.1.2 and 2.4.3.7.2.10) as well as updated information on the 5 December 2024 results of the 2024 tenders for off-shore wind (chapters 2.4.1.2 and 2.4.3.5.1.4) has been included.

Box 0(1) Institutions contributing to BRT1

Danish Ministry of Climate, Energy and Utilities and Danish Energy Agency and Danish Meteorological Institute thereunder;
Danish Ministry of Taxation;
Faroe Islands - contributions from and coordinated by the Environment Agency;
Greenland - contributions from and coordinated by the Ministry of Agriculture, Self-Sufficiency, Energy and Environment;
Ministry of Environment of Denmark and Environmental Protection Agency and Danish Nature Agency thereunder;
Ministry of Food, Agriculture and Fisheries and Danish AgriFish Agency thereunder
Ministry of Foreign Affairs;
Ministry of Industry, Business and Financial Affairs and the Danish Business Authority thereunder;
Ministry of Social Affairs, Housing, and Senior Citizens;
Ministry of Transport;
Aarhus University and DCE - Danish Centre for Environment and Energy thereunder.

OVERVIEW

In accordance with paragraph 2 of Decision 5/CMA.3, this report follows the Outline contained in the MPGs as applicable. As The Kingdom of Denmark is a developed country Party, the information to be reported by developing country Parties only are not included in this report. An overview of the elements from the Outline, included in this report as applicable, is contained in Table 0(1).

[6] https://unfccc.int/first-biennial-transparency-reports

Table 0(1) Overview

Chapter or Annex in the Outline *(italics are used for voluntary information)*	Issue	Included (applicable and included in this reporting) or NA (Not Applicable)	Where to find the information in the reporting
Overview	Introduction and overview	Included	Introduction and overview
Chapter I	National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases (paras. 17–58 of the MPGs). This reporting comprises the national inventory document (NID) and the greenhouse gas inventory in the Common Reporting Tables (CRT).	Included – as summary in this report and in full in the NID reported as a separate document with inventory data reported in the CRT.	Chapter 1 - and in the separate NID and the electronic CRT
Chapter II	Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement (paras. 59-103 of the MPGs)	Included	Chapter 2
Chapter II.A	National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	Included	Chapter 2.1
Chapter II.B	Description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	Included	Chapter 2.2 and Annex A
Chapter II.C	Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	Included	Chapter 2.3 and Annex A
Chapter II.D	Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	Included	Chapter 2.4 and Annex B
Chapter II.E	Summary of greenhouse gas emissions and removals (para. 91 of the MPGs)	Included	Chapter 2.5 and Annex C
Chapter II.F	Projections of greenhouse gas emissions and removals, as applicable (paras. 92–102 of the MPGs)	Included	Chapter 2.6 and Annex D
Chapter II.G	*Other information (para. 103 of the MPGs)*	*NA*	-
Chapter III	*Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement*	*Included*	*Chapter 3*
Chapter III.A	*National circumstances, institutional arrangements and legal frameworks (para. 106 of the MPGs)*	*Included*	*Chapter 3.1*
Chapter III.B	*Impacts, risks and vulnerabilities, as appropriate (para. 107 of the MPGs)*	*Included*	*Chapter 3.2*
Chapter III.C	*Adaptation priorities and barriers (para. 108 of the MPGs)*	*Included*	*Chapter 3.3*
Chapter III.D	*Adaptation strategies, policies, plans, goals and actions to integrate adaptation into national policies and strategies (para. 109 of the MPGs)*	*Included*	*Chapter 3.4*
Chapter III.E	*Progress on implementation of adaptation (paras. 110–111 of the MPGs)*	*Included*	*Chapter 3.5*
Chapter III.F	*Monitoring and evaluation of adaptation actions and processes (paras. 112–114 of the MPGs)*	*Included*	*Chapter 3.6*
Chapter III.G	*Information related to averting, minimizing and addressing loss and damage associated with climate change impacts (para. 115 of the MPGs)*	*Included*	*Chapter 3.7*
Chapter III.H	*Cooperation, good practices, experience and lessons learned (para. 116 of the MPGs)*	*Included*	*Chapter 3.8*
Chapter III.I	*Any other information related to climate change impacts and adaptation under Article 7 of the Paris Agreement (para. 117 of the MPGs)*	*NA*	*Chapter 3.9*
Chapter IV	Information on financial, technology development and transfer and capacity-building support provided and mobilized under Articles 9–11 of the Paris Agreement	Included	Chapter 4 and Annex E
Chapter IV.A	National circumstances and institutional arrangements (paras. 119–120 of the MPGs)	Included	Chapter 4.1
Chapter IV.B	Underlying assumptions, definitions and methodologies (paras. 121–122 of the MPGs)	Included	Chapter 4.2
Chapter IV.C	Information on financial support provided and mobilized under Article 9 of the Paris Agreement (paras. 123–125 of the MPGs)	Included	Chapter 4.3
Chapter IV.D	Information on support for technology development and transfer provided under Article 10 of the Paris Agreement (paras. 126–127 of the MPGs)	Included	Chapter 4.4
Chapter IV.E	Information on capacity-building support provided under Article 11 of the Paris Agreement (paras. 128–129 of the MPGs)	Included	Chapter 4.5

Chapter V	Information on financial, technology development and transfer and capacity-building support needed and received under Articles 9–11 of the Paris Agreement	NA	-
Chapter VI	Information to be reported when national communications and biennial transparency reports are submitted jointly every four years	NA (until BTR2/NC9)	-
Chapter VI.A	Vulnerability assessment, climate change impacts and adaptation measures	NA (until BTR2/NC9)	-
Chapter VI.B	Research and systematic observation	NA (until BTR2/NC9)	-
Chapter VI.C	Education, training and public awareness	NA (until BTR2/NC9)	-
Chapter VII	Information on flexibility	NA	-
Chapter VIII	Improvements in reporting over time	NA (until BTR2)	-
Chapter IX	Any other information the Party considers relevant to the achievement of the objective of the Paris Agreement, and suitable for inclusion in its biennial transparency report	Included	Chapter 5
Annex I	Relevant for developing country Parties only (REDD+). I.e.: Not Applicable (NA).	NA	-
Annex II, Inventory	Common reporting tables for the electronic reporting of the information in the national inventory reports of anthropogenic emissions by sources and removals by sinks of greenhouse gases	Included (in the electronic reporting)	The electronic CRT/inventory (summary in Chapter 2.5 and Annex C)
Annex III, Progress	Common tabular formats for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/progress (also included in Annex A)
Appendix Table 'Appendix'	Reporting format for the description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates	Included (in the electronic reporting)	The electronic CTF/progress
Annex IIIp, Table 1	Structured summary: Description of selected indicators	Included (in the electronic reporting)	The electronic CTF/progress
Annex IIIp, Table 2	Structured summary: Definitions needed to understand NDC	Included (in the electronic reporting)	The electronic CTF/progress
Annex IIIp, Table 3	Structured summary: Methodologies and accounting approaches – consistency with Article 4, paragraphs 13 and 14, of the Paris Agreement and with decision 4/CMA.1	Included (in the electronic reporting)	The electronic CTF/progress
Annex IIIp, Table 4	Structured summary: Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/progress
Annex IIIp, Table 5	Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/progress (also included in Annex B)
Annex IIIp, Table 6	Summary of greenhouse gas emissions and removals in accordance with the common reporting table 10 emission trends – summary	Included (in the electronic reporting)	The electronic CTF/progress (also included in Chapter 2.5 and Annex C)
Annex IIIp, Table 7	Information on projections of greenhouse gas emissions and removals under a 'with measures' scenario	Included (in the electronic reporting)	The electronic CTF/progress (also included in Annex D)
Annex IIIp, Table 8	*Information on projections of greenhouse gas emissions and removals under a 'with additional measures' scenario*	*NA*	-
Annex IIIp, Table 9	*Information on projections of greenhouse gas emissions and removals under a 'without measures' scenario*	*NA*	-
Annex IIIp, Table 10	Projections of key indicators	Included (in the electronic reporting)	The electronic CTF/progress (also included in Annex D)
Annex IIIp, Table 11	Key underlying assumptions and parameters used for projections	Included (in the electronic reporting)	The electronic CTF/progress (also included in Annex D)
Annex IIIp, Table 12	Information necessary to track progress on the implementation and achievement of the domestic policies and measures implemented to address the social and economic consequences of response measures	NA (neither adaptation actions nor economic diversification plans are included in the EU NDC)	-
Annex III, Support	Common tabular formats for the electronic reporting of the information on financial, technology development and transfer and capacity-building support provided and mobilized (p&m), as well as support needed and received (n&r), under Articles 9–11 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/support (overview tables are included in Annex E)

Annex IIIs(p&m), Table III.1(XX-3)	Information on financial support provided under Article 9 of the Paris Agreement in year 20XX-3: bilateral, regional and other channels	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.1(XX-2)	Information on financial support provided under Article 9 of the Paris Agreement in year 20XX-2: bilateral, regional and other channels	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.2(XX-3)	Information on financial support provided under Article 9 of the Paris Agreement in year 20XX-3: multilateral channels	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.2(XX-2)	Information on financial support provided under Article 9 of the Paris Agreement in year 20XX-2: multilateral channels	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.3(XX-3)	Information on financial support mobilized through public interventions under Article 9 of the Paris Agreement in 20XX-3	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.3(XX-2)	Information on financial support mobilized through public interventions under Article 9 of the Paris Agreement in 20XX-2	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.4	Information on support for technology development and transfer provided under Article 10 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(p&m), Table III.5	Information on capacity-building support provided under Article 11 of the Paris Agreement	Included (in the electronic reporting)	The electronic CTF/support
Annex IIIs(n&r), Table III.6	Information on financial support needed by developing country Parties under Article 9 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.7	Information on financial support received by developing country Parties under Article 9 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.8	Information on technology development and transfer support needed by developing country Parties under Article 10 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.9	Information on technology development and transfer support received by developing country Parties under Article 10 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.10	Information on capacity-building support needed by developing country Parties under Article 11 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.11	Information on capacity-building support received by developing country Parties under Article 11 of the Paris Agreement	NA	-
Annex IIIs(n&r), Table III.12	Information on support needed by developing country Parties for the implementation of Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building	NA	-
Annex IIIs(n&r), Table III.13	Information on support received by developing country Parties for the implementation of Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building	NA	-
Annex IV	Information in relation to the Party's participation in cooperative approaches, as applicable	NA (in relation to the achievement of the target in the EU NDC)	-

1 National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases

This reporting comprises the national inventory document (NID) and the greenhouse gas inventory in the Common Tabular Format (CTF).

In accordance with paragraph 12 of the Annex to Decision 18/CMA.1, Denmark has chosen to submit the National Inventory Report (NIR) as a stand-alone report. Therefore, only a brief summary of the information will be reported in the BTR with references made to the relevant part(s) of the National Inventory Document.

1.1 National circumstances and institutional arrangements

The Kingdom of Denmark comprises of three components: Denmark, Greenland and the Faroe Islands. At the moment of the first BTR, the NDC for Kingdom of Denmark only includes Denmark and therefore the information presented in this chapter is for Denmark.

Summary information on the greenhouse gas inventories for Greenland and the Faroe Islands is included in Chapter 5. Further information on the greenhouse gas inventories for Greenland and the Faroe Islands is included in Chapters 11 and 12 of the NID (Nielsen et al.,2024)[7]. The information contained in the chapters of the NID includes all the required information as per Decision 18/CMA.1.

1.2 National inventory arrangements

The Danish Centre for Environment and Energy (DCE) at Aarhus University[8] is responsible for producing the Danish greenhouse gas emission inventories and the annual reporting to the UNFCCC and the Paris Agreement. DCE is therefore the contact point for Denmark's national system for greenhouse gas inventories. Furthermore, DCE participates in work under the auspices of the UNFCCC, where guidelines for reporting are discussed and decided upon, and it participates in the working group 1 under the EU Climate Change Committee, where guidelines for reporting to the EU are discussed. The work on the annual inventories is carried out in cooperation with other Danish ministries, research institutes, organisations and private enterprises. The most important partners for this work are mentioned in Box 1(1). For more comprehensive information on the data collection, please see Nielsen et al. (2024) Chapter 1.3 and the individual sector chapters (Chapters 3 through 7).

[7] The full title: «Nielsen, O.-K., Plejdrup, M.S., Winther, M., Nielsen, M., Gyldenkærne, S., Mikkelsen, M.H., Albrektsen, R., Hjelgaard, K., Fauser, P., Bruun, H.G., Levin, L., Callisen, L.W., Andersen, T.A., Johannsen, V.K., Nord-Larsen, T., Vesterdal, L., Stupak, I., Scott-Bentsen, N., Rasmussen, E., Baunbæk, L., & Hansen, M.G. 2024. Denmark's National Inventory Document 2024. Emission Inventories 1990-2022 - Submitted under the United Nations Framework Convention on Climate Change and the Paris Agreement. Aarhus University, DCE – Danish Centre for Environment and Energy.»

[8] Danish Centre For Environment And Energy, Aarhus University. Frederiksborgvej 399, 4000 Roskilde Denmark. Contact: Ole-Kenneth Nielsen okn@envs.au.dk

Box 1(1) DCE's key partners in the work on the annual inventories

The Danish Energy Agency, the Danish Ministry of Climate, Energy and Utilities:
Annual energy statistics that are compatible with the format used for emission inventories, fuel consumption data for large incineration plants and plant data reported under the EU ETS.

The Danish Environmental Protection Agency, the Danish Ministry of Environment:
Database on waste volumes and emissions of fluorinated greenhouse gases (F-gases).

Statistics Denmark, the Danish Ministry of the Interior and housing:
Statistical yearbook, sales statistics for industry, and agricultural statistics.

Department of Animal Science, Aarhus University:
Data on use of fertiliser, fodder, and data on nitrogen emissions from livestock.

The Danish Road Directorate, the Danish Ministry of Transport:
Number of vehicles grouped by categories corresponding to the EU classifications, kilometres travelled and speeds in town and on main roads and motorways.

The National Centre for Forest, Landscape and Planning, Copenhagen University:
Background data for forests and emissions/ removals associated with forestry.

The Civil Aviation Administration, the Danish Ministry of Transport:
Aircraft data (aircraft types and flight routes) for all flight departures and arrivals at Danish airports.

DSB (Danish Railways), the Danish Ministry of Transport:
Fuel-related emission factors for diesel locomotives.

Danish enterprises:
Environmental accounts and other information.

1.3 Changes to the National inventory arrangements

As this is the first Biennial Transparency Report, there are no changes to report. However, comparing with the latest information reported in the Eighth National Communication, there is no substantial changes (e.g. changes to the names of ministries are not considered significant changes as they have no impact on the work).

1.4 Calculation methodologies

The Danish emission inventory is based on the 2006 IPCC guidelines for calculation of greenhouse gas emissions and the European CORINAIR (COoRdination of INformation on AIR emissions) program for calculation of national emissions. The methodologies are selected in accordance with the 2006 IPCC Guidelines. Activity data are mainly based on official statistics or plant-specific information. The emission factors are either plant-specific, country-specific, default factors from the IPCC guidelines or values from international scientific literature and are selected in accordance with the 2006 IPCC Guidelines. For more information on the methodologies and selection of emission factors and other calculation parameters, please refer to Chapter 1.4 and the individual sector chapters (Chapter 3-7) in Nielsen et al. (2024).

1.5 Identification of key categories

The choice of methodological tier for the individual categories depends, among other things, on the significance of the source. The categories that together accounted for 95 % of greenhouse gas emissions expressed in CO_2 equivalents in the base year and the most recent year are identified as Key Categories (KCs) for the level. The categories that together accounted for 95 % of the change in emission levels from the base year to the most recent year are defined as KCs for the trend. This approach corresponds to Approach 1 of the 2006 IPCC Guidelines. For more information on the identified KCs for the level and trend as well as the results of using approach 2 of the 2006 IPCC Guidelines, please refer to Chapter 1.5 and Annex 1 of Nielsen et al. (2024).

1.6 Recalculations

Every year recalculations are carried out to maintain time series consistency. The reason for the recalculations can be many, e.g. updated statistical data, improvements to methodologies, new methodologies, new sources, updated emission factors due to new knowledge/research and correction

of errors. In order to ensure consistent emission inventories, recalculations will be carried out for the whole time series, as applicable, following the guidance in the IPCC guidelines. For more information on the recalculations performed each year, please refer to Chapter 9 of the NID (Nielsen et al., 2024) as well as information in the sectoral chapters (Chapter 3-7).

1.7 Uncertainties

The uncertainty is estimated using Approach 1 of the 2006 IPCC Guidelines. For more information on the results of the uncertainty estimation, please refer to Chapter 1.7 of the NID (Nielsen et al., 2024) as well as information in the sectoral chapters (Chapter 3-7).

1.8 Quality assurance and quality control

As part of the national inventory arrangements, DCE has a manual to use in quality assurance and quality control of the emission inventories. The manual is in accordance with the 2006 IPCC Guidelines. The ISO 9000 standards are also being used as important input for the plan.

For a more detailed description of the QA/QC system, please refer to Chapter 1.6 of the NID (Nielsen et al., 2024) as well as information in the sectoral chapters (Chapter 3-7).

1.9 Processes for the official consideration and approval of the inventory

The complete emission inventories are compiled by DCE and sent for official approval along with the documentation report (NID). The emission inventory is finalised no later than March 15, so that the official approval is prior to the reporting deadlines under the UNFCCC.

2 Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement

The Kingdom of Denmark comprises Denmark, Greenland and the Faroe Islands. The UN Framework Convention on Climate Change as well as the Paris Agreement has been ratified on behalf of all three parts of the Realm. Therefore, this report includes information about Denmark, Greenland and the Faroe Islands. However, as Greenland and the Faroe Islands are not in the European Union and therefore not included in the geographical scope of the EU NDC under the Paris Agreement, and the EU NDC is therefore applicable to Denmark only, this chapter contains information necessary to track progress made in Denmark's contribution in the EU to implementing and achieving the EU NDC. Information on progress in Greenland and the Faroe Islands is contained in Chapter 5.

The references for the data in this chapter are:

Statistics Denmark: https://www.dst.dk

Danish Meteorological Institute (DMI): https://www.dmi.dk/

Danish Energy Agency (2023a): E2022 – Energy Statistics for (1980/1990-) 2022 published in December 2023 (https://ens.dk)

Nielsen et al., (2024a): Denmark's National Inventory Document (NID) 2024 - Emission Inventories 1990-2022 – Submitted under the United Nations Framework Convention on Climate Change and the Paris Agreement, Scientific Report from DCE – Danish Centre for Environment and Energy, No.(tbc), 2024, Aarhus University (https://dce2.au.dk/pub/SR (tbc).pdf)

2.1 National circumstances and institutional arrangements - relevant to progress made in implementing and achieving the EU NDC under Article 4 of the Paris Agreement

2.1.1 Government structure

Denmark is a constitutional monarchy, and the power of the state is divided between the legislative branch, the executive branch, and the judicial branch. According to the Constitution of the Realm, legislative power lies with the Folketing, which consists of 179 members, two of whom are elected in the Faroe Islands and two in Greenland. The members are elected by the population for a period of normally four years. A new general election can mean that a member sits for less than this period.

The executive branch - the government - cannot have a majority of the Folketing against it, cf. the regulations in the Danish Constitution on votes of no confidence. Since 1953, Denmark has often had a minority government, i.e. a government supported by a minority of the members of the Folketing. In these situations the government will need to include a support party.

The number of ministers in the government varies. Since 1971 Denmark has had a Minister for the Environment and a Ministry of the Environment, which also had primary responsibility for Denmark's policy on climate change until 2007. In 2007 a Ministry of Climate and Energy (now: Ministry of Climate, Energy and Utilities) was established. The minister for Climate, Energy and Utilities has the primary responsibility for coordination and implementation of legislation, plans etc. relating to Denmark's climate policy and is representing Denmark in international negotiations on climate change issues.

For the last more than thirty years, other ministries have also worked with environmental and climate issues. In 1988 the government decided to follow up the UN report on sustainable development, the Brundtland report, in which one of the main messages was the necessity of integrating the environmental issue into the administration within sectors such as transport, agriculture, and energy.

For this reason, a number of sector ministries have drawn up action plans in which the environment is an integral element. Examples are sector plans for energy, transport, agriculture, and development assistance. In the climate area, an overall status report was presented in connection with the proposal for ratification of the Kyoto Protocol in April 2002. This status report was followed by a national Climate Strategy for Denmark for 2008-2012. In December 2008 Denmark and the other EU member states adopted the EU Climate and Energy Package. With this package Denmark's primary climate and energy objectives until 2020 was established in line with the second commitment period of the Kyoto Protocol. As a follow-up to the adoption of the Paris Agreement under the United Nations Framework Convention on Climate Change in 2015 and to the adoption of a joint EU NDC for 2021-2030 and the necessary legal framework for burden sharing and implementation in 2018, a new Danish Climate Act was adopted in June 2020. The Climate Act establishes new domestic climate targets for 2030 and 2050, schedules for annual greenhouse gas projections and annual assessments of progress, a new Climate Council to provide analysis and advices in their assesments of progress with policies and measures and schedules for assessing and – if necessary revising targets.
One of the main cornerstones of Danish democracy is autonomous local government. Specific environmental action takes place not only at national level but also at municipal level. The state sets the national rules and framework for environmental administration, while the municipalities, working within this framework, plan and decide initiatives that implement and support the national legislation. In 2007 the structure of the Danish public sector was reformed. With a view of merging smaller municipalities to have at least 20,000 (and preferably 30,000) citizens the number of Danish municipalities was reduced from 271 to 98. Along with the reform of the municipal structure, the Danish parliament reformed the regional structure in Denmark – closing down 14 counties and opening up five new regions. The reform led to several changes in the division of labour between the state, the (new) regions, and the municipalities.

The importance of local involvement is stressed in Agenda 21 - a global agenda for sustainable development in the 21st century, which was adopted at the Rio Conference in 1992. The government supports popular interest and participation in climate and environmental issues in different ways - including through implementation of the Pan-European Aarhus Convention and support for the local Agenda 21 work initiated by most of the Danish municipalities.

In the light of Denmark's role as host for the Fifteenth Conference of the Parties under the UNFCCC in December 2009, many additional initiatives to raise awareness and involve citizens, municipalities, the business community and other stakeholders have been taken – both at national and local level.

Several municipalities have committed themselves to local targets for reducing greenhouse gas emissions (the "Climate Municipality"-project 2007-2021: https://www.dn.dk/om-os/projekter-og-kampagner/klimakommuner/ and the follow-up "DK2020"-project: https://www.realdania.org/whatwedo/grants-and-projects/dk2020 established "to support municipalities in developing, upgrading or adjusting their existing work on climate action to global best practice, and in ultimately developing climate action plans in line with the 1.5 degree goal in the Paris Agreement, meaning that the climate action plans must show the way towards local climate neutrality in 2050 – or sooner").

2.1.2 Population profile

Today, Denmark has a population at around 5.9 mill. As can be seen from Table 2.1(1), population growth has been relatively small in the last 42 years.

Table 2.1(1) Population of Denmark
Source: Statistics Denmark.

	1980	1990	2000	2010	2015	2020	2021	2022
Denmark's population (in mill.)	5.12	5.14	5.33	5.54	5.66	5.82	5.84	5.87

The latest forecasts show that population growth will continue to be moderate in the years ahead. For example, the population is expected to reach 6.0 mill. in 2030, rising to 6.3 mill. in 2050.
Today, the population density is 136 per km^2.

Today, 81% of Danish wage earners are employed in service sectors, while 18% are employed in manufacturing, construction and supply sectors and 1% in agriculture, forestry and fisheries.

2.1.3 Geographical profile

Denmark consists of the Jutland peninsula and more than 400 islands. It has a total area of 43,054 km^2 and lies at about 55° N and 11° E.

The whole of the country is lowland. The surface was formed by Ice Age glaciers and glacial streams. The highest hill is approximately 170 metres above sea level.

The coastline has a length of more than 7,300 km. To protect low-lying land against flooding and storm surge, it has been necessary to build dikes or other permanent installations along about 1,800 km of coastline. In addition, sandbags, breakwaters and similar protect other parts of the coastline, which would otherwise erode because they consist of soft materials deposited during the last Ice Age.

A rise in the water level due to climate change would obviously affect the protection of the coasts and create a greater risk of flooding and erosion.

The Danish landscape is indelibly stamped by the high population density. More than 60% of the land is used for agriculture or horticulture. Woodlands take up approx. 13%, while towns, roads and scattered habitation take up 14%. The rest is nature or listed areas such as lakes, watercourses, heaths, dunes and beaches.

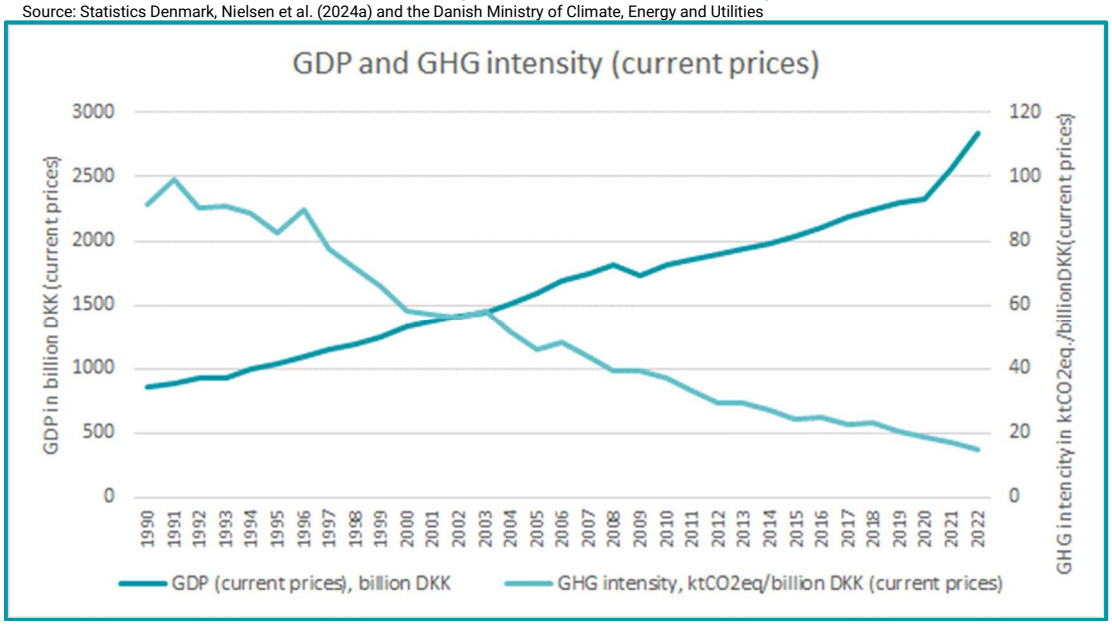
In relation to its size, Denmark is home to a wide variety of flora and fauna - in all, about 30,000 native, introduced or invasive species of plants and animals, excluding bacteria, unicellular algae and certain lower animal groups.

2.1.4 Economic profile

From 1990 to 2021 the Danish economy grew at an average annual growth rate of 1.8% measured in GDP (fixed prices). In 1993, 2008, 2009 and 2020 the economy contracted by 0.1%, 0.4%, 5.0% and 1.8% respectively. In 2021 and 2022 the economy showed positive growth rates again after the COVID-19 crises growth rates of 7.4% and 1.5% respectively. In 2022, GDP (in current prices) was DKK 2,844 billion, corresponding to DKK 430 thousand per capita (1 Euro = approximately DKK 7.43 in 2022).

In Figure 2.1(1), the development in the economy 1990-2022 is shown together with the development in the greenhouse gas intensity (i.e. greenhouse gas emission per DKK GDP) in the same period. The decrease in greenhouse gas intensity suggests a decoupling of greenhouse gas emission from economic growth.

Figure 2.1(1) Develoments in the Danish economy and the greenhouse gas intensity 1990-2022.
Source: Statistics Denmark, Nielsen et al. (2024a) and the Danish Ministry of Climate, Energy and Utilities



Denmark has a very export and import intensive economy, and thus the country is sensitive to global economic trends. In addition, public expenditure accounts for a large part of final consumption, cf. Table 2.1(2).

Table 2.1(2) Key figures for the Danish economy. 1990-2022, DKK Billion, current prices
Source: Statistics Denmark.

Key parameters	1990	2000	2010	2020	2021	2022
	Billion DKK					
GDP	855	1,326	1,813	2,327	2,568	2,844
Imports	264	507	794	1,149	1,350	1,735
Exports	312	596	917	1,281	1,510	2,007
Consumer spending	425	625	870	1,090	1,188	1,246
Public expenditure	205	317	496	576	614	625
Gross investment	178	296	323	530	606	702

The Danish economy is specialised in the tertiary sectors, as both primary and secondary sectors, i.e. agriculture and industry, account for less than 20 percent of total gross value added (GVA), cf. Table 2.1(3).

Table 2.1(3) The business sector's contribution to Gross Value Added (GVA), 1990-2022, DKK million, Current prices
Source: Statistics Denmark.

Sector	1990	2000	2010	2020	2021	2022	Share in 2022
	Million DKK						%
Agriculture, Forestry and Fisheries	28,063	28,502	21,545	31,119	25,406	22,458	0.9
Raw materials, industry and energy	156,484	251,453	281,136	345,689	388,738	468,394	18.7
Construction	37,145	62,537	69,984	109,278	119,548	124,216	5.0
Trade, transport and communication	177,411	277,539	380,427	508,874	616,648	764,511	30.5
Finance and residential business	104,988	156,017	255,141	338,581	347,732	358,653	14.3
Services	238,562	366,169	556,928	687,782	740,434	769,514	30.7
Total	**742,653**	**1,142,217**	**1,565,161**	**2,021,323**	**2,238,506**	**2,507,746**	**100.0**

2.1.5 Climate profile

The Danish climate is temperate with precipitation distributed over the year. The country lies in the zone of prevailing westerly winds, which is characterised by fronts, low pressures, and changeable weather. Compared with other regions on the same latitude as Denmark, the climate is relatively warm due to the warm North Atlantic current that originates in the tropical sea off the southeast coast of the USA.

Denmark has a distinctly coastal climate, with mild, damp winters and cool, unsettled summers. Average temperatures vary from about two degrees in winter to about 16 degrees in summer. However, the weather in Denmark is greatly affected by the proximity of both the sea and the continent. This means that the weather can change, depending on the prevailing wind direction. The westerly wind from the sea brings relatively uniform weather in summer and winter: mild in winter and cool in summer. When the wind comes from south or east, the weather in Denmark is more similar to that of the continent: warm and sunny in summer and cold in winter. The weather in Denmark thus depends very much on the wind direction and the season.

Atmospheric pressure

Average atmospheric pressure in Denmark shows seasonal variation, on average reaching a minimum in November and a maximum in May.

Denmark's highest-ever atmospheric pressure, 1062.2 hPa, was recorded both in Skagen and in Copenhagen on January 23 1907, whilst just one month later, on February 20, the lowest atmospheric pressure in the history of Denmark was also recorded in Skagen, at 943.5 hPa.

Temperature

The annual mean temperature varies from year to year, from below 6ºC to 10ºC, with an average of 8.7ºC (1991-2020 level) and 9.1ºC (2011-2020 level)). The coldest year so far was 1879, with a mean temperature of 5.9ºC, while the warmest recorded year was 2014, with 10.0ºC. The five years 2007, 2014, 2018, 2020 and 2022 are the warmest ever recorded in Denmark. 2007, 2018 and 2022 all had a mean temperature of 9.5°C, 2020 had a mean temperature of 9.8°C. This is followed by 2006, 2008 and 2019 with 9.4°C. Since 1988, the majority of years has been warmer than the average 1991-2020, and the temperature has shown a sharply rising trend from the 1990s. Since 1870, the temperature in Denmark has risen by about 1.5ºC, but the ten warmest years have occurred between 1990 and the present. The present temperature level is the highest in the time series and the period 2011-2020 is the warmest decade since records began. See Figures 2.1(2) and 2.1(3).

Figure 2.1(2) Monthly Climatological standard normals for Denmark 1991-2020 (temperature and precipitation)
Source: https://www.dmi.dk/vejrarkiv/normaler-danmark/

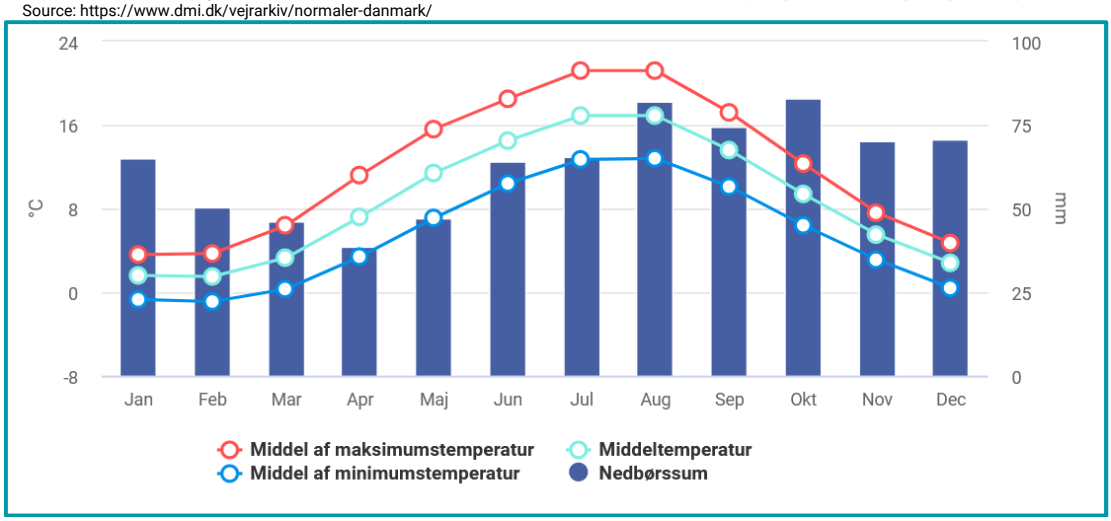
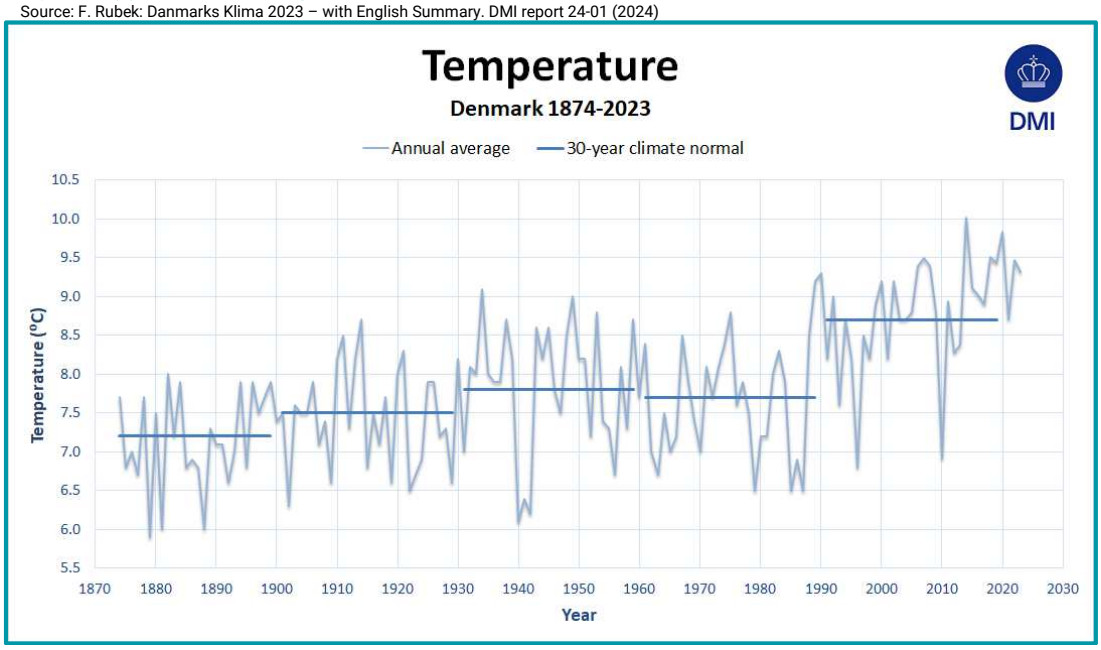


Figure 2.1(3) Annual mean temperature in Denmark 1874-2023 in °C, with climate normals
Source: F. Rubek: Danmarks Klima 2023 – with English Summary. DMI report 24-01 (2024)



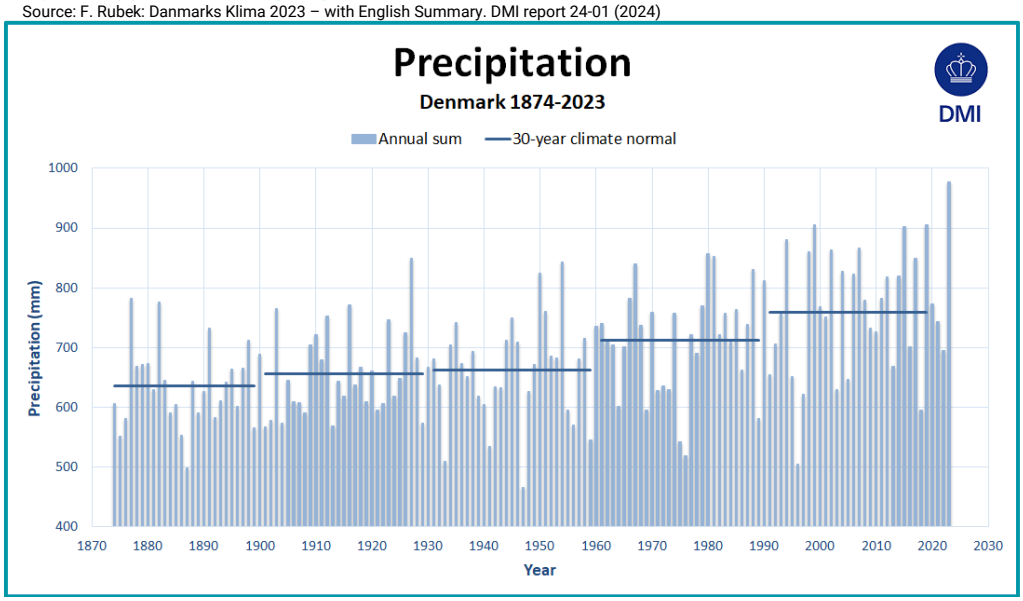
The temperature in January and February averages around 1.5ºC (1991-2020 level); around 1.8ºC (2011-2020 level) but can vary greatly from below -31ºC to more than 15ºC. The average temperature in July and August is around 16.9ºC (1991-2020); around 16.8ºC (2011-2020), but again can vary from -2ºC to more than 36ºC.

Precipitation
Average annual precipitation varies greatly from year to year and from place to place. The lowest annual precipitation for the country as a whole was 466 mm in 1947, and the highest was 977 mm in 2023, while the average annual precipitation is 759.1 mm (1991-2020 level); 781.6 mm (2011-2020 level).

The wettest period is normally June to January, while the driest is February to May.

In the winter months, precipitation is sometimes in the form of snow. Annual precipitation in Denmark has on average increased by about 125 mm since 1870. See Figures 2.1(2) and 2.1(4).

Figure 2.1(4) Danish annual precipitation 1874-2023 in mm, with climate normals
Source: F. Rubek: Danmarks Klima 2023 – with English Summary. DMI report 24-01 (2024)

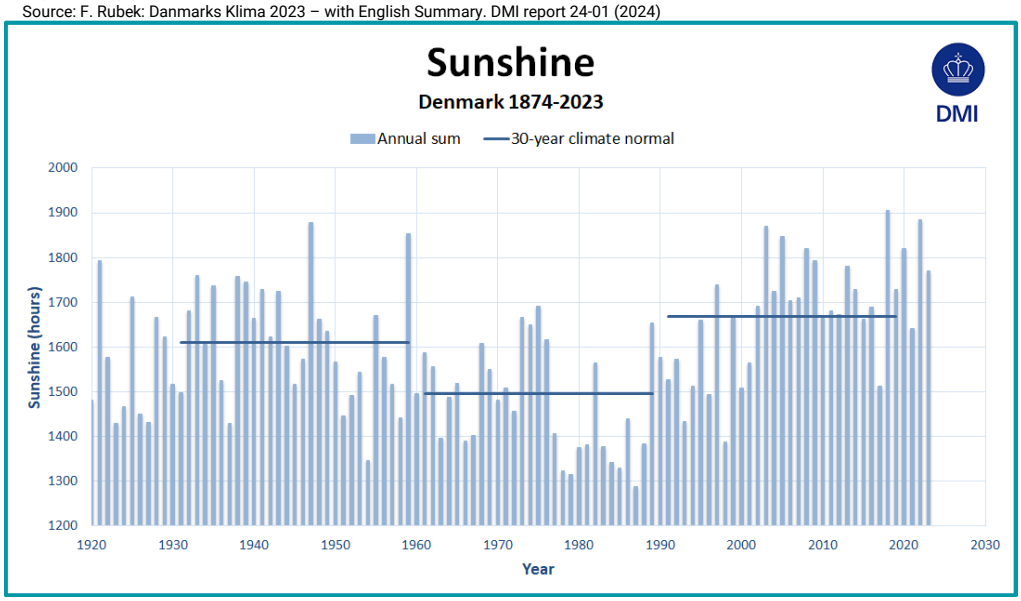


Hours of sunshine

On average, Denmark as a whole has 1,668.9 hours of sunshine annually (1991-2020 level); 1,717.9 hours (2011-2020 level), but this figure varies greatly from year to year. The sunniest year was 2018, with 1,905.0 hours, and the least sunny was 1987, with 1,287 hours. There is least sunshine in December and January, with an average of about 47 hours (1991-2020 level); 46 hours (2011-2020 level), while May, June and July have the most sunshine, with an average of about 231 hours (1991-2020 level); about 238 hours (2011-2020 level). Since 1980, the trend has been towards more hours of sunshine. See Figure 2.1(5).

Figure 2.1(5) Annual hours of sunshine in Denmark 1920-2023, with climate normals

Source: F. Rubek: Danmarks Klima 2023 – with English Summary. DMI report 24-01 (2024)



Wind

The annual mean wind velocity at three coastal locations, Skagen, Hvide Sande and Gedser are between 7.0 to 7.8 m/s (1989-1998 level), and the wind is most frequently from westerly directions, from which about 30-40% of all winds come.

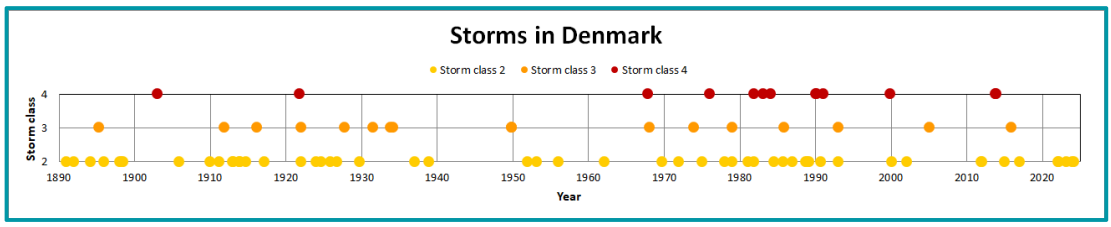
The number of days with severe wind (≥ 10.8 m/s) varies from about 30 in some places inland to above 170 days at Skagen. On average, wind above storm force (≥ 24.5 m/s) occurs along the Danish coasts every second or third year. A Danish list of storms has 86 cases with storm force and above in the period Jan. 1 1891 – Oct. 1 2024. In December 1999 large parts of Denmark were hit by the worst-ever measured hurricane, and in the North Sea at an oil rig mean wind velocities (average over 10 minutes) of more than 50 m/s (approx. 180 km/h) were recorded, with gusts of about 60 m/s (approx. 216 km/h). During hurricane "Allan" on October 28 2013 record-breaking 10 minutes mean winds; 39,5 m/s (approx. 142 km/h) and gusts; 53,5 m/s (approx. 193 km/h) were registered at two coastal stations.

Since the mid 1800's and up until today, studies show no general change, only variations, in wind climate.

A windier climate was registered at the beginning and end of the 1900's, whereas the period from 1930 to early 1960's has been relatively less windy, like the first decade of this millennium. In the last couple of years hurricanes/strong storms seem to have changed this picture, see Figure 2.1(6). Class 4 storms are ≥ 28,5 m/s, class 3 are ≥ 26,5 m/s and class 2 are ≥ 24,5 m/s.

Figure 2.1(6) Danish hurricanes and hurricane-like storms in 5-year groups 1891-2024 (until October 1).

Source: https://www.dmi.dk/fileadmin/user_upload/Bruger_upload/Stormlisten/STORMS_IN_DENMARK_SINCE_1891.pdf



2.1.6 Sector details - Energy

Energy production and energy-consuming activities are one of the main contributors to the emissions of greenhouse gases in Denmark. In 2022 the energy sector alone (energy production, supply and fugitive) accounted for 20% of Denmark's total emissions of greenhouse gases (including LULUCF), primarily CO_2. In addition there are emissions from the energy-consuming activities in the business, transport and household sectors.

Production of primary energy
Primary energy refers to crude oil, natural gas, renewable energy (including renewable waste) and non-renewable waste.

In 2022, primary energy production was 415 PJ. As can be seen from Table 2.1(4), primary energy production peaked at 1312 PJ in 2005. After the peek, production of oil and gas in the North Sea has declined so Denmark is no longer 100% self-sufficient in energy as shown in Table 2.1(5).

As also shown in Table 2.1(4) production of renewable energy is increasingly contributing to the country's energy supply.

Table 2.1(4) Primary Energy production (PJ)
Source: Danish Energy Agency (2023a)

	1990	1995	2000	2005	2010	2015	2020	2021	2022
Production, total	**424**	**655**	**1165**	**1312**	**979**	**676**	**398**	**398**	**415**
Crude oil	256	392	765	796	523	331	151	139	137
Natural gas	116	197	310	393	307	174	50	53	52
Renewable energy	45	57	76	106	131	156	181	190	210
Non-renewable waste	7	10	14	17	17	16	16	16	15

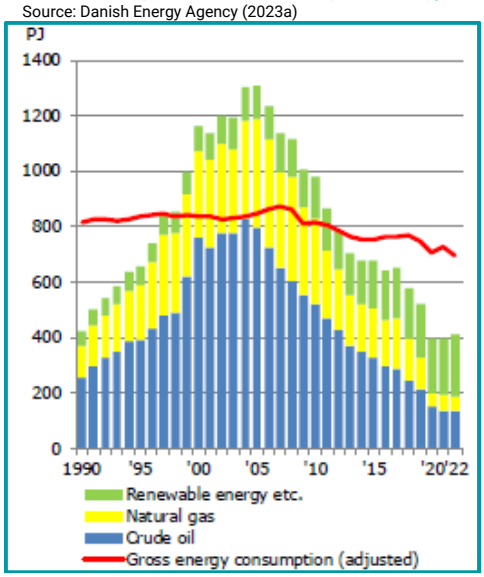
Table 2.1(5) Degree of self-sufficiency (%)
Source: Danish Energy Agency (2023a)

	1990	1995	2000	2005	2010	2015	2020	2021	2022
Energy, total	**52**	**78**	**139**	**154**	**120**	**90**	**56**	**55**	**60**
Oil	72	105	203	226	168	119	64	57	52

In 2022, there were twenty oil and gas fields of varying size in the so-called Central Graben of the Danish sector of the North Sea (fifteen oil and five gas fields). Seven fields are situated in the northern part of the Central Graben, while all the other fields are situated in the southern region of the Central Graben. Denmark is the third largest oil producer in Western Europe. The offshore Tyra gas field in the North Sea has been shut down for redevelopment from September 2019 to March 2024.

The developments in the production of oil and gas in the North Sea 1990-2022 are shown in Figure 2.1(7) together with the developments in production of renewable energy etc. and the gross energy consumption in Denmark in the same period.

Figure 2.1(7) The developments 1990-2022 in Denmark's production of crude oil, natural gas and renewable energy etc. as well as the development in Denmark's gross energy consumption (Adjusted) in PJ
Source: Danish Energy Agency (2023a)

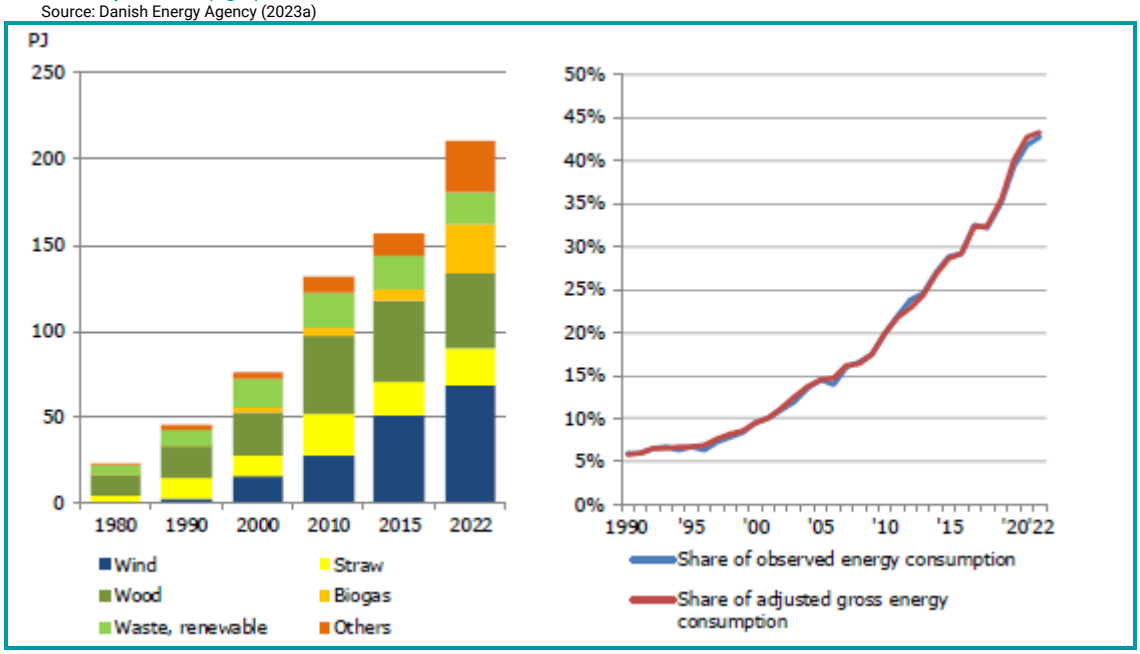


Production of renewable energy includes wind power, wood, straw, biogas, renewable waste and others (hydropower, geothermal energy, solar energy and heat pumps). Production of renewable energy was 210 PJ in 2022, which is an increase of 363% compared to 1990.

In 2022, wind power production was 68 PJ. Production from wood products, biogas, straw, renewable waste (i.e. the carbon fraction of biogenic origin), heat pumps and solar in 2022 was 44 PJ, 29 PJ, 21 PJ, 19 PJ. 18 PJ and 11 PJ, respectively.

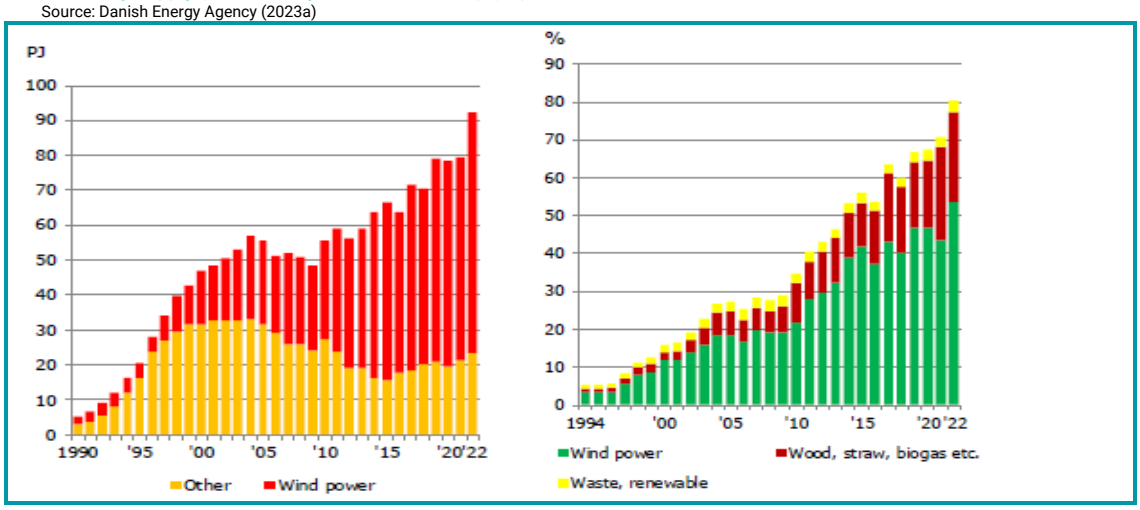
The development in renewable energy production by type and in share of total energy consumption is shown in Figure 2.1(8).

Figure 2.1(8) The development in Denmark's production of renewable energy - by type in PJ (left) and as share of total energy consumption in % (right)
Source: Danish Energy Agency (2023a)



Production of electricity and district heating
In 2022, electricity production was 126 PJ. Electricity is generated at large-scale power units, at small-scale CHP units, by wind turbines and by autoproducers (i.e. small producers, whose main product is not energy). The development 1990-2022 in electricity production by type and the share of domestic electricity supply generated by renewables is shown in Figure 2.1(9).

Figure 2.1(9) The development 1990-2021 in Denmark's electricity production by type in PJ (left) and the share of domestic electricity supply generated by renewables in % (right)
Source: Danish Energy Agency (2023a)



Large-scale power units generate electricity, partly as separate electricity production, and partly as combined heat and power production (CHP).

Of the total electricity production of 126.4 PJ in 2022, wind turbines, photovoltaics and a very small amount of hydropower contributed with 76.5 PJ (60.5%). Electricity is also produced at central plants as combined electricity and heat production (CHP) or as separate electricity production. In 2022, 34.2 PJ (27.0%) came from central plants – with 20.5 PJ (16.2%) from CHP and 13.7 PJ (10.8%) from separate production. The separate electricity generation varies much from year to year as a result of fluctuations in foreign trade with electricity. In 2022, electricity production from decentralized plants and secondary producers were 7.6 PJ(6.0%) and 8.2 PJ (6.5%) respectively.

In Denmark, the foreign trade in electricity varies more than in any other European country. Foreign trade is strongly affected by price trends on the Nordic Electricity Exchange, Nord Pool, which is significantly influenced by the varying precipitation patterns in Norway and Sweden where electricity production is dominated by hydropower. In 2022, Denmark had overall net imports of electricity of 4.9 PJ. This was the result of net imports of 7.2 PJ from Norway and 27.4 PJ net imports from Sweden, whilst the net exports to Germany was 24.0 PJ and 5.6 PJ to the Netherlands. The peak in Denmark's greenhouse gas emissions in 1996 is interlinked with the peak in net exports of electricity in 1996.

By generating electricity and district heating together (CHP), it is possible to exploit the large amounts of heat generated through thermal production of electricity.

In 2022, 72.4% of thermal electricity production (i.e. total production excl. wind, solar and hydropower) was co-produced with heating as shown in Figure 2.1(11). This figure also shows a significant increase in this share compared with 1990 – a trend to be seen dispite large inter-annual variations primarily linked to inter-annual variations in wind power generation.

In 2022, 65.5% of district heating was co-produced with electricity. This share is still an increase in comparison to 1990, but also a significant decrease since the peak in 2006.

The development in district heating, both total and by fuel, is also shown in Figure 2.1(11) – together with the development in CO_2 emissions from production of district heating.

Figure 2.1(10) Net exports of electricity by country as the accumulated result for the year (negative = net import for the year), PJ

Source: Danish Energy Agency (2023a)

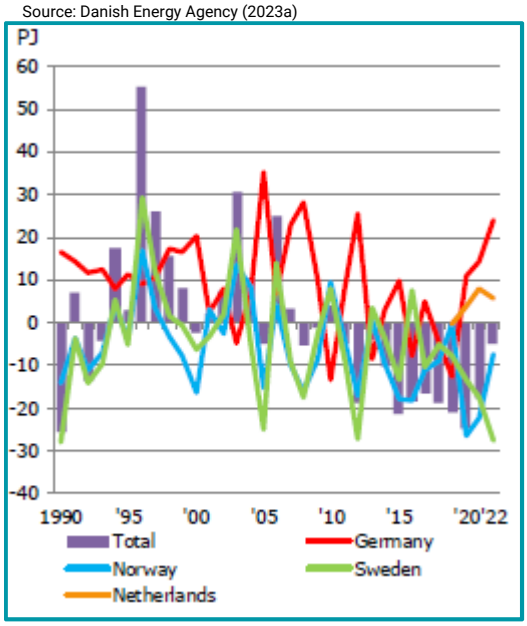
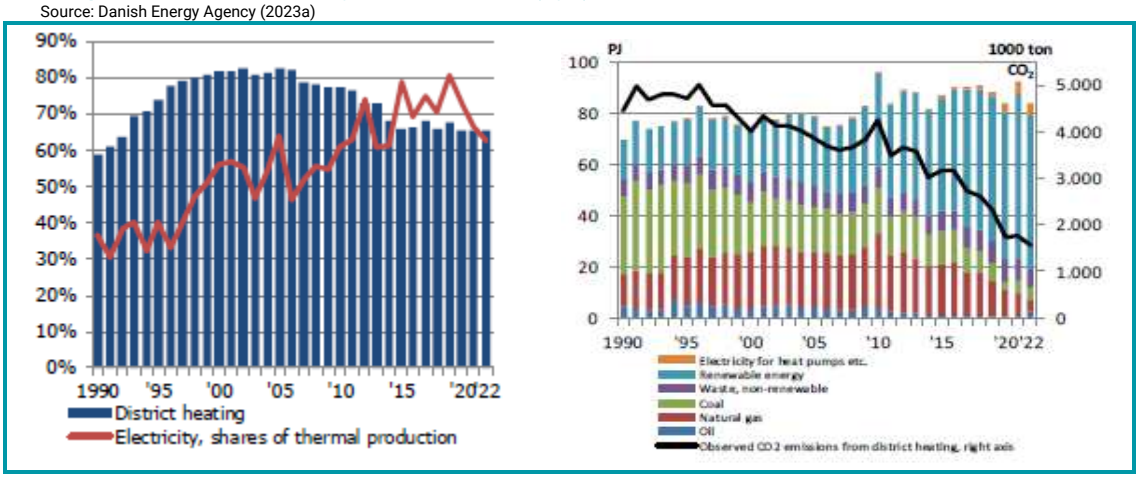


Figure 2.1(11) CHP shares of electricity and district heating production in % (left) and The development 1990-2022 in energy consumption for production of district heating in total and by fuel in PJ shown together with the development in CO_2 emissions from production of district heating in 1000 tonnes CO_2 (right)
Source: Danish Energy Agency (2023a)



Energy consumption
Despite the economic growth, total energy consumption has remained largely unchanged at between 750 PJ and 850 PJ since 1972, however with a decrease below 750 PJ since 2014 – partly due to an increase in net imports of electricity cf. Table 2.1(6), showing gross energy consumption without (i.e. observed) and with adjustments for foreign electricity trade and climate fluctuations.

Gross energy consumption
Observed gross energy consumption shows the registered gross amount of energy consumed in a calendar year. Observed gross energy consumption was 678 PJ in 2022, which is 9.9% lower than the 1990 level.

Denmark's dependence on oil and coal has fallen. In the production of electricity and heat in particular, oil and coal have been substituted with other fuels. Thus, renewable energy are increasingly being used in district heating. For electricity production, the share of renewables etc. has increased steadily since 1990.

For 2022, 42.8% of the observed gross consumption of energy shown in Table 2.1(6) was supplied by renewable energy. In 1990, the share was 6.0%. The renewable energy resources are mainly wind energy and biomass, which are used to produce electricity and combined heat and power or district heating, respectively.

In 2022, the adjusted gross energy consumption was 696 PJ as shown in Table 2.1(6), which is 15% lower than the 1990 level. In Table 2.1(6), the adjusted gross energy consumption is also shown by type of fuel.

The sectoral distribution of the adjusted gross energy consumption in 2021 was as follows: transport accounted for 28.4%, the household sector for 27.5%, industry and agriculture for 23.4%, commercial and public services for 15.3%, the energy sector for 4.2% and non-energy purposes for the remaining 1.3%.

Adjusted gross energy consumption is derived by adjusting observed energy consumption for the fuel consumption linked to foreign trade in electricity. The adjusted gross energy consumption is moreover adjusted for climate variations with respect to a normal weather year. The purpose of this consumption figure is to provide a clearer picture of trends in domestic energy consumption. Figure 2.1(12) compares the trend in observed energy consumption with the trend in adjusted gross energy consumption 1990-2022. The trend in adjusted gross energy consumption is also compared with the trend in GDP in the same period, including the trend in energy intensity (i.e. energy consumtion divided by GDP).

Figure 2.1(13) shows adjusted energy consumption by sector. Over the 42 years covered by the figure, consumption in the transport sector has risen, whereas consumption in the production sectors has fallen. Energy consumption in the household and service sectors as well as non-energy use has not changed much over the period, but some inter-annual variations can be seen. The peak 2005-2008 in

energy consumption in the energy sector coinside approximately with the peak in the production of oil and gas in the Danish part of the the North Sea.

Table 2.1(6) Observed and Adjusted* gross energy consumption in PJ and breakdown by fuels (* adjusted for climate fluctuations and net imports of electricity)
Source: Danish Energy Agency (2023a)

	1990	1995	2000	2005	2010	2015	2020	2021	2022
Total gross (observed)	**752**	**841**	**816**	**835**	**846**	**719**	**656**	**705**	**678**
Oil	343	372	370	348	316	276	236	245	260
Natural gas	76	133	186	188	185	120	84	86	61
Coal and coke	255	272	166	155	164	76	34	45	44
Waste, non-renewable	7	10	14	17	17	18	19	18	18
Renewable energy	45	57	79	122	168	208	259	294	290
Net imports of electricity	25	-3	2	5	-4	21	25	18	5
Net imports of district heating	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2021**	**2022**
Total gross (adjusted)	**819**	**840**	**839**	**850**	**814**	**755**	**705**	**729**	**696**
Oil	355	374	376	352	312	278	238	246	262
Natural gas	82	134	192	192	176	133	96	91	63
Coal and coke	327	265	175	166	147	111	69	63	52
Waste, non-renewable	8	10	14	17	16	18	20	18	18
Renewable energy	48	57	81	123	163	216	283	311	301
	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2021**	**2022**
Total adjustment	**67**	**-1**	**22**	**15**	**-31**	**36**	**49**	**24**	**18**
Adjustment for net import of electricity	25	-3	2	5	-4	21	25	18	5
Adjustment for climate fluctuations	41	2	20	11	-27	15	24	6	13

Figure 2.1(12) trends in observed and adjusted gross energy consumption (left) and trends in GDP, Adjusted gross energy consumption and energy intensity (right)
Source: Danish Energy Agency (2023a)

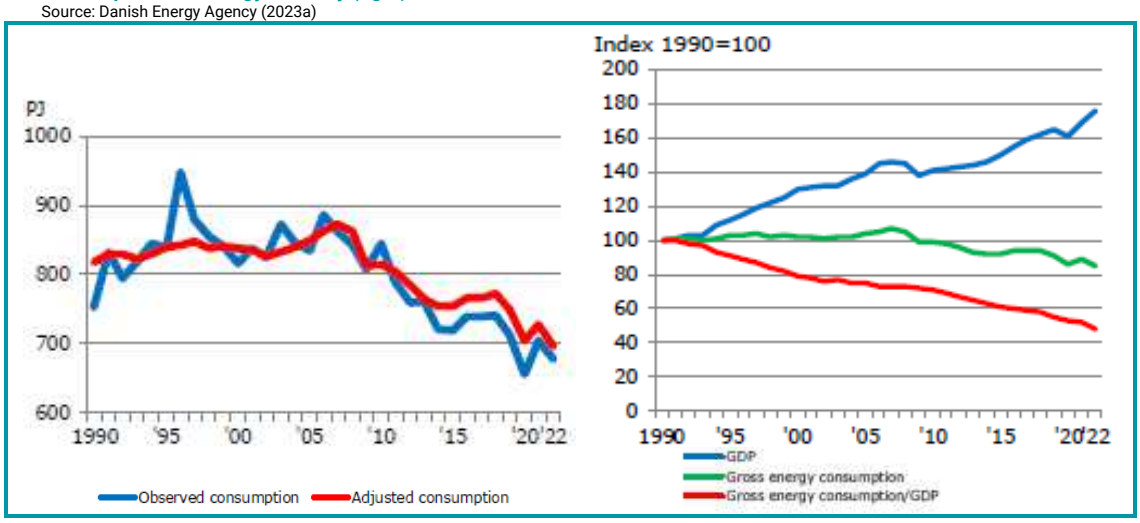
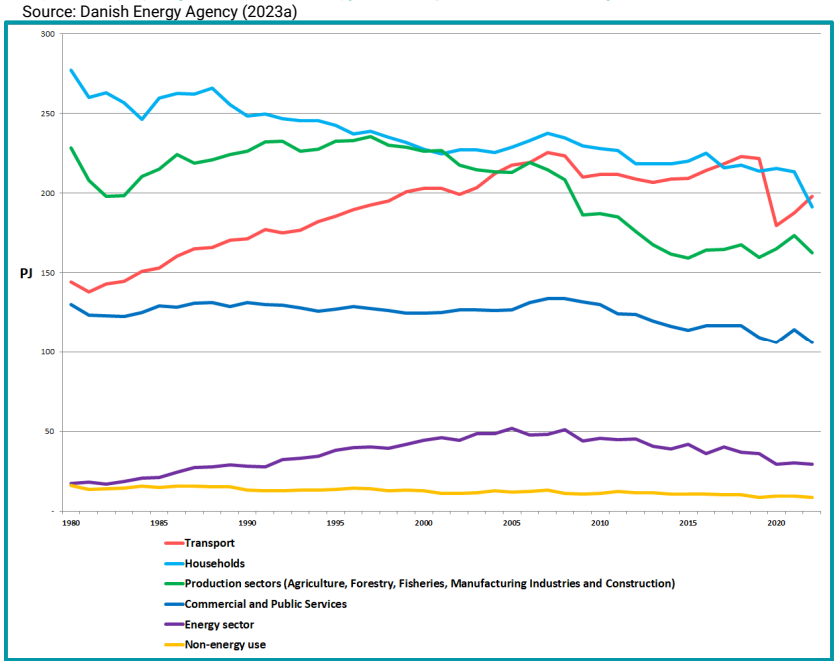


Figure 2.1(13) Adjusted gross energy consumption, breakdown by sector
Source: Danish Energy Agency (2023a)



Final energy consumption
The final energy consumption is derived by subtracting transformation and distribution losses as well as energy uses in the energy sector from the adjusted gross energy consumption. This is shown in Figure 2.1(14). The adjusted final energy consumtion by fuel and by sector is also shown in Figure 2.1(14) and – in more detail - in Table 2.1(7).

Figure 2.1(14) Adjusted gross energy consumption and adjusted final energy consumption (top) and adjusted final energy consumption by fuel (middle) and by sector (bottom)

Source: Danish Energy Agency (2023a)

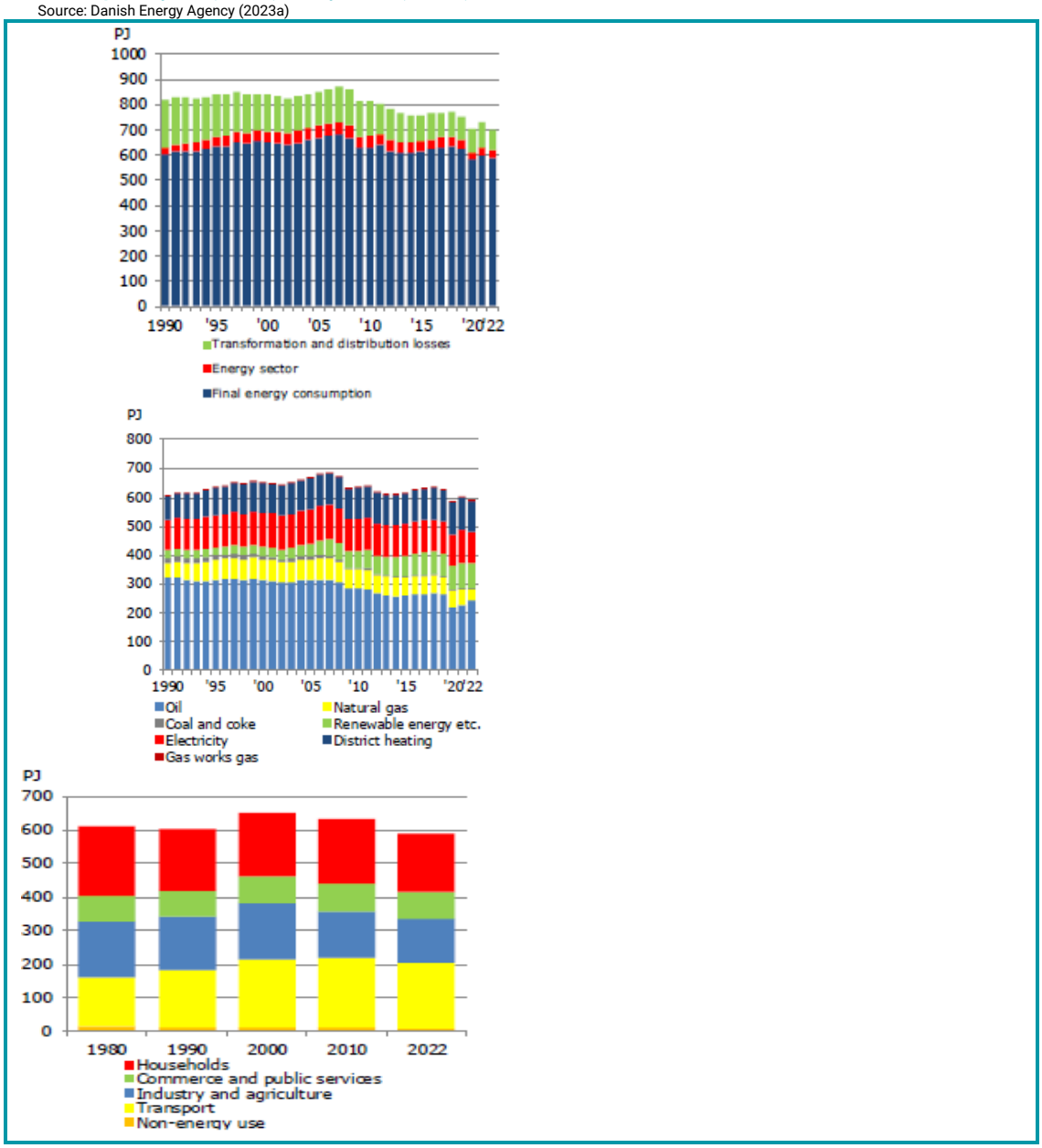


Table 2.1(7) Final energy consumption, Direct Energy Contents, Adjusted for climate fluctuations and net imports of electricity (PJ)
Source: Danish Energy Agency (2023a)

	1990	1995	2000	2005	2010	2015	2020	2021	2022
Total final (adjusted)	**604**	**635**	**651**	**666**	**633**	**615**	**582**	**599**	**589**
By energy commodity									
Oil	322	313	312	312	284	258	220	226	241
Natural Gas	50	70	73	72	68	62	54	53	38
Coal	17	16	12	11	6	5	5	6	4
Waste, Non-renewable	0	1	1	1	1	1	2	2	1
Renewable Energy	28	27	32	43	54	70	82	86	86
Electricity	103	111	118	121	115	111	109	115	110
District Heating	82	95	102	105	107	107	110	111	107
Gas Works Gas	2	1	1	1	0	1	1	1	1
By sector									
Non-energy Use	**13**	**13**	**13**	**12**	**11**	**11**	**9**	**9**	**9**
Transport	**170**	**184**	**201**	**216**	**210**	**208**	**178**	**185**	**195**
Road	130	140	154	162	161	159	152	155	153
Rail	5	5	4	4	5	5	4	4	4
Domestic Sea Transport	6	8	7	8	7	4	5	6	5
Aviation	28	29	35	38	36	38	15	19	32
Military	2	3	2	4	1	1	2	2	1
Agriculture and Industry	**159**	**167**	**167**	**158**	**137**	**122**	**127**	**134**	**130**
Agriculture, Forestry and Horticulture	33	32	32	29	29	28	25	25	25
Fishing	11	8	9	7	6	5	5	5	5
Manufacturing	109	120	118	113	95	83	90	95	91
Construction	6	7	8	8	7	7	8	9	9
Commercial and Public Services	**77**	**78**	**81**	**85**	**84**	**81**	**78**	**84**	**81**
Wholesale	14	13	14	13	11	11	10	11	11
Retail Trade	9	9	9	10	11	10	9	10	9
Private Service	29	31	33	36	37	36	35	38	37
Public Service	26	24	24	26	25	25	23	25	24
Households	**185**	**192**	**189**	**195**	**192**	**193**	**189**	**186**	**174**
Single-family Houses	137	142	140	144	141	142	138	135	124
Multi-family Houses	48	50	50	50	51	51	52	52	49

2.1.7 Sector details - Household sector

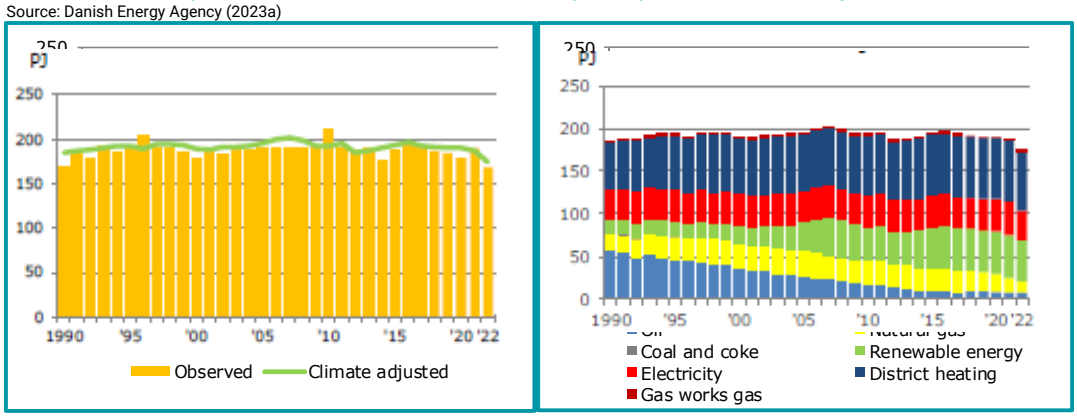
Household energy consumption has been rather constant over the period 1990-2022 as shown in Figure 2.1(15). Compared with 1990, climate-adjusted energy consumption of households decreased by 6.1%. The interannual variations show that household energy consumption is greatly influenced by

the weather. The years 1990, 2000 and 2014 were very hot years with low energy consumption, whereas 1996 and 2010 were exceptionally cold. In 2021 climate-adjusted energy consumption by households was 186.3 PJ, accounting for 31.2% of total final energy consumption in Denmark. 152.4 PJ of the 186.3 PJ was used for heating and 34 PJ were used for electrical appliances etc. Households also consume a small amount of motor gasoline for garden tools etc., LPG (bottled gas) and gas works gas for other purposes, which in the energy statistics is included under road transport.

There have been significant changes in the composition of household energy consumption since 1990 as shown in Figure 2.1(15). Oil consumption decreased throughout the period shown due to a shift to district heating and natural gas.

In 2022 district heating amounted to 39.9% of household energy consumption, and renewable energy and electricity amounted to 28.3% and 19.8%, respectively. Consumption of natural gas, oil and gas works gas amounted to 7.8%, 4.0% and 0.2%, respectively. Household electricity consumption remained more or less constant in the period 1990 to 2000. Electricity consumption showed an increasing trend from 2002 to 2006, whereas consumption in the period from 2009 to 2021 has fluctuated around approximately 35 and 39 PJ. From 2021 to 2022, electricity consumption showed a decrease of 11.4% to 34.5 PJ.

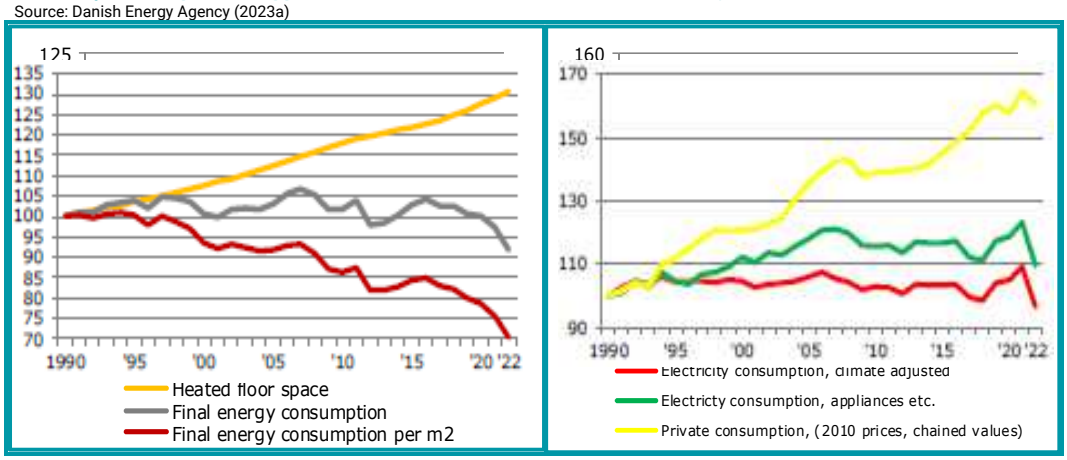
Figure 2.1(15) energy consumption in households – total and by energy products (Climate adjusted), PJ
Source: Danish Energy Agency (2023a)



In the period 1990 to 2020,except for 2001, 2012 and 2013, climate-adjusted energy consumption for heating (space heating and hot water) in dwellings has fluctuated between 0% and 7% above the level in 1990 as shown in Figure 2.1(16). This parameter showed a decrease in 2021 and even a further decrease in 2022, where it was 8.3% below the level in 1990. This is the combined result of a 30.5% increase in total heated area in the period 1990-2022 and a 29.7% decrease in energy consumption for heating per m^2. The latter can be explained by improvements in the insulation of older dwellings as well as a shift away from old oilfired boilers to more efficient natural gas boilers and district heating installations. In addition, according to the building regulations, new homes must have lower energy consumption per m^2 than existing homes. The increase in the use of biomass, which is less energy efficient, will have an effect in the opposite direction, however.

Dispite the economic development with a 60.6% increase in total private consumption from 1990 to 2022, total household electricity consumption decreased by 3.5% in the same period as shown in Figure 2.1(16). This is partly due to significant falls in the specific electricity consumption of electrical appliances. From Figure 2.1(16) it can be seen that electricity consumption for appliances and lighting etc. increased only by 9.4% in the same period.

Figure 2.1(16) Changes in energy consumption in households for heating compared with the area heated and Changes in electricity consumption for appliances etc. in households, excl. electric heating. Index 1990 = 100.
Source: Danish Energy Agency (2023a)



2.1.8 Sector details - Transport

Denmark is a relatively small and densely populated country with a large share of the population living in cities.

In urban areas most people have good access to public transport and major investments in better public transport infrastructure are currently taking effect. The main railway connection between West and East Denmark will be improved in the near future and this is expected to reduce travel times substantially and attract more travellers in years to come. Furthermore, the Copenhagen Metro is being extended with a circle line and a new connection to the north of Copenhagen Harbour. However, in many rural areas, public transport is less frequent than in the urban areas.

In Denmark, many commuters use their bicycle to travel to and from work and for other purposes, particularly during the summer. Even though the cost of car ownership is very high in Denmark compared to neighbouring countries, there are approximately 2.8 mill. registered passenger cars in Denmark.

Efficient and flexible transportation of goods and persons is a vital element of the foundation of the Danish welfare society. At the same time, transport as such is an important economic sector that contributes to economic growth, employment, and foreign trade.

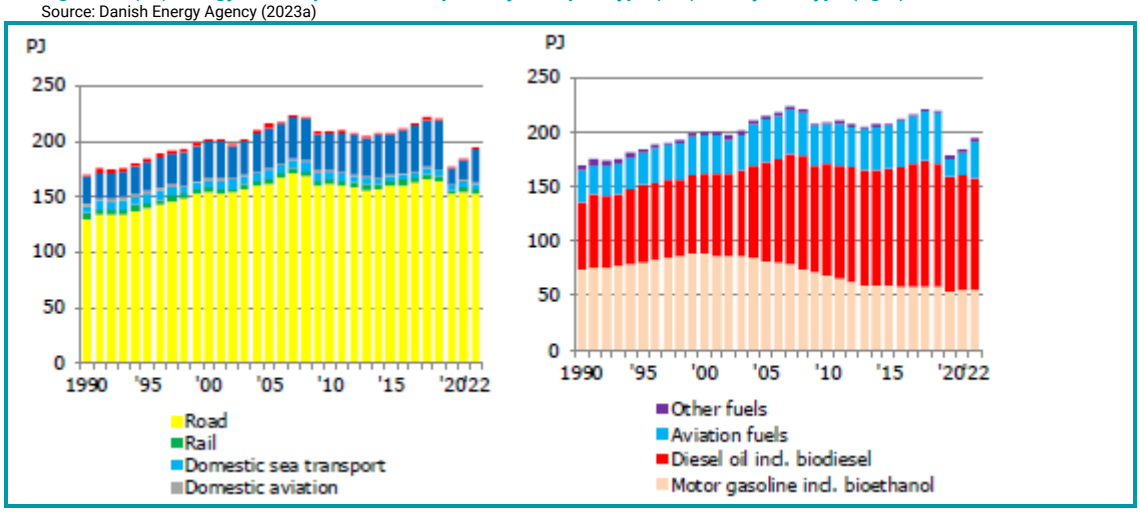
Denmark's geography, with most people travelling short distances to and from work and a very high number of inhabited islands, makes Denmark an attractive country in which to use electric cars. The range of an electric car is sufficient to cover most people's daily transport needs.

In the 1980s a nationwide network of gas pipelines connecting the gas in the North Sea to individual consumers was established. The conditions for wider use of natural gas in the transport sector are in place. Also, since Denmark is a country with a large agricultural sector, there are good possibilities for production of biogas, which could be used for transport.

The trends 1990-2022 in energy consumption for transport are shown in Figure 2.1(17) by transport type and by fuel type.

Energy consumption for transport followed an upward trend until 2007, when energy consumption was at 224.0 PJ (see Figure 2.1(17)). In 2009, energy consumption fell to 208.4 PJ. In 2022, energy consumption was calculated at 195.1 PJ, which is an increase of 5.4% from 2021. Compared with 1990, energy consumption for transport has increased by 14.6% in 2022. Energy consumption for road transport was 152.7 PJ in 2022, which is 1.3% lower compared with 2021. Energy consumption for road transport is calculated as sales in Denmark, adjusted for border trade. Energy consumption for international aviation grew steadily throughout almost the whole period 1990-2019. In 2020, consumption decreased significantly. From 2021 to 2022 consumption increased by 71.1%, but is in 2022 still 29.8% lower than in 2019 – the year before the COVID-19 pandemic.

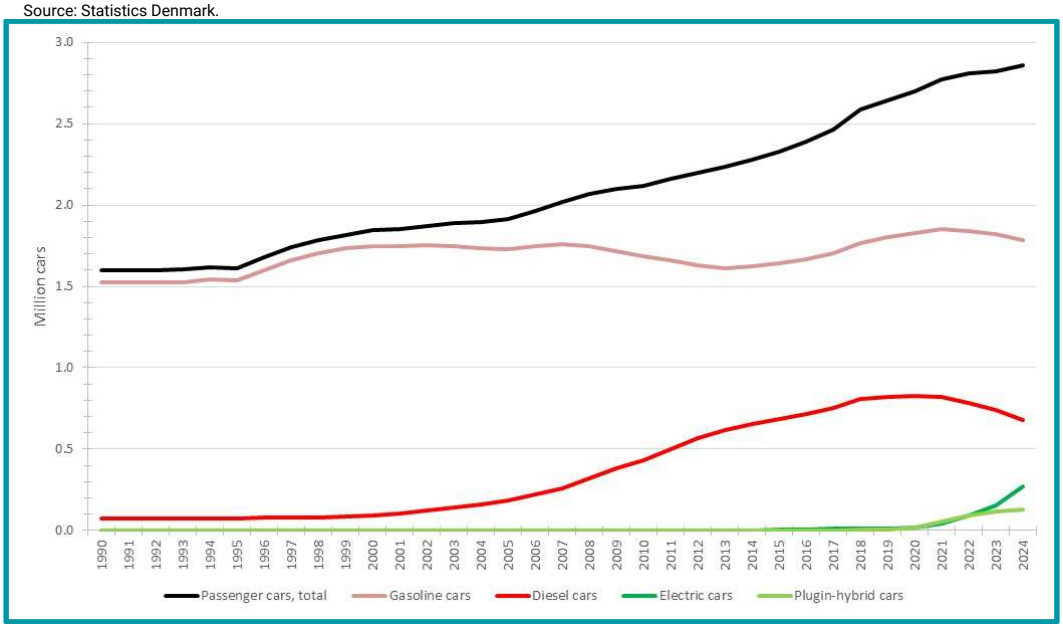
Figure 2.1(17) Energy consumption for transport - by transport type (left) and by fuel type (right) in PJ
Source: Danish Energy Agency (2023a)



Consumption of motor gasoline (including bioethanol) decreased by 0.7% from 2021 to 2022, while consumption of diesel oil (including biodiesel) decreased by 2.6%. Consumption of bioethanol and biodiesel together decreased by 8.9% from 2021 to 2022. Considering developments from 1990 to 2022, consumption of motor gasoline (including bioethanol) fell by 25.8%, while consumption of diesel oil (including biodiesel) grew by 67.4%. Consumption of aviation fuels increased by 12.8%. Consumption of other types of fuel fell by 23.3% in the same period. Other types of fuel include electricity consumption by railways.

In Figure 2.1(18), the trends in the number of registered passenger cars 1990-2024 as of 1st January are shown – both as total and by type of engine fuel. Some correlation between the development in the stock of gasoline and diesel cars and the consumption of gasoline and diesel shown in Figure 2.1(17) can be seen, but it should be noted, that diesel is also consumped by other types of vehicles (vans, buses, heavy duty trucks and trains). From Figure 2.1(18) it can also be seen that there has been and increase in the number of electric vehicles since 2020, which seems to continue, while the number of plugin-hybrid seem to have stabilised.

Figure 2.1(18) Number of passenger cars registered in Denmark as of 1st January 1990-2024, Total and by type of engine fuel, Million.
Source: Statistics Denmark.



2.1.9 Sector details - The business sector

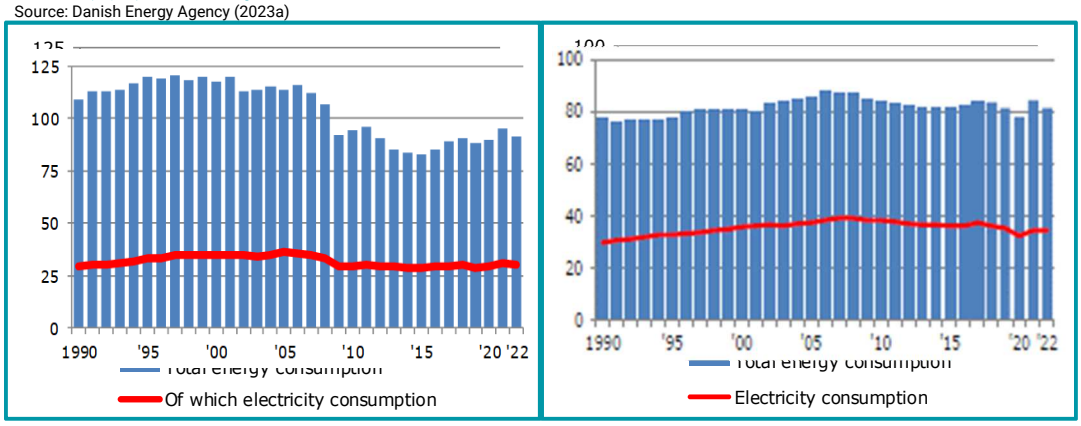
Industry's production value accounted for about 19.2% of total Danish production in 2022. Table 2.1(8) shows that the largest industries in Denmark in 2022 are the phamaceutical industries, the food, drink and tobacco industries and the machinery industries.

Table 2.1(8) Production Value by industry in 1990-2022, DKK million (current prices).
Source: Statistics Denmark.

	1990	2000	2010	2020	2021	2022
Total, Manufacturing industry	**358,876**	**506,516**	**575,193**	**783,563**	**859,758**	**1,012,909**
Food, drink and tobacco	109,680	117,015	132,532	161,378	163,355	186,851
Textile, leather and clothing	16,167	15,398	8,931	10,402	11,476	12,492
Wood, paper and printing	29,484	39,964	30,249	27,875	30,448	33,972
Refineries	9,796	18,855	27,803	20,404	30,875	58,614
Chemical industry	17,488	23,999	30,454	49,206	51,923	58,611
Phamaceuticals	9,073	30,924	61,327	144,037	159,557	204,158
Plastics, glass and cement	29,219	40,069	34,858	47,135	50,635	57,157
Metal	30,016	44,923	46,099	60,141	67,074	80,087
Electronics	15,938	31,776	28,781	34,410	39,852	42,575
Manufacturing of electrical equipment	11,283	16,145	17,067	19,124	20,750	24,039
Machinery	39,250	71,633	102,508	138,357	149,781	158,842
Transport equipment	15,002	16,007	12,799	11,254	12,788	14,110
Furniture and Other industries	26,478	39,809	41,787	59,841	71,243	81,400

In the energy statistics, manufacturing industry includes agriculture, forestry and horticulture, fishing, manufacturing (excl. refineries), as well as construction. In 2022, climate-adjusted energy consumption in manufacturing industry was 130.1 PJ, which is 2.6% lower than the year before. Compared with 1990, energy consumption decreased by 18.1%. Electricity consumption in 2022 was 38.0 PJ after adjusting for climate variation. This is a decrease by 3.7% compared with the year before. Compared with 1990, electricity consumption increased by 3.7%. The trends 1990-2022, both in total final energy consumption and electricity consumption in the manufacturing industry, are shown in the left side of Figure 2.1(19).

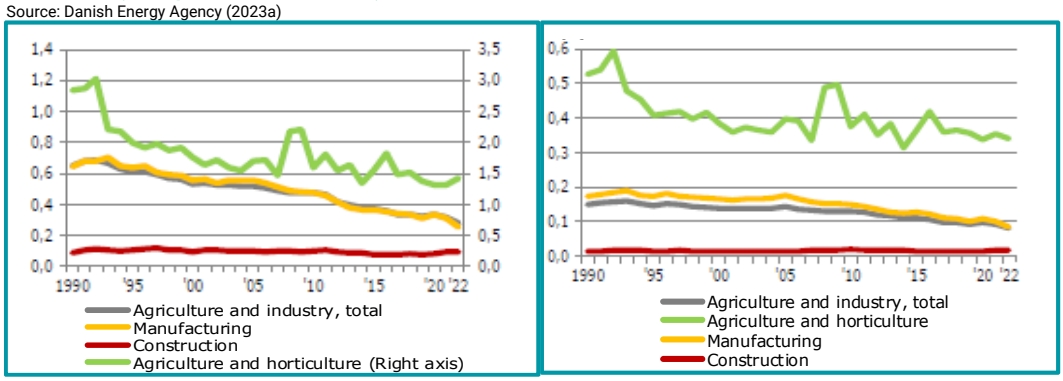
Figure 2.1(19) Energy and electricity consumption in manufacturing industry (left) and the commercial and public service sectors (right), climate adjusted, PJ
Source: Danish Energy Agency (2023a)



In the energy statistics, the commercial and public service sector includes wholesale, retail, private and public services. In 2022, climate-adjusted energy consumption was 81.3 PJ, which is 3.7% lower than the year before. Compared with 1990, consumption increased by 5.5%. Climate-adjusted electricity consumption in 2022 was 34.8 PJ, which is 0.5% more than the year before. Compared with 1990, electricity consumption increased by 15.4%. The trends 1990-2022, both in total final energy consumption and electricity consumption in the commercial and public service sector, are shown in the right side of Figure 2.1(19).

From the mid 1980s and to around 1990, energy intensity (energy consumption in relation to gross value added) for the business sector remained at the same level. Since 1990 the energy intensities in the different subsectors, except for construction, have shown decreasing trends as shown in Figure 2.1(20).

Figure 2.1(20) Trends in energy (left) and electricity (right) intensities in agriculture and industry, climate adjusted, TJ per DKK million GVA (2010 prices, chained values)
Source: Danish Energy Agency (2023a)

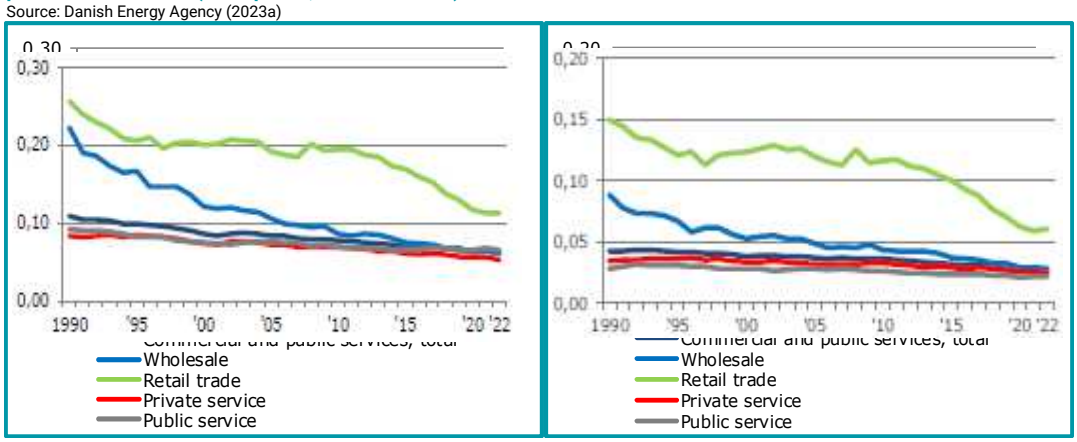


The change in the trends in energy and electricity intensities in the beginning of the 1990s corresponds with a move from a period of low economic growth to a period of high growth, implying better utilisation of production capacity. At the same time, from 1993 the first CO_2 taxes were introduced on energy consumption by businesses, with associated subsidies for energy savings, agreement schemes etc. Advice to businesses from electricity companies was also introduced in the early 1990s.

The main measures to curb the industrial sector's energy consumption have been based on the green tax package for businesses passed by the Danish parliament in mid 1990s.

As shown in Figure 2.1(21), there has been a steady decrease in energy intensity for the commercial and public services sectors since 1990. Energy intensity in the commercial and public services sector fell by 44.2% from 1990 to 2022. In the same period also the electricity intensity fell in the commercial and public services sector, but only by 38.9%.

Figure 2.1(21) Trends in energy (left) and electricity (right) intensities in commercial and public services, climate adjusted, TJ per DKK million GVA (2010 prices, chained values)
Source: Danish Energy Agency (2023a)



2.1.10 Sector details - Waste

The waste sector's contribution to emissions of greenhouse gases consists primarily of methane. Methane emissions come from the decomposition of organic waste at landfill sites and – with an increasing share – from biogas plants, wastewater treatment and compost production.

In 2022, a total of 22.0 million tonnes of waste, including soil and rocks from earth and construction works, were generated in Denmark of which 45% were soil and rocks from earth and construction works, 41% were recycled or re-used, 12% were incinerated af 2% were land-filled, the latter equal to 0.4 million tonnes of waste.

Methane emissions from the waste sector are expected to fall in the future because the municipalities are now obliged to assign all waste suitable for incineration to incineration plants. This means that only a small quantity of organic waste will be deposited at landfills compared with the quantity deposited before the introduction of this obligation in 1997.

In addition, gas from a number of landfills is being used in energy production, which contributes to a direct reduction in methane emissions and an indirect reduction in CO_2 emissions.

Emissions of the industrial gases HFC and SF_6 from disposal of, for example, refrigerators and certain thermal glazing, which contain these substances, are included under the business sector.

There are also CO_2 emissions in connection with disposal of oil-based products, e.g. packaging, plastic bags, etc. Since waste incineration in Denmark is included in energy production, these CO_2 emissions must be included under the energy sector in accordance with the inventory rules from the IPCC.

Finally, in connection with incineration, a large amount of the waste is used as an energy source. As many of the incineration plants as possible have been converted to CHP production. In other words, the heat is used to supply district heating, and the electricity is sold to electricity suppliers. In 2022, waste incineration contributed with 9.1% of total primary energy production in Denmark.

2.1.11 Sector details - Buildings and urban structure

One-twentieth of the area of Denmark is urbanised. 85% of Danes are town-dwellers, and most enterprises, institutions, etc., are situated in towns. Many air pollution problems are therefore concentrated in the towns.

On 1 January 2013, the total built-up area was 727.5 mill. m^2. Table 2.1(9) shows the distribution of the area between housing, factories, offices, etc.

Table 2.1(9) Key figures for the stock of buildings 2011-2022 (1 January), mill. m^2
Source: Statistics Denmark

	2011	2015	2020	2021	2022
Total building area	**716.8**	**734.4**	**759.8**	**775.6**	**781.6**
Buildings for year-round habitation	320.3	329.3	342.9	347.0	351.1
Factories and workshops	67.2	67.5	53.8	53.2	52.7
Commerce, trade and administration	71.5	74.5	90.8	92.1	92.7
Institutions and buildings for cultural and recreational purposes	120.4	126.1	146.7	160.6	170.9
Farm buildings	137.5	136.9	125.4	122.6	114.1

Today, about 6 Million m^2 are built per year. In recent years, house building has accounted for slightly more than half of all investment in building activities, and about half of the investment in the housing sector has gone on alterations and extensions.

Towns and cities are generally characterised by separation of residential and industrial areas, industrial buildings being situated in specially designated zones on the outskirts of the towns. The growth in the service industries and the growth in manufacturing with a small environmental impact imply new possibilities for integrating industry and housing, thereby reducing the need for transport between home and work.

Approximately two-thirds of the total building space is heated. The most important types of heating are district heating and central heating using gas and oil. Half of the heated space is heated by district heating and, as seen from Table 2.1(10), the use of both district heating and natural gas has increased at the expense of oil.

Table 2.1(10) Development in the main forms of heating in buildings, in % of total heated space

Source: Statistics Denmark.

	Unit	2011	2015	2020	2021	2022
Total heated space	Mill. m^2	495	508	529	541	546
District heating	%	51	52	54	55	55
Central heating with oil	%	17	15	11	10	9
Central heating with natural gas	%	18	19	18	18	17
Central heating with solid fuels	%	3	4	4	4	4
Heating with electricity	%	7	7	6	6	6
Furnaces fired by oil and similar	%	1	1	0	0	0
Furnaces fired by solid fuels	%	1	1	0	0	0
Heat pumps	%	1	2	4	5	6
Other heating	%	0	0	0	0	0
No heating or no information	%	1	1	1	1	1

2.1.12 Sector details - Agriculture

The agricultural area in Denmark has fallen from 72% (30,900 km^2) of the total area in 1960 to 63% (27,260 km^2) in 2022. Table 2.1(11) shows the breakdown of the development since 1990 by type of crop or use.

The proportion of agricultural land under grass and whole seed in rotation and permanent grass fell considerably from 1970 to 1990, but rose considerably during the 1990s, partly due to increasing use of grass fields for dairy farming, and partly due to the change in EU subsidy schemes, which means that grass or industrial seed must be grown on set-aside land. Furthermore the area with maize and cattle feed is included with the area with grass and whole seed, and the area with maize has increased significantly since 1980s. This is due in part to a warmer climate, which has made maize easier to grow.

During the 1990s interest in organic farming increased considerably. In 2022 organic farms accounted for approximately 10% of land under cultivation.

From 1980 to 2022 the number of farms fell with 75% from 119,155 to 30,035. In the same period the average size of farms increased from 24 ha to 83 ha. This development has reduced the importance of agriculture as a source of primary employment. However, in the same period agricultural production has grown, both in quantity and value, and agricultural exports still make up a large proportion of Denmark's total exports.

During the last 40 years use of nitrogen by agriculture has varied greatly. Up to 1990 there was a big increase in the use of fertiliser (both manure and chemical, but during the 1990s use of fertiliser decreased considerably until 2015. The trends in the statistics for imported chemical N-fertilisers show an increase again after 2015. The same trends can be seen for the import of phosphorus and potassium in fertilisers.

Cattle population fell by 45% from 1970 to 2022. Since 1990, there has been a decrease of 34% cf. Table 2.1(11). Most of the cattle are dairy cows. Since milk production remained approximately unchanged throughout the period, the fall in cattle population is due to higher productivity per animal. In the same period, the pig population increased by 50%. After peaking in 2020-2021 the pig population seems to be decreasing again. The sheep population has more than doubled in relation to 1970, while the poultry population in 2022 was a little above the level of 1970.

Since the 1980s, the initiatives aiming at protecting streams, lakes and coastal waters from leakage and run-off of nutrients from agriculture have also led to reductions in emissions of nitrous oxide from agriculture.

Table 2.1(11) Statistics on agricultural land, farms, chemical fertilisers and livestock
Source: Statistics Denmark

	Unit	1990	2000	2010	2020	2021	2022
Agriculture and horticulture in total	Km^2	27,883	27,697	27,563	27,386	26,912	27,260
Grain (to maturity)	%	56	57	56	52	52	50
Grass and whole seed in rotation	%	4	1	0	1	1	2
Grass outside of rotation	%	7	4	3	4	4	4
Industrial crops (seeds)	%	10	4	6	6	6	8
Root crops	%	2	3	3	4	4	5
Seeds for sowing	%	12	16	21	20	19	18
Set-aside	%	1	1	1	1	1	1
Pulses (to maturity)	%	8	6	8	8	9	9
Horticultural crops	%	-	-	1	1	1	1
Christmas trees and decorative greenery	%	-	7	1	3	3	4
Other crops	%	0	0	1	0	0	0
Area with organic farming	%	-	3	5	9	10	10
Total number of farms	No.	78,450	53,741	40,119	31,952	30,716	30,035
Average size of farms	ha	36	52	69	86	88	91
Nitrogen in chemical fertilisers	'000 tonnes N	400	252	190	252	228	239
Phosphorus	'000 tonnes P	41	18	11	17	18	12
Potassium	'000 tonnes K	129	73	42	61	63	44
Cattle	'000	2,239	1,868	1,571	1,499	1,488	1,471
Pigs	'000	9,497	11,922	13,173	13,163	13,168	12,373
Sheep	'000	159	145	160	135	135	180
Poultry	'000	16,249	21,830	18,731	22,133	21,892	23,058

2.1.13 Sector details - Forestry

Approximately 15% of Denmark is forested. Originally focus was mainly on the production potential of primarily conifers, but in recent years focus has changed towards indigenous, deciduous tree species as offering greater long-term production and nature potential. Denmark's forests are managed as closed canopy forests. The main objective is to ensure sustainable and multiple-use management of the forests and to manage them in line with overall management of the countryside. Instead of clear-cut systems, forest owners are to a higher degree applying near-to-nature forest management regimes. Unlike our Scandinavian neighbours, in Denmark forestry does not play an important role in the national economy.

The Danish Forest Act protects a very large part of the existing forests against conversion to other land uses. This is also the case for afforested areas for which public subsidies are made available. In principle, this means that most of the forested land in Denmark will remain as forest.

The ambition is to have about 25% of Denmark's area forested by the end of the 21st century. A considerable increase in the forest area is therefore to be achieved.

2.1.14 General effects of the national circumstances on greenhouse gas emissions and removals over time

Denmark's national circumstances relevant to greenhouse gas emissions and removals are described in detail above. Among the most significant circumstances affecting greenhouse gas emissions and removals in Denmark are the following:

- Denmark is situated in a temperate climate zone. This implies a need for heating, especially during wintertime, and significant inter-annual variations in greenhouse gas emissions due to inter-annual variations in winter-temperatures.
- Denmark is an industrialised country with arable land and an economy based on manufacture of commodities, agricultural products and services for the global market. This implies a need for energy supply and electricity production.
- Denmark is a flat country. This implies insignificant access to hydro power in domestic electricity production and a long history of dependence on fossil fuels in the country's energy supply, especially coal and oil. Until 1980s this was almost solely based on imports, but in the period 1997-2012 Denmark was self-sufficient in energy due to production of oil and gas in the North Sea.
- Denmark has no nuclear power. Since 1990 Denmark has increasingly had a shift from coal and oil to natural gas and renewable energy sources, increased the use of combined heat and power production and decentralised power production, where the combined production is utilised for district heating. Together with improvements in energy efficiency, keeping energy demand almost constant despite a significant economic growth, and initiatives regarding the agricultural sector, waste, industrial greenhouse gases etc., Denmark's emissions of greenhouse gases related to domestic activities, including domestic electricity demand, have been decreasing.
- Denmark's electricity production capacity is an integral part of the Nordic electricity market, in which hydro power in Norway and Sweden is also an integral part. This implies significant inter-annual variations in Denmark's total greenhouse gas emissions, with elevated emission levels in years with low precipitation in Norway and Sweden and vice versa. In 1990, the base year under the United Nations Framework Convention on Climate Change and the Paris Agreement, Denmark's total greenhouse gas emissions were extremely low due to an extremely large electricity import from the Nordic countries, which experienced particularly high precipitation that year.

In addition to these highlighted general national circumstances and the details shown above, policies and measures in Denmark also affect Denmark's greenhouse gas emissions and removals. Further information on policies and measures relevant to Denmark's greenhouse gas emissions and removals is included in Chapter 2.4.

2.1.15 Institutional arrangements for the tracking of progress towards the implementing and achieving of the EU NDC

The EU's Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action ('Governance Regulation')[9] establishes a governance mechanism and specific arrangements to track the progress of the Union and its Member States towards the implementation and achievement of the EU's climate and energy targets and commitments under the UNFCCC and the Paris Agreement. These arrangements include the monitoring of GHG emissions and removals, the reporting of policies and measures, projections of GHG emissions and removals and progress on adaptation to climate change.

Under the Paris Agreement, the commitments for the EU and its Member States include the EU National Determined Contribution (EU NDC)[10]. Details of the EU NDC are given in Chapter 2.2 and Annex A1.

Under the Governance Regulation, the EU has established a Union Inventory System to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of the data reported

[9] Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, http://data.europa.eu/eli/reg/2018/1999/oj.

[10] https://unfccc.int/sites/default/files/NDC/2023-10/ES-2023-10-17%20EU%20submission%20NDC%20update.pdf

by the EU and its Member States. This inventory system includes a quality assurance and quality control programme, procedures for setting emission estimates, and comprehensive reviews of national inventory data to enable the assessment of compliance towards climate goals.

Each EU Member State compiles its GHG inventory in accordance with the requirements of the Paris Agreement[11] and the relevant Intergovernmental Panel on Climate Change (IPCC) guidelines[12]. Inventory data on GHG emissions and removals, including information on methods, are submitted electronically using a reporting system managed by the European Environment Agency (EEA). The submitted data are subject to quality control procedures and feed into the compilation of the GHG inventory of the EU. Net GHG emissions, calculated from emissions and removals reported in the GHG inventory of the EU, are the key information used for tracking progress towards the EU NDC target of a least -55% net emission change (i.e. a net emission reduction) by 2030 compared to 1990.

Given the scope of the EU NDC related to international aviation and navigation, a specific share of international aviation and navigation emissions as reported in the GHG inventory data is calculated based on the Joint Research Centre's Integrated Database of the European Energy System (JRC-IDEES)[13]. Details on the methodology applied to identify GHG emissions from international aviation and navigation in the scope of the EU NDC, which are added to the national totals from the EU GHG inventory, are given in Annex A2.

Under the Governance Regulation each Member State must report to the Commission biennially on the status of implementation of its integrated national energy and climate plans (NECPs). This process allows the Commission to ensure that the EU and the Member States remain on track to achieve the climate-neutrality objective and progress on adaptation. Under the Governance Regulation, Member States further operate national systems for policies and measures and projections and submit and report standardised information, which is subject to quality and completeness checks. Based on the submitted data, the EEA compiles projections of GHG emissions and removals for the EU. The EU-wide information is summarised annually in the Climate Action Progress Report[14] by the European Commission and in the 'Trends and projections' report by the EEA[15]. Both the Union and the national systems are subject to continuous improvements.

The national energy and climate plans (NECPs) were introduced by the Governance Regulation. For Member States, the NECP for 2021-2030 play a key role to enabling the tracking of progress towards the 2030 climate and energy targets. The update of the NECPs provides an opportunity for Member States to assess their progress, identify gaps and revise existing measures or plan new ones where needed.

Member States were due to submit their final updated NECPs, taking account of the Commission's assessment and recommendations, by 30 June 2024. Denmark submitted its NECP on 28 June 2024[16].

2.1.16 Institutional arrangements for implementation of the EU NDC

The EU and its Member States have set up a comprehensive system for the implementation of the EU climate change mitigation targets. The European Climate Law[46] sets the goal of climate neutrality by 2050 and the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. These targets cover emissions and removals that are regulated in the Union law.

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[11] Chapter II of the annex to decision 18/CMA.1, https://unfccc.int/documents/193408; and decision 5/CMA.3, https://unfccc.int/documents/460951.

[12] 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2006gl/; and on a voluntary basis: 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc.ch/report/2019-refinement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/.

[13] European Commission, Joint Research Centre, Rózsai, M., Jaxa-Rozen, M., Salvucci, R., Sikora, P., Tattini, J. and Neuwahl, F., JRC-IDEES-2021: the Integrated Database of the European Energy System – Data update and technical documentation, Publications Office of the European Union, Luxembourg, 2024, https://publications.jrc.ec.europa.eu/repository/handle/JRC137809.

[14] Climate Action Progress Report 2024, https://climate.ec.europa.eu/document/download/d0671350-37f2-4bc4-88e8-088d0508fb03_en?filename=COM_2024_498_F1_REPORT_FROM_COMMISSION_EN_V4_P1_3729454.PDF

[15] Trends and Projections in Europe 2024, https://www.eea.europa.eu/en/analysis/publications/trends-and-projections-in-europe-2024https://www.eea.europa.eu/en/newsroom/news/eea-trends-and-projections

[16] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu

To ensure that the EU and its Member States achieve their target, the 2030 Climate and Energy Framework was put in place. The main policies of this framework are the EU Emissions Trading System (EU ETS)[17], which caps GHG emissions in energy, industry, aviation and maritime transport; the LULUCF Regulation which includes national net removal targets for the LULUCF sector; and the Effort Sharing Regulation (ESR) which establishes national reduction targets for GHG emissions not covered by the EU ETS or the LULUCF Regulation i.e. domestic transport (excluding aviation), buildings, agriculture, small industry and waste. The implementation of the ESR is supported by additional sectoral policies and measures (details on EU policies and measures can be found in the EU BTR1 in the chapter on mitigation policies and measures). The legislative acts under the 2030 Climate and Energy Framework require the European Commission and the EU Member States to set up the institutional arrangements for implementing the specific policies and measures.

The revised EU ETS Directive increases the level of ambition in the existing system from 43% to 62% emissions reductions by 2030, compared to 2005 levels and extend the system to also apply to international maritime transport. A separate carbon pricing system will apply to fuel combustion in road transport and buildings and small-emitting sectors (ETS2) with a 42% emission reduction target compared to 2005 across the sectors covered. The amended Effort Sharing Regulation (ESR) increased, for the sectors that it covers, the EU-level GHG emission reduction target from 29% to 40% by 2030, compared to 2005, which translates in updated 2030 targets for each Member State. The new LULUCF Regulation sets an overall EU-level objective of 310 Mt CO_2 equivalent of net removals in the LULUCF sector in 2030.

The ESR sets national targets for the reduction of GHG emissions in the Member States by 2030. Member States are also subject to gradually decreasing annual emission limits for each year from 2021 to 2030. The annual progress towards the national targets under the Effort Sharing Legislation is assessed by comparing GHG emission levels from the sectors covered by the ESR with the relevant annual emission allocations under the legislation (AEAs). To achieve compliance under the ESR, Member States are permitted to use flexibility options to a certain extent.

Progress in the implementation of these policies and measures is monitored under the Governance Regulation. Relevant information which is reported regularly and archived at the EEA include GHG inventories, approximated GHG inventories for the previous year, information on policies and measures, projections, and progress towards the implementation of integrated National Energy and Climate Plans (NECP). This information helps the EU and its Member States to correct their course if progress towards the targets of the 2030 Climate and Energy Framework is behind schedule. As an example, the European Commission assesses the drafts of new or updated NECPs and provides recommendations for improved planning and implementation. In addition, the reported information is subject to quality checks, and the GHG inventories reported by EU Member States are subject to comprehensive reviews in 2025, 2027 and 2032.[18]

All EU legislation, including the legislation under the 2030 Climate and Energy Framework, is subject to a stakeholder engagement process. So-called 'better regulation tools' ensure that policy is based on evidence and the best available practice[19]. During the preparation of legislative proposals, the European Commission invites citizens, businesses and stakeholder organisations to provide their views on the subject of the new legislation. These comments are documented in a dedicated portal[20], and the European Commission reports on how it takes these comments into account in the development of the legislative proposals. Furthermore, the Governance Regulation sets requirements for Member States to ensure that the public is given early and effective opportunities to participate in the preparation of the NECPs.

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[17] This refers to the ETS1, i.e. the Emission Trading System for stationary sources (Chapter III of the ETS Directive) and for aviation and maritime transport (chapter II of the ETS Directive). Note that the 'Emissions trading system for buildings, road transport and additional sectors' (ETS2), added in 2023 as Chapter IVa of the ETS Directive, forms an instrument under the Effort Sharing Regulation (ESR).

[18] Consolidated text (2023) of Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, https://eur-lex.europa.eu/eli/reg/2018/1999/2023-11-20.

[19] Decision-making process, https://ec.europa.eu/info/strategy/decision-making-process/how-decisions-are-made_en.

[20] Have your say – Public consultation and feedback, https://ec.europa.eu/info/law/better-regulation/have-your-say_en.

2.2 Description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates

Under their updated NDC[21] the EU and its Member States, acting jointly, are committed to a legally binding target of a domestic reduction of net greenhouse gas emissions by at least 55% compared to 1990 by 2030. The term 'domestic' means without the use of international credits.

The NDC consists of a single-year target, and the target type is 'economy-wide absolute emission reduction'. The scope of the NDC covers the 27 Member States of the EU.

The 17 October 2023 updated NDC scope is supplemented by additional information to clarify the precise amount of international aviation and maritime emissions which are covered under the EU NDC.

Details on the EU NDC can be found in Table 2.2(1) and in Annex A1.

Table 2.2(1) Description of the NDC of the EU

Information	Description
Target and description	Economy-wide net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. The term 'domestic' means without the use of international credits.
Target type	Economy-wide absolute emission reduction.
Target year	2030 (single-year target)
Base year	1990
Base year value	Net greenhouse gas emissions level in 1990: 4,699,405 kt CO_2eq.
Implementation period	2021-2030
Geographical scope	EU Member States (Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden) including EU outermost regions (Guadeloupe, French Guiana, Martinique, Mayotte, Reunion, Saint Martin (France), Canary Islands (Spain), Azores and Madeira (Portugal)).
Sectors	Sectors covered as contained in Annex I to decision 5/CMA.3: Energy, Industrial processes and product use, Agriculture, Land Use, Land Use Change and Forestry (LULUCF), Waste. *International Aviation:* Emissions from civil aviation activities as set out for 2030 in Annex I to the EU ETS Directive are included only in respect of CO_2 emissions from flights subject to effective carbon pricing through the EU ETS. With respect to the geographical scope of the NDC these comprise emissions in 2024-26 from flights between the EU Member States and departing flights to Norway, Iceland, Switzerland and the United Kingdom. *International maritime Navigation:* waterborne maritime navigation is included in respect of CO_2, methane (CH_4) and nitrous oxide (N_2O) emissions from maritime transport voyages between the EU Member States.
Gases	Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), nitrogen trifluoride (NF_3)
LULUCF categories and pools	The included LULUCF categories and pools are as defined in decision 5/CMA.3.
Intention to use cooperative approaches	The EU's at least 55% net reduction target by 2030 is to be achieved through domestic measures only, without contribution from international credits. The EU will account for its cooperation with other Parties, including through the EU ETS, in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA.
Any updates or clarifications of previously reported information, as applicable	The information on the NDC scope contains clarifications/further details compared to the information provided in the updated NDC of the EU.

Note: This table is identical to the so-called "Appendix"-table in the Common Tabular Format (CTF) with the title 'Description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates,' submitted electronically in conjunction with this BTR and contained in Annex A1.
Source: Updated NDC of the EU[22]

[21] The update of the nationally determined contribution of the European Union and its Member States, https://unfccc.int/sites/default/files/NDC/2023-10/ES-2023-10-17%20EU%20submission%20NDC%20update.pdf.

[22] The update of the nationally determined contribution of the European Union and its Member States, https://unfccc.int/sites/default/files/NDC/2023-10/ES-2023-10-17%20EU%20submission%20NDC%20update.pdf.

2.3 Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement

2.3.1 Information on indicator, definitions, methodologies and progress

2.3.1.1 Indicator and definitions

This section addresses only the indicator for tracking progress. It is a common indicator for the EU and its Member States. CTF table 1 contains only one indicator.

For the tracking of progress towards implementing and achieving the NDC of the EU, an indicator is used which has the same unit and metric as the NDC base year and target values. The chosen indicator is:

Annual total net GHG emissions consistent with the scope of the NDC in CO_2eq.

Table 2.3(1) provides more information on this indicator.

Table 2.3(1) Indicator for tracking progress towards the implementation and achievement of the NDC of the EU

Information	Description
[CTF Table 1]	***Indicator***
Selected indicator	Annual total net GHG emissions consistent with the scope of the NDC in CO_2eq.
Reference level and base year	The reference level is total net GHG emissions of the EU in the base year (1990). The reference level value for the EU is 4,699,405 kt CO_2eq.
Updates	This is the first time the reference level is reported, hence there are no updates. The value of the reference level may be updated in the future due to methodological improvements to the EU GHG inventory and to the determination of international aviation and navigation emissions in the NDC scope.
Relation to the NDC	The indicator is defined in the same unit and metric as the target of the NDC. Hence it can be used directly for tracking progress in implementing and achieving the NDC target.
[CTF Table 2]	***Definitions***
Definition needed to understand each indicator:	
Annual total net GHG emissions	Total net GHG emissions correspond to the annual total of emissions and removals reported in CO_2 equivalents in the latest GHG inventory of the EU. The totals comprise all sectors and gases listed in the table entitled 'Reporting format for the description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates.' Indirect CO_2 emissions are included from those Member States that report these emissions.
Any sector or category defined differently than in the national inventory report:	
{Sector}	Not applicable
{Category}	Not applicable
Definition needed to understand mitigation co- benefits of adaptation actions and/or economic diversification plans:	
{Mitigation co-benefit(s)}	Not applicable
Any other relevant definitions:	
Not applicable	

Note: The information in this table is identical to the information in Common Tabular Format (CTF) tables 1 ('Description of selected indicators') and 2 ('Definitions needed to understand the NDC'), which are submitted electronically in conjunction with the BTR. These tables are also included in Annex A1 and Annex A2.

Source: The reference level is based on the Annual European Union GHG inventory 1990-2022.

2.3.1.2 Information on methodologies and accounting approach

The EU use the following accounting approach for tracking progress towards the joint EU NDC:

Annual GHG data from the national GHG inventory of the EU, complemented for international aviation and navigation with estimations from the Joint Research Centre's Integrated Database of the European Energy System[23].

[23] European Commission, Joint Research Centre, Rózsai, M., Jaxa-Rozen, M., Salvucci, R., Sikora, P., Tattini, J. and Neuwahl, F., JRC-IDEES-2021: the Integrated Database of the European Energy System – Data update and technical documentation, Publications Office of the European Union, Luxembourg, 2024, https://publications.jrc.ec.europa.eu/repository/handle/JRC137809.

The total net GHG emissions are provided in the scope of the EU NDC and are compared to the economy-wide absolute emission reduction target as defined in the NDC. The EU will account for its cooperation with other Parties in a manner consistent with guidance adopted by the CMA.

As far as emissions and removals from the LULUCF sector are concerned, net emissions are used for tracking progress towards the 2030 target of the NDC based on all reported emissions and removals.

Details on methodologies and accounting approaches consistent with the accounting guidance[24] under the Paris Agreement can be found in CTF table 3 ('Methodologies and accounting approaches') submitted electronically in conjunction with the BTR. This table is also included as Annex A1.

2.3.1.3 Structured summary – status of progress

An important purpose of the BTR is to demonstrate where the EU and its Member States stand in implementing their NDC, and which progress they have made towards achieving it. The most recent information on GHG emissions and removals in the scope of the NDC constitutes the key information for tracking this progress. Table 2.3(2) summarises the status of progress in 2022, which is:

31.8% below the base year value.

Table 2.3(2) Summary of progress towards implementing and achieving the NDC

Indicator	Unit	Base year value	Values in the implementation period			Target level	Target year	Progress made towards the NDC
			2021	**2022**	2030			
Total net GHG emissions consistent with the scope of the EU NDC	kt CO_2eq	4,699,405	3,272,650	**3,205,223**	NA	(at least 55% below base year level)	2030	The most recent level of the indicator is: **31.8% below** the base year level.

NA: Not Applicable.
Comment: Note that an annual emissions balance consistent with chapter III.B (Application of corresponding adjustment) will be provided in a subsequent BTR upon finalisation of relevant further guidance by the CMA, based on the annual information reported under Article 6.2.
Note: More detailed information can be found in CTF table 4 ('Structured summary: Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement') submitted electronically in conjunction with the BTR. This table is also included as Annex A1.
Source: The indicator values are based on the Annual European Union GHG inventory 1990-2022.

Based on the GHG inventory data and data on international aviation and navigation for 2022, the EU and its Member States reduced net GHG emissions by 31.8 % compared to 1990. The EU and its Member States made progress towards implementing and achieving their NDC. The legal and institutional framework is in place to make further progress in the years ahead and to achieve the NDC target by 2030.

[24] Decision 4/CMA.1, Further guidance in relation to the mitigation section of decision 1/CP21, https://unfccc.int/documents/193407.

2.4 Mitigation policies and measures, actions and plans - related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement

2.4.1 Climate policy and the policy-making process

Since the Brundtland Commission's report, "Our Common Future", from 1987, Denmark's climate policy has developed in collaboration with the different sectors of society, and in line with international climate policy, and results from related scientific research.

Thus, since the end of the 1980s a considerable number of measures to reduce emissions of greenhouse gases have been implemented.

Some of the measures have been implemented with reduction of greenhouse gas emissions as the main objective, others were aimed at achieving environmental improvements for society in general, e.g. by introducing environmental taxes and involving the public in the debate and decisions concerning the environment.

Since 2001, focus has also been on efforts to reduce emissions and meet the near-term international greenhouse gas emission reduction targets – i.e. for 2008-2012 under the first commitment period of the Kyoto Protocol and the EU Burden Sharing, for 2013-2020 under the second commitment period of the Kyoto Protocol and the EU Effort Sharing Decision and for 2021-2030 under the Paris Agreement and the EU burden sharing of the EU National Determined Contribution through the EU Effort Sharing Regulation – with view to meet the long-term EU target: a climate-neutral society by 2050. Denmark's international climate targets are described in Box 2.4(1).

Box 2.4(1) International climate targets

Since 1990 Denmark has undertaken or committed itself to several targets with respect to reducing greenhouse gas emissions:

- In accordance with the Climate Convention, to reduce total emissions of greenhouse gases in Denmark, Greenland and the Faroe Islands to the 1990 level by 2000. This target was achieved for total emissions excluding the land-use sector (LULUCF). Due to windfalls total emissions including LULUCF brought the Realm to within 1% of the target.
- As a contribution to stabilisation in the EU, Denmark committed itself to reducing CO_2 emissions in 2000 by 5% compared to the adjusted level for 1990. This target was fulfilled.
- In relation to the Kyoto Protocol, for the period 2008-2012 the EU committed itself to reducing emissions of greenhouse gases on average to 8% below the level in the base year; 1990 for CO_2, methane, and nitrous oxide and either 1990 or 1995 for industrial greenhouse gases. Denmark committed itself to a reduction of 21% as an element of the burden-sharing agreement within the EU. Both Denmark and the EU reached these targets for 2008-2012.
- In relation to the period 2013-2020, the EU reached an agreement in December 2008 on a climate and energy package and on a regulation on CO_2 from new vehicles. According to this package the EU was committed to reduce its overall emissions to at least 20% below 1990 levels by 2020. Under the EU burden sharing of the joint EU target for 2020, Denmark was committed to a reduction in non-ETS emissions in the period 2013-2020, rising to 20% by 2020 relative to 2005. The EU was also committed to reduce its ETS emissions to 21% below 2005 levels by 2020. The EU had also set itself a target of increasing the share of renewables in energy use to 20% by 2020. Under burden sharing of this EU target, Denmark was committed to reach a 30% share of renewables in energy use by 2020. Both Denmark and the EU reached these targets for 2013-2020.
- In relation to the period 2021-2030, the European Council agreed on the first 2030 climate and energy framework in October 2014. The first agreement on the 2030 framework, specifically the EU domestic greenhouse gas reduction target of at least 40%, formed the basis of the EU's contribution to the Paris Agreement. The EU's first so-called Intended Nationally Determined Contribution (INDC) was formally approved at an Environment Council meeting in March 2015. In May 2018 the EU member states reached the first agreement on the effort sharing for the period 2021-2030, where Denmark committed itself to a reduction in non-ETS emissions in the period 2021-2030 of 39% by 2030 relative to 2005. However, in June 2022, and as an implementation of the updated NDC submitted by the EU in December 2020 with a more ambitious EU domestic greenhouse gas reduction target of at least 55% by 2030 relative to 1990, Denmark committed itself to a reduction in non-ETS emissions in the period 2021-2030 of 50% by 2030 relative to 2005. The last two pillars in the necessary EU legislation for this so-called "Fit for 55"-package was adopted in October 2023. According to this package, the EU is also committed to reducing its ETS emissions to achieve the 55% below 1990 levels by 2030 in total greenhouse gas emissions. The EU has also set itself the target of increasing the share of renewables in energy use to 42.5-45% by 2030. Denmark's contribution to the EU's joint renewable energy target is under clarification. In addition to this total RES target, Denmark has a number of specific RES targets in different sectors according to the EU legislation. When it comes to energy efficiency Denmark has an obligation under the EU Energy Efficiency Directive to ensure that Denmark's final energy consumption will not exceed 575 PJ in 2030.

The following sections contain more information about Denmark's climate relevant action plans until now and the climate policy framework until 2030.
This section is followed by sector by sector descriptions of Denmark's climate policies and measures.

2.4.1.1 National action plans

In 1988 the government issued the Government's Action Plan for Environment and Development. The plan was a follow-up on the Brundtland Report and was based in principle on striving for environmentally sustainable development. One of the main messages in the plan was the need to integrate environmental considerations into decisions and administration within such sectors as transport, agriculture and energy.

In the years since then, a number of ministries have prepared sector action plans in which the environment is an integral element. The sector action plans deal with the entire development in a sector combined with solutions to environmental problems caused by the sector. The sector plans for energy, transport, forestry, agriculture, the aquatic environment, waste, and development assistance are important examples.

The plans from the 1990s all contained specific environmental objectives and, usually, deadlines for achieving them. In addition, there were a number of concrete initiatives that are intended to lead to achievement of the objectives. Progress has been evaluated regularly to check whether the implementation of the plans resulted in achievement of the objectives. The results of the evaluations have been presented in political reports from the sector ministries or in special follow-up reports.

The evaluations and follow-up have often given rise to the preparation of new action plans, either because additional initiatives have been necessary in order to achieve the objectives or because the development of society or developments within the area in question have made it necessary to change both objectives and initiatives. Major sector plans, strategies and agreements that have been of importance for the reduction of greenhouse gas emissions are:

- The NPO Action Plan on pollution from livestock manure (1985)
- Action Plan for the Aquatic Environment I (1987)
- Energy 2000 (1990)
- Action plan for sustainable development in the agricultural sector (1991)
- Strategy for sustainable forest management (1994)
- Strategy 2000 - Danish strategy in the development assistance area (1995)
- Energy 21 (1996)
- Action plan for reduction of the transport sector's CO_2 emissions (1996)
- National sub-strategy for Danish environmental and energy research (1996)
- Action Plan for the Aquatic Environment II (1998)
- Action Plan II - Ecology in Development (1999)
- Waste 21 (1999)
- Action plan for reduction of industrial greenhouse gas emissions (2000)
- Reduction of the transport sector's CO_2 emissions - possibilities, policies and measures (2000)
- Reduction of the transport sector's CO_2 emissions - the government's action plan (2001)
- Denmark's national forest programme (2002)
- Denmark's National Strategy for Sustainable Development (2002)
- National Climate Strategy for Denmark (2003)
- Waste Strategy 2005-2008 (2003)
- Action Plan for the Aquatic Environment III (2004)
- 1st National Allocation Plan 2005-2007 under the EU-ETS (2004)
- Energy Strategy 2025 (2005)
- Action Plan for Strengthened Energy-saving Efforts (2005)
- 2nd National Allocation Plan 2008-2012 under the EU-ETS (2007)
- Political agreement on Energy (2008)
- Political agreement on a Green Transport Vision for Denmark (2009)
- Political agreement on a Tax Reform (2009)
- Growth with Consideration – the government's strategy for sustainable development (2009)
- Strategy for reducing energy consumption in buildings (2009)
- Political agreement on a Green Growth Plan (2009)
- Waste Strategy 2009-2012 – Part I (2009)
- Waste Strategy 2009-2012 – Part II (2010)

- Energy Strategy 2050 (2011)
- Our Future Energy (2011)
- Political Agreement on Energy (2012)
- The Danish Climate Policy Plan – Towards a low carbon society (2013)
- The Agricultural Package (2016)
- The Energy Agreement (2018)
- Denmark's national forest programme (2018)
- The Climate and Air proposal "Together for a greener future" (2018)
- The political understanding "A fair direction for Denmark" (2019)
- Political agreement on a new Climate Act (2019)
- The Government's Climate Plan (May, 2020),
- Political Climate Agreement on Energy and Industy etc. 2020 (June, 2020)
- The Climate Plan for a Green Waste Sector and Circular Economy (June, 2020)
- The Danish Climate Act (June, 2020)
- The Government's Climate Programme 2020 and long-term strategy (Sep.2020)
- The Government's Climate Strategy (December, 2020)
- The Government's Climate Programme 2021 (September, 2021)
- Political agreement on a Green Transition of The Agricultural Sector (October, 2021)
- Political agreement on a Green Tax Reform (June, 2022)
- Political agreement on a new Green Fund in support of the green transition and the phasing out of fossil fuels (June, 2022)
- Political agreement on Expansion of Renewable Energy in electricity and heat supply and demand (June, 2022)
- The Government Platform (December, 2022)
- Agreement on hydrogen infrastructure (May, 2023)
- Additional agreement on tender framework for 6 GW offshore wind and Bornholm Energy Island (May, 2023)
- Agreement on strengthened framework conditions for CCS in Denmark (September, 2023)
- The Government's Climate Programme 2023 (September, 2023)
- Climate agreement on more green energy from solar and wind on land (December, 2023)
- Agreement on long-term framework conditions for CO_2 capture in the supply sector (February, 2024)
- Agreement on implementation of the transition support from the Green Tax Reform for industry etc. (March, 2024)
- Economic framework conditions for hydrogen infrastructure (April, 2024)
- The green tripartite "Agreement on a green Denmark" (June, 2024)
- Follow-up agreement in connection with the climate agreement on green electricity and heat 2022 and the National Audit Office's report on supervision of agreements in the supply sector (July, 2024)
- The Government's Climate Programme 2024 (September, 2024)
- Political agreement on implementation of "Agreement on a green Denmark" (November, 2024)

The most recent national status was published in September 2024 in the Government's Climate Programme 2024[25].

The sector plans and agreements deal with different aspects of the climate problem. In the energy and transport sectors, the main environmental concern has been the emissions of the greenhouse gas CO_2. The plans in these sectors were therefore to a great extent concerned with reducing CO_2.

The frameworks for the Danish energy sector is to create well-functioning energy markets within frameworks that address climate and environmental concerns and secure cost-effectiveness, security of supply, and efficient use of energy under conditions of a fully liberalised energy sector. Electricity production from Danish power plants is controlled by market forces and traded freely across national borders.

[25] https://www.kefm.dk/aktuelt/nyheder/2024/sep/fra-klimamaal-til-klimahandling-regeringen-er-klar-med-klimaprogram-2024-

The introduction of CO_2 quota regulation as a common EU instrument has therefore been of absolute importance to Denmark meeting its climate commitments. From 2005, quota regulation through the EU emissions trading scheme (EU ETS) has been the key instrument to ensuring that the Danish energy sector can contribute to the reductions requisite to fulfilling Denmark's climate commitments.

In a historic perspective, several sector plans were not primarily focused on reducing greenhouse gas emissions, in part because the sectors are battling with other major environmental problems. For example, the main concern in the agricultural sector in the 1990s was the pollution of the aquatic environment. In the waste sector focus has been on reducing the volume of waste, and in the industrial sector, reduction of emissions/discharges of harmful substances to the atmosphere/aquatic environment, the use of toxic substances, etc. has been at the center of sectorial efforts in the past.

However, the implementation of most of the sector plans has also resulted in reduction of greenhouse gas emissions. For example, the reduction in nitrogen emissions from the agricultural sector, which is the result of the aquatic environment plans, is at the same time reducing emissions of the greenhouse gas nitrous oxide. The initiatives to reduce waste quantities mean fewer landfill sites and thus less formation and emissions of methane, and the on-going increase in forested area will mean increased removals of CO_2.

In addition, the energy and transport plans meant that changes were made in the energy and transport sectors. The initiatives in the energy sector have resulted in reduced energy consumption despite significant economic growth and, with that, reduced CO_2 emissions.

On the environment policy front, Denmark has participated actively in improving environmental protection in Europe through the EU cooperation and through bilateral environmental assistance to Central and Eastern European countries. On a number of points, the EU's environmental regulation has put Europe ahead of the rest of world environmentally. There are also many examples of EU rules having helped to strengthen environmental protection in Denmark. With the adoption of the Amsterdam Treaty, sustainable development became a main objective for the EU, and integrating environmental considerations in the EU's sector policies became an obligation.

2.4.1.2 Key elements in Denmark's climate policy

In 2020, the Danish parliament adopted the Danish Climate Act. With the adoption of the Danish Climate Act, an ambitious direction was set for Danish climate policy and Denmark's climate diplomatic role in the world. Central in the Danish Climate Act are the goals of reducing Danish greenhouse gas emissions by 70 per cent in 2030 compared to the 1990 level, and reaching climate neutrality by 2050 at the latest. The Danish government pursue to advance the climate neutrality target to 2045, and set a target of 110 per cent reduction in 2050 compared to 1990 level.

After the adoption of the Climate Act, more than 75 green agreements have been concluded and over DKK 110 billion has been prioritized to the major climate agreements. This include for example, agreements on a high and more harmonized CO_2e tax for industry etc., a significant expansion of Denmark's renewable energy production and a binding reduction target for the agriculture and forestry sector, which will all contribute significantly to achieving the 70 per cent target.

The green transition takes place taking into account the guiding principles of the Climate Act. One principle is that efforts should take into account that climate challenge is a global problem. Therefore, Denmark should be a pioneering country that can inspire and influence the rest of the world. In addition, Denmark's should achieve its climate targets as cost-effective as possible with a focus on both the long-term green transition, sustainable business development and Danish competitiveness, healthy public finances and employment in support of developing Danish business life. Denmark should also be able to demonstrate that a green transition is possible while maintaining a strong welfare society and ensuring cohesion and social balance.

The government platform *Responsibility for Denmark* from December 2022 emphasizes that it is central to keep pace and ensure a thorough implementation of all of the climate measures agreed on the political level (see Box 2.4(2)). As the targets are met, the government is prepared to set new, ambitious targets.

It is particularly important for Denmark to get independent of fossil fuels as soon as possible, both in light of the need for climate action and in light of the current war in Ukraine. The importance is reinforced by the geopolitical situation and the effect on the prices of electricity and gas in Denmark.

To support implementation at all levels, the government has set up a national energy crisis team (NEKST). NEKST's task is to identify solutions to green challenges, so that the pace can be set to get the green political agreements implemented. NEKST will, among other things, ensure national

coordination of the roll-out of green heat, which aims to reduce the consumption of gas as quickly as possible and replace it with green solutions. In addition, NEKST also works to identify barriers to the agreed ambitions for scaling up solar and wind on land and recommend any measures to the government that can accelerate the expansion. NEKST acts operationally and can initiate solutions to the acute green challenges that can be solved immediately. This means that action can be taken quickly – also during NEKST's work. The government's committee for green transition follows the work of NEKST, and can continually ask NEKST new green tasks.

In addition to the significant efforts to counteract climate change, it is also necessary to secure Denmark better against more frequent floods and extreme weather events, already to be expected, unfortunately. The Danish government will therefore also draw up a national climate adaptation plan, which supports that efforts are launched in a timely manner and ensures that efforts are organized as best as possible.

In June 2022, a majority of Parties in the Danish Parliament reached a Climate Agreement on green electricity and heat, which, among other things, aims to ensure framework conditions that can enable a quadrupling of the total electricity production from solar energy and onshore wind towards 2030. In the agreement the parties also agree to enable the tendering of at minimum further 4 gigawatts (GW) of offshore wind for realization by 2030 at the latest, on the condition that the offshore wind does not negatively burden the state's finances over the project period. It is the expectation that the electricity from the offshore wind farms, among other things, can be utilised by Power-to-X (PtX) facilities in Denmark. However, the full potential is far from exhausted. The significant expansion of renewable energy can contribute green power to both direct electricity consumption in Denmark, export to the rest of Europe and green power to the production of green fuels for e.g. planes, ships and heavy transport.

On 30 May 2023, the government (Socialdemokratiet - The Social Democratic Party, Venstre - The Liberal Party of Denmark and Moderaterne – the Moderates) together with Socialistisk Folkeparti - the The Green Left, Liberal Alliance - the Liberal Alliance, Det Konservative Folkeparti - the Conservative People's Party, Enhedslisten – the The Red-Green Alliance, Radikale Venstre - the Danish Social Liberal Party, Dansk Folkeparti - the Danish People's Party and Alternativet - the Alternative signed an additional agreement on tender frameworks for 6 GW of offshore wind and Energy Island Bornholm (3 GW). While the previous agreements set high ambitions, this agreement established the concrete tender framework. The agreement enabled green electricity for up to 14 million Danish and European households or more. For the first time, a number of new access requirements are also being introduced to participate in the tenders, which should help to raise the bar for sustainability and social responsibility compared to previous tenders. The establishment of a marine nature fund will i.a. contribute to improving the knowledge about the environment and nature effects of renewable energy development on the sea and to a cost-effective restoration of marine nature and biodiversity with a view to improving the environmental state of the sea. After the political agreement, the Danish Energy Agency has held consultations with the market about the specific tender conditions. The tenders for 6 GW of offshore wind were launched in April 2024. As no bids were received for the three areas in the North Sea (3 GW) by the deadline 5 December 2024, a dialogue with the market actors has immediately been initiated.

In December 2023, the government etablished a green tripartite to elaborate recommendations and solutions for a green transformation of Danish agriculture, where, among other things, and based on the recommendations of the *Expert Group for a green tax reform,* concrete solutions for a climate tax on agriculture were discussed. In June 2024, the tripartite agreed on the *Agreement on a Green Denmark.* A politcal agreement on the implementation of the *Agreement on a Green Denmark* was reached on 18 November 2024. The agreement establishes a framework for reducing carbon emissions in the agri-food sector introducing the world's first carbon tax on agriculture, which will contribute to realising the Danish national climate target in 2030. Furthermore, efforts will be made to improve conditions within nature, biodiversity, water environment, and drinking water, including through the establishment of a Green Area Fund to support the transition. Chapter 2.4.3.7.2.10 contains further information on this initiative.

Box 2.4(2) Climate policy statements in the government platform, December 2022

"**4. Ambitious Climate Action**

The climate crisis is our generation's biggest challenge.

With this government platform, the government is setting the most ambitious climate targets for Denmark ever.

The world is heading for temperature increases that far exceed the target of the Paris Agreement, and we already feel that the climate is changing.

At the same time, we are in the middle of a nature and biodiversity crisis. Plant and animal species are dying out faster than ever, and the natural challenges are massive and global.

Despite significant efforts to counteract climate change, it is also necessary to further secure Denmark against floods and extreme weather. The government will therefore present a national climate adaptation plan, which supports that the necessary measures are implemented in a timely manner, as well as ensuring that the measures are organized as best as possible.

The government will make the necessary decisions that bring Denmark fully on target with the reduction target for 2025 and 2030. The 70 per cent target will, among other things, be achieved by realizing the agricultural and forestry sector's reduction target corresponding to that agreed in the agricultural agreement from 2021.

It is absolutely central for the government to keep up the pace and ensure a thorough implementation of the many initiatives that have been politically adopted, so that we reach our goal. As the targets are met, the government is prepared to set new, ambitious targets.

It is imperative for both Denmark and Europe to quickly get rid of fossil fuels for security policy reasons – also for the sake of the prices of electricity and heating in Danish households. It is the government's aim that as many households as possible move away from individual gas and oil boilers as quickly as possible, which will contribute to lowering the Danes' expenditure on energy in the coming winters.

In order to support implementation at all levels, the government will therefore set up a national energy crisis staff (NEKST) following the same model as the national operational staff (NOST).

NEKST will, with the involvement of relevant social actors, i.a.:

- Ensure national coordination of the rollout of district heating and other efforts aimed at reducing the consumption of natural gas as quickly as possible and replacing it with renewable energy.
- Identify barriers to the agreed ambitions for scaling up solar and wind on land as well as offshore wind and recommend to the government any measures that can accelerate the expansion.
- Support expansion of the electricity grid in places where there are already challenges with capacity today, and contribute to ensuring that the expansion is at the forefront of electricity consumption and the production of power from renewable energy.

4.1 On target with the 70 per cent target

Denmark must be a green pioneering country that sets and fulfills ambitious climate goals and climate efforts and in this way inspires other countries to follow suit. It is the coupling of action on the green transition and continued economic growth that will make other countries look to Denmark. We must show the world that it is possible to balance high climate ambitions, competitive business life and social cohesion.

The government will:

- Meet the reduction target for 2025 – and meet the reduction target for 2030.
- Ensure that the greenhouse gas reductions that have been agreed politically are realized in practice.
- If the conditions change, so that the climate projection in 2025 or later shows that the 70 per cent target is not achieved with agreed concrete measures, propose additional concrete measures which ensure that we reach the target.
- Work for ambitious and cost-effective climate and energy regulation in the EU, which can contribute to achieving the 70 per cent target and at the same time make Europe independent of Russian fossil energy.

4.2 New climate targets

With our companies, technologies and knowledge, Denmark has an opportunity and an obligation to promote green solutions in the EU and globally. The government will work for an ambitious 2040 climate target in the EU and continue the work of entering into green strategic partnerships with other countries. The government will continue the authority cooperation with countries around the world on sharing Danish experience from decades of work with green transition.

As we reach the 70 per cent target, it is natural to set new targets that can continuously ensure a high pace at the same time as we increase the focus on the implementation of already decided initiatives.

The government will move forward the goal of climate neutrality to 2045. And set a new goal of 110 per cent reduction in 2050 compared to 1990.

The government will propose an ambitious reduction target for 2035 and assess whether the reduction target in 2030 needs to be adjusted further.

The government wants to raise the ambitions for Denmark's footprint in the world by setting a target for Denmark's climate effect understood as the international climate effect that results from the Danish export of energy technology and services. A solid professional foundation for the goal must be created in cooperation with Danish businesses before it is dealt with politically.

The government will reduce the climate footprint of public procurement, including the procurement of transport and the construction of public buildings.

The government will examine the consequences of setting a target for the CO_2e footprint for Danish consumption.

4.3 Vision for future Danish food production

Denmark is one of the most intensively cultivated countries in the world. We produce enough food to feed more than twice the amount of people as we are. This is good for the world, and it helps create export income and jobs.

We must produce food products of high quality and in an innovative, sustainable and more climate-friendly way. Danish agriculture is already strong when it comes to green innovation. It is the government's ambition to continue to develop – not dismantle – the Danish food production.

In the coming years, agriculture and the food sector face an ambitious transformation in many areas. Emissions must be significantly reduced, we must better protect our drinking water, have more nature and forest and strengthen ecology as well as the plant-based production. The government notes that the sector itself has high ambitions for the green transition.

The government will present a proposal for a climate tax on agriculture when the Expert Group for a Green tax reform have presented their conclusions. The climate tax must ensure implementation of the development track and fulfillment of the binding reduction target for the agricultural and forestry sector of 55-65 per cent in 2030 compared to 1990. The government will ask the expert committee to present different scenarios to achieve this goal in line with the recommendations presented by the committee in connection with the CO_2e tax on industry. This includes consideration of prevention of the relocation of production, involvement of international experience and the possibility of imposing a CO_2e tax on final consumption as a possible means of action.

The tax must be designed in a way where the sector is supported, so that the sector's competitiveness is not impaired, and thus jobs are not moved out of the country as a whole. In this way, the implementation will be in line with what was agreed upon by a broad majority of the Danish parliament with the Climate Act from 2020: "The achievement of Denmark's climate targets must be done as cost effectively as possible, taking into account the long-term green transition, sustainable business development and Danish competitiveness, sound public finances and employment, and that Danish business must be developed and not dismantled."

The reductions must be realised with a focus on moving from development to implementation of the development tracks that have been initiated with the Agreement on Agriculture. Here a total potential for reductions of DKK 5 million tonnes of CO_2e in 2030 was pointed to from brown biorefining, manure and fertilizer management, feed additives, doubling of the ecological area and additional stop of cultivation of organic soils. This potential is on the top of the already agreed upon reductions of approximately 1.9 million tonnes of CO_2e, where the means of action have already been decided with the agreement from 2021. The government will focus on getting these measures implemented as soon as possible.

Thus, investments must be made in the green transition, the food production and its competitive abilities. Danish food production must set an example to be followed in the restructuring of other countries' agriculture, and therefore it must be ensured that production is not just moved out of the country. Hence, the proceeds from the tax must be brought back to agriculture, so that the industry's transformation is supported. The government also wants to use part of the Green Fund on further investments in technology for the green transformation of the agricultural sector.

If we are to succeed in restructuring and developing Danish agriculture, we need to see all the efforts and challenges in conjunction.

The government will therefore set up a partnership with the agricultural sector, the food sector, nature organisations, consumer organisations, and municipalities, which will present a proposal for a comprehensive vision plan for Danish agriculture.

The partnership should present its recommendations at the end of 2023, so that a comprehensive plan of vision for Danish agriculture can be drafted in the first half of 2024. An overall plan of vision must also address all targets for land use in Denmark, including for agriculture, nature, development of renewable energy, etc.

In addition to the need for agreements on new initiatives for the food sector, the government will have focus on the implementation of the Agreement on Agriculture. This includes the stop of cultivation of organic soils, which is not happening fast enough."

"4.5 More Danish forest

The government will present an ambitious forest plan with a goal of establishing 250,000 hectares of new forest in Denmark. Establishment of new forest contributes significantly to achieve climate neutrality and, in the long term, net negative emissions.

The forest plan must ensure the greatest possible synergy and balance between the many purposes with new forest, identify key operators and already existing funds as well as considering different means of action.

This will be done in parallel with the drafting of the Plan of Vision, where, among other things, the focus will be on initiating private afforestation. The Forest Plan and afforestation is financed by the Green Fund, while the aim is to have a contribution as large as possible from private operators and existing grants.

4.6 Increase the expansion of renewable energy and transition away from fossil heating

We must get rid of Russian gas faster and turbocharge the green transition with more renewable energy. The North Sea and the Baltic Sea must be green powerhouses that supply green power to the rest of Europe. Unnecessary bureaucracy and an inappropriate division of tasks must not stand in the way of rapid and efficient expansion of renewable energy.

The government will:

- Shorten the processing time for the establishment of renewable energy so that it is not put on hold due to bureaucracy. In this context, the government will look at whether more flexible models can be established for the development of offshore wind while at the same time ensuring that society receives a fair share of the income from energy extraction on land and at sea - possibly in the form of an updated concession model. The government will also promote cooperation in the North Sea and Baltic Sea regions for a faster and coordinated expansion with the necessary infrastructure to promote the green transition and offshore wind.

- Initiate an analysis of whether the current division of tasks between state authorities, regions and municipalities can be made more efficient, with a view to ensuring a high pace in the development of renewable energy on land. Here, the government will work to ensure that the state will play an active role in the planning of energy parks as a supplement to the municipal planning of renewable energy pro-jects. The development of the energy parks must be market-driven and handled by private actors.

- The government perceives the future energy system as critical infrastructure. When developing renewable energy and the Danish electricity grid, demands must therefore be made for the safest and most sustainable solutions on the market. Increased sustainability must be ensured in the tenders while observing the principles in the EU's taxonomy for environmental sustainability and the Danish climate objectives, as well as tools such as ESG and life cycle assessments. A particular challenge will be to create safe, stable and sustainable supply chains for the entire green transition from Europe and like-minded countries. The government will therefore engage wholeheartedly in the development of a new European industrial policy with this aim in mind.

- Increase the decoupling pool financed by the Green Fund, so that towards 2030 there are funds to promote Danes' decoupling from the gas grid by lifting the expenditure of approx. DKK 8,000, which the state gas distribution company Evida charges when disconnecting from the grid.

- Ensure a strong focus on energy efficiency in both private homes, businesses and public buildings.

- Initiate an expansion plan for the electricity grid and identify measures to support timely and effective investments in the electricity grid. The government will examine whether there is a need for further measures to utilize the electricity grid more efficiently, including, among other things, via a more flexible electricity consumption. This work is based on the efforts of NEKST and may result in changed grid regulation.

- Establish the partnership 'Together on climate', which will support accelerated climate action across the state, municipalities and regions, civil society and business with an emphasis on citizens.

- Increase the production of biogas so that Denmark can more quickly displace Russian natural gas. Including advancing the agreed tenders as far as possible.

4.7 A greener transport

The government wants to accelerate the development of green transport in Denmark towards 2030.

The government will:

- Look at the effects of the agreement on the green transformation of road transport with a view to making it more efficient in light of technological developments. Here, the possibilities for increasing the ambitions for the number of purely electric cars will be examined.

- Put further action behind the promotion of zero-emission trucks based on the pool for fuel infrastructure for heavy road transport from the Infrastructure Agreement in 2021. It must, for example, promote con-version of fleets and setting up charging stations.

- Introduce a passenger tax on air travel of an average of DKK 100. The generated revenue is used, among other things, on the airports and the surrounding areas, financing of the green domestic route and an increased check for the elderly.

- Make it possible to establish a green domestic route in 2025 and, by 2030 at the latest, fully green domestic flights financed by the passenger tax, as well as increasing the pace of the transformation of heavy transport as well as shipping and aviation, among other things by promoting electrification and green fuels."

4.9 The global climate effort

The government will work to ensure that the EU continues to be at the forefront of international climate agreements. Both when it comes to limiting the global climate footprint of the big emitters and rich countries - also outside their own borders - and about supporting the most vulnerable countries that suffer the greatest losses and damage as a result of global warming.

The government will present a plan for how Denmark can live up to its share of the total obligations in the global climate agreements, especially from COP15 and COP27, regarding financing for the world's poorest countries. It must be investigated how risk-averse public funds can be used as a means of leveraging more private funds.

2.4.1.3 The Danish Climate Act

The Government and Venstre (Liberal Party of Denmark, Dansk Folkeparti (Danish People's Party), Radikale Venstre (the Danish Social-Liberal Party) Socialistisk Folkeparti (Socialist People's Party), Det Konservative Folkeparti (Conservative People's Party) and Alternativet (the Alternative) concluded the Agreement on a Climate Act of 6 December 2019. The agreement is implemented in the Climate Act adopted by the Danish Parliament on 26 June 2020. The Climate Act sets a target of reducing greenhouse gas emissions in Denmark by 70% by 2030 compared to a 1990 baseline. At the same time, the Climate Act sets a long-term target for Denmark to be a climate-neutral society by 2050 at the latest.

The Climate Act targets and guiding principles

The Climate Act mandates the setting of a new national climate target every five years, with a 10-year perspective. This means that a new climate target for 2035 must be set in 2025. At the same time, the

Climate Act stipulates that a new climate target must be no less ambitious than the most recently set target. This is in alignment with the "no backsliding" principle of the Paris Agreement. The Agreement on a Climate Act also sets out that in connection with the 2020 climate action plan, the Government must propose an indicative target for 2025. In May 2021, a majority of the parties in the Danish parliament agreed on an indicative target for 2025 of 50-54% reduction compared to the 1990 level, which was formally included in the Climate Act in December 2021.

The green transition of society entails multiple dilemmas and considerations that must be evaluated and prioritised. The parties to the agreement behind the Climate Act agree that the climate effort must adhere to a number of guiding principles, see Box 2.4(3).

The Government's climate policy efforts are based on the framework and re-quirements defined by the Climate Act. In other words the work – as described in this climate programme – represents an ambitious strategy for achieving the re-duction targets in the Climate Act with due consideration of the principles that are also part of the act.

Box 2.4(3) Guiding principles for the climate effort, cf. the political agreement of 6 December 2019 on a new Danish Climate Act

The climate effort must adhere to a number of guiding principles:

1) The climate challenge is a global problem. Therefore, Denmark must be a leading nation in the international climate effort, a nation that can inspire and influence the rest of the world. Furthermore, Denmark has both a historical and a moral responsibility to take the lead.
2) The realisation of Denmark's climate targets must be as cost effective as possible, taking into account the long-term green transition, sustainable business development and Danish competitiveness, sound public finances and employment, and that Danish business must be developed rather than diminished.
3) Denmark must show that a green transition is possible while maintaining a strong welfare society, where cohesion and social balance are secured.
4) The initiatives to be taken to reduce greenhouse gas emissions must result in real domestic reductions, but it must also be ensured that Danish measures do not simply relocate all of the greenhouse gas emissions out-side of Denmark's borders.

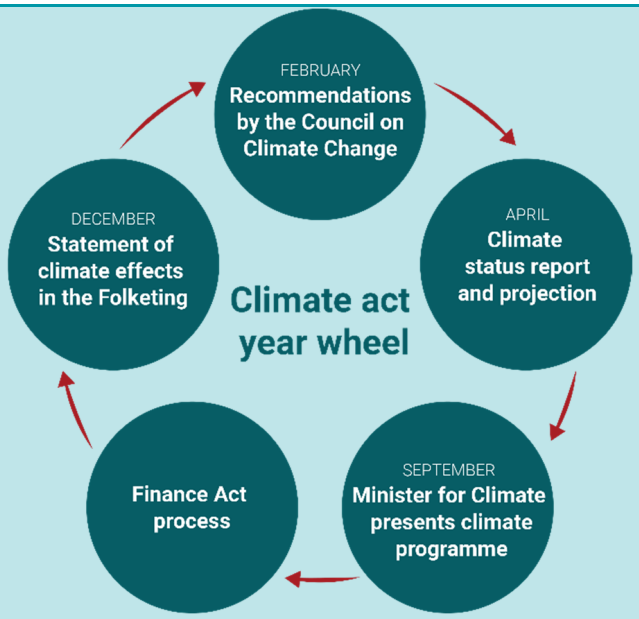
Climate action plans at least once every five years
The Climate Act requires the Government to present a climate action plan with a ten-year perspective, at least once every five years, and, as a minimum, in connection with setting the climate targets. The first *2020 Climate action plan* was published by the former government in December 2020.

The global dimension of the Climate Act
Denmark has an ambition to be a nation that inspire and influence the rest of the world. Accordingly, the Climate Act has an international perspective as well. The act stipulates that Denmark must work actively for realisation of the Paris Agreement target of limiting the global rise in temperature to 1.5 degrees Celsius. The act also requires annual status reporting in the climate programme of Denmark's international obligations and presentation of a global climate strategy and that the annual climate status and projection must contain a separate global report on the international effects of the Danish climate effort.

This includes information about reductions in international shipping and aviation and reductions from export of electricity from renewable sources, and efforts are also made to illustrate the effects of Danish import and consumption. In addition, information the Danish climate finance for developing countries must be included. The purpose of the reporting is to make Denmark's global impact on the climate visible. This will include adverse and positive impacts alike, such as from consumption and specific bilateral country partnerships, respectively, where Denmark helps the countries' energy sectors, etc., in the transition process.

The annual cycle under the Danish Climate Act (the «year wheel»)
The Climate Act gives Denmark a fixed annual cycle for Danish climate policy that obliges the incumbent Government at any time to work to meet the Climate Act targets. The elements in the annual cycle are illustrated and explored in box 2.4(4). According to the annual cycle, the Danish Council on Climate Change must advise the Government on the climate action.

Box 2.4(4) The annual cycle under the Danish Climate Act



Annual recommendations from the Danish Council on Climate Change
The Council on Climate Change will advise the Government on climate efforts. The Climate Act strengthens this role by requiring the Council to annually assess the Government's climate efforts and make recommendations on the action going forward. In each year's climate programme, the Minister for Climate, Energy and Utilities must report on these recommendations and state the Minister's position on the recommendations. The Council on Climate Change must also assess whether the Government's climate efforts make it probable that the climate targets will be reached.

Climate status and projection
The Minister for Climate, Energy and Utilities presents each year a projection of the Danish greenhouse gas emissions. The climate status and projection provide an overall report on the expected emissions after incorporating the measures decided in the past year and any new knowledge in the form of technological developments, framework conditions or new knowledge of the impact of activities on greenhouse gas emissions. The annual climate status and projection will include a separate global reporting on the international effects of the Danish climate effort.

Climate programme
The Climate Act requires the Minister for Climate, Energy and Utilities to annually present a climate programme to the Danish Parliament, see below on the annual climate programme.

Finance Act process
The climate programme will be presented to the Danish Parliament in September to enable it to be taken into consideration during Finance Act deliberations.

Report to the Danish Parliament
After the annual Finance Act agreement, the Minister for Climate, Energy and Utilities must present a report on the effects of the Government's climate policy and, in this connection, answer questions at an interpellation debate in the Danish Parliament. This enables the Parliament to annually assess whether the Government's initiatives are sufficient for the Parliament to assess that the obligation to act is fulfilled, see below on the annual climate programme.

Climate programme and duty to take action
The Climate Act requires the Minister for Climate, Energy and Utilities to prepare a climate programme for the Danish Parliament each year. In September 2020, the first - *Climate Programme 2020* - was published by the former government and was thus written before the Climate Act year wheel had turned a full year.
The act makes requirements on the content of the programme to support regular follow-up on the aggregate climate effort in the period until the next sub-target. For instance, the climate programme provides a status report on the fulfilment of Denmark's climate targets and commitments and presents the Government's planned climate initiatives. The climate programme also has a global chapter that sets out the Government's long-term strategy for global climate action with specific initiatives to be launched in the coming year. Box 2.4(5) illustrates the Climate Act requirements for the contents of the climate programme.

In addition to these requirements of the climate programme, the Minister for Climate, Energy and Utilities must, in the climate programme, provide an assessment of whether it appears probable that the national climate targets will be reached cf. Box 2.4(6).

Box 2.4(5) The Climate Act's requirements on the content of the climate programme

The climate programme must include the following:

1) A status report on fulfilment of the national climate targets
2) The planned climate initiatives and measures, including short- and long-term effect and the projected future effect thereof
3) A report on The Council on Climate Change's recommendations and the position of the Minister for Climate, Energy and Utilities on these recommendations
4) A status report on research and development of new climate initiatives
5) A status report on developments in climate science, including the latest IPCC reports
6) A description and status report on fulfilment of international climate targets
7) A global climate strategy

Box 2.4(6) The Climate Act on duty to take action

The Act features the following elements:

- In the climate programme, the Minister for Climate, Energy and Utilities must provide her/his assessment of whether it appears probable that the national climate targets mentioned in Article 1 will be reached.
- If it cannot be deemed probable that the national climate targets will be reached, in the climate programme the Minister for Climate, Energy and Utilities must present new initiatives with a reduction effect in the shorter term and initiatives with a reduction effect in the longer term, which together chart a path toward fulfilment of the national climate targets.

2.4.1.4 Denmark's climate policy and the EU climate policy

Danish climate policy is based on two pillars – the European and the national.

The EU framework and climate target

The EU determins a large part of the framework conditions, in the form of e.g. objectives, requirements and quota trading system under which the Danish climate effort operates. Common climate regulation in the EU can be to the advantage of Denmark, as it creates more uniform conditions of competition and export opportunities for Danish companies.

The EU has an overall climate target to lower total CO_2e emissions by at least 55 per cent in 2030 compared to the 1990 level. As a follow-up to the EU's 2030 climate goals, the EU Commission presented the so-called *Fit for 55* legislative package in July 2021, which has since been supplemented with additional EU proposals in December 2021 (the so-called "Winter package"). In October 2023, the European Commission announced that it has adopted two final pillars of the "Fit for 55" legislative package. The *Fit for 55* package has included a historically broad revision of the EU's climate and energy regulation, as well as new regulation within, among other things, transportation.

Fit for the 55 package's importance for Danish fulfillment of the 70 per cent target

The Fit for 55 package is expected to contribute to Denmark's fulfillment of the domestic 70 per cent target, and the proposals in the package are considered to involve significant greenhouse gas reductions. At the same time, there are also proposals that can have significant economical consequences for the state, businesses and households.

A strengthened and expanded ETS will contribute to realizing Denmark's reduction obligations both under the burden-sharing regulation and the domestic 70 per cent target. By sending a price signal, it also supplements existing sector regulation such as CO_2 displacement requirements in the Renewable Energy Directive, the Building Directive and the Energy Efficiency Directive and thus contributes to increased reduction efforts.

2.4.2 Legislative arrangements and enforcement and administrative procedures

The legal basis for the division of powers into the legislative, executive, and judicial power is the Danish Constitution, *Danmarks Riges Grundlov*[26].

The Constitution includes the legal basis for how the Regent acts on behalf of the Realm in international affairs, and the Regent cannot act without the consent of the Folketing in any way that increases or restricts the area of the Realm, or enter into obligations requiring cooperation of the Folketing or which in some other way are of great significance to the Realm. Neither can the Regent, without the consent of the Folketing, cancel an international agreement entered into with the consent of the Folketing.

After a motion from the government, the Folketing thus gave its consent in 2016[27], allowing the Realm and with a territorial exclusion in respect of Greenland, to approve the Paris Agreement. This was on 1 November 2016[28]. On 2 July 2024, the Realm notified the Secretary-General that it had decided to withdraw the declaration, made upon approval, regarding the territorial exclusion in respect of Greenland[29].

Denmark's implementation of the Paris Agreement and the EU legislation adopted for the implementation of the EU NDC 2021-2030 is effectuated by following up on the Danish Climate Act, sector-policy strategies with climate considerations, and concrete initiatives contributing to limiting or reducing greenhouse gas emissions, and implementation of the other parts of the Paris Agreement. The legislation necessary to do this has been adopted in pursuance of the Constitution regulations concerning legislative powers.

Pursuant to the Constitution, the Regent is the ultimate authority, cf. paragraphs 12-14:

> *"**12.** Subject to the limitations laid down in this Constitutional Act, the King shall have supreme authority in all the affairs of the Realm, and shall exercise such supreme authority through the Ministers.*
>
> ***13.** The King shall not be answerable for his actions; his person shall be sacrosanct. The Ministers shall be responsible for the conduct of government; their responsibility shall be defined by statute.*
>
> ***14.** The King shall appoint and dismiss the Prime Minister and the other Ministers. He shall decide upon the number of Ministers and upon the distribution of the duties of government among them. The signature of the King to resolutions relating to legislation and government shall make such resolutions valid, provided that the signature of the King is accompanied by the signature or signatures of one or more Ministers. A Minister who has signed a resolution shall be responsible for the resolution."*

With this background, the Regent delegates responsibility for various functions to government ministers through Royal resolutions. This makes the various ministers for different areas responsible for, e.g. making proposals for new/amended legislation made necessary by the Paris Agreement and EU legislation for the implementation of the EU NDC, enforcement of legislation and initiation of necessary administrative procedures.

The total set of regulations (in Danish) can be accessed via Retsinformation[30] (online legal information system). Legislation concerning measures of importance to Denmark's commitments under the Paris Agreement and EU legislation for the implementation of the EU NDC will be enforced pursuant to the current legal basis, including pursuant to any penalty clause. Enforcement could also involve the judicial power.

In accordance with the Act on Greenland Self-Government from 2009, climate policy in Greenland falls within the jurisdiction of the Government of Greenland.

In accordance with the Home Rule Act of the Faroe Islands from 1948 and the 2005 expansion of fields of responsibilities, climate policy in the Faroe Islands falls within the jurisdiction of the Government of the Faore Islands.

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[26] The Danish Constitution (Danmarks Riges Grundlov) (http://www.retsinfo.dk/_GETDOCI_/ACCN/A19530016930-REGL /: http://www.folketinget.dk/pdf/constitution.pdf)
[27] https://www.retsinformation.dk/eli/ft/20161CB00002
[28] https://treaties.un.org/doc/Publication/CN/2016/CN.819.2016-Eng.pdf
[29] https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en#1
[30] http://www.retsinfo.dk/

2.4.3 Policies and measures and their effects

In this section, the individual measures relevant to Denmark's climate policy are described. An overview of Denmark's portfolio of existing (implemented or adopted) climate relevant policies and measures is contained in Annex B1, where it is also indicated which of the meaures are new and which have expired or been updated etc.

Sections 2.4.3.1-2.4.3.4 include descriptions of the cross-sectoral policies and measures, allowance regulation, taxes and duties and carbon capture and storage. Sections 2.4.3.5-2.4.3.9 contain descriptions of policies and measures in the following IPCC source/sink and sector categories: Energy (including Transport), Industrial Processes and Product Use, Agriculture, LULUCF (Land-use, Land-use change and Forestry) and Waste.

Table 2.4(1) shows how the allocation to be used in connection with the annual emission inventories (the CRF/IPCC format) is aggregated into the sectors included in this Chapter on policies and measures.

Table 2.4(1) Aggregation of source, sink and sector categories in the CRF/IPCC format into the sectors included in this chapter

Sectors in this chapter and Chapter 5	Sources/Sectors in the CRF/IPCC format	
Energy - with subsections on:	1.	Fuel combustion activities (1A) and Fugitive emissions from fuels (1B)
Business	1A2+ 1A4a+ 1A4c.	Manufacturing Industries and Construction Commercial/Institutional Agriculture, Forestry and Fisheries
Households	1A4b	Residential
Transport	1A3.	Transport (national)
Industrial Processes and Product Use	2.	Industrial processes and Product Use
Agriculture	3.	Agriculture
LULUCF	4.	Land-use, Land-use Changes and Forestry (LULUCF).
Waste	5.	Waste

Table 2.4(2) and Figure 2.4(1) show the main result of this aggregation, including indirect CO_2 emissions, for the historic greenhouse gas inventories in 1990, 2022 as well as the 2024 projections of annual emissions in 2025, 2030, 2035 and 2040 in the "with existing measures" (WEM) scenario[31] – with and without emissions and removals in connection with land use, land-use change and forestry (LULUCF).

In accordance with the reporting guidelines, the following sector sections in this chapter are subdivided by gas.

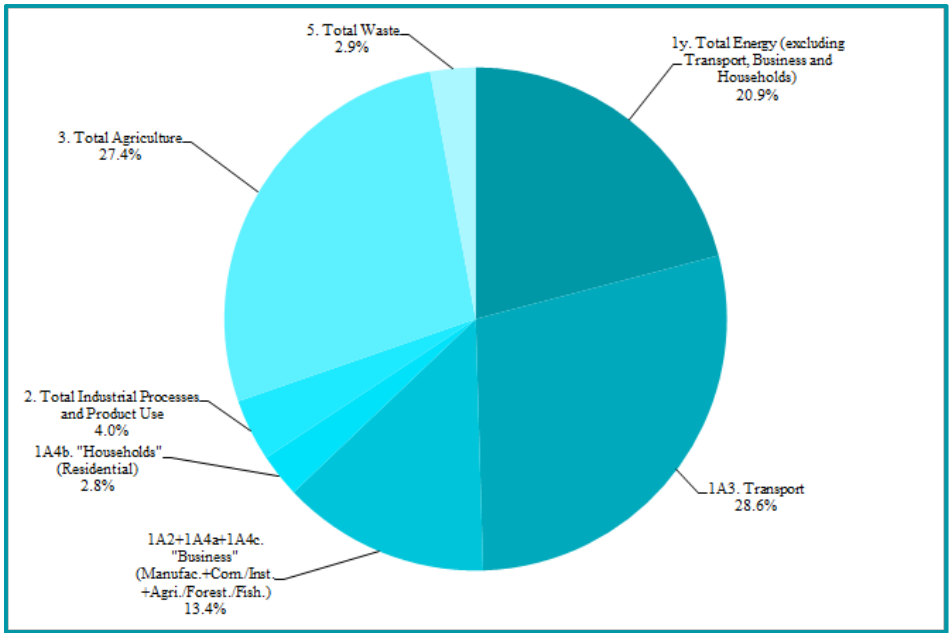
[31] Climate Status and Outlook 2024 (*CSO24): Klimastatus og –fremskrivning 2024*, Ministry of Climate, Energy and Utilities, April 2024 (draft) / July 2024 (final) (https://www.kefm.dk/klima/klimastatus-og-fremskrivning)

Table 2.4(2) Denmark's greenhouse gas emissions 1990-2022 and the main results of the 2024 "with (existing) measures" (WEM) projection for 2025, 2030, 2035 and 2040 by sector and by gas (including indirect CO_2), with and without LULUCF as reported under the UNFCCC

Source: Nielsen et al. (2024a), Nielsen et al. (2024b) and Ministry of Climate, Energy and Utilities

GHG emissions (1990-2022) [15 March 2024 submission to the EU, AR5 GWPs] and projections (2023-2040) [WEM24 (Draft KF24), AR5 GWPs]	1990 MtCO2e	*1990 % share for / in sector*	2022 MtCO2e	*2022 % share for / in sector*	Change from 1990 (%)	2025 MtCO2e	*2025 % share for / in sector*	Change from 1990 (%)	2030 MtCO2e	*2030 % share for / in sector*	Change from 1990 (%)	2035 MtCO2e	*2035 % share for / in sector*	Change from 1990 (%)	2040 MtCO2e	*2040 % share for / in sector*	Change from 1990 (%)
Total (including LULUCF, with indirect CO_2)	**78.3**	***100.0***	**41.7**	***100.0***	**-46.8**	**36.0**	***100.0***	**-54.1**	**26.6**	***100.0***	**-66.1**	**21.7**	***100.0***	**-72.3**	**21.7**	***100.0***	**-72.3**
CO_2 (with indirect CO_2)	61.0	*77.8*	27.9	*67.0*	-54.2	22.3	*62.1*	-63.3	13.2	*49.5*	-78.4	8.7	*39.8*	-85.8	8.7	*39.8*	-85.8
Methane	9.5	*12.1*	8.8	*21.0*	-7.8	8.8	*24.5*	-7.1	9.0	*33.7*	-5.7	8.8	*40.5*	-7.4	8.8	*40.5*	-7.4
Nitrous oxide	7.8	*10.0*	4.7	*11.3*	-39.9	4.5	*12.5*	-42.5	4.2	*15.9*	-46.2	4.1	*19.0*	-47.3	4.1	*19.0*	-47.3
Industrial gases	0.0	*0.0*	0.3	*0.7*	603.8	0.3	*0.8*	669.0	0.2	*0.8*	464.0	0.1	*0.6*	258.9	0.1	*0.6*	258.9
Total (without LULUCF, with indirect CO_2)	**71.6**	***91.5***	**42.1**	***100.9***	**-41.3**	**35.3**	***98.1***	**-50.7**	**25.9**	***97.4***	**-63.9**	**22.3**	***102.9***	**-68.8**	**22.3**	***102.9***	**-68.8**
CO_2 (with indirect CO_2)	54.6	*69.7*	28.7	*68.8*	-47.5	22.0	*61.2*	-59.7	13.0	*49.0*	-76.2	9.9	*45.4*	-81.9	9.9	*45.4*	-81.9
Methane	9.2	*11.8*	8.5	*20.3*	-8.2	8.5	*23.6*	-7.7	8.5	*31.8*	-8.2	8.3	*38.0*	-10.4	8.3	*38.0*	-10.4
Nitrous oxide	7.8	*9.9*	4.7	*11.2*	-39.9	4.5	*12.4*	-42.5	4.2	*15.7*	-46.2	4.1	*18.8*	-47.5	4.1	*18.8*	-47.5
Industrial gases	0.0	*0.0*	0.3	*0.7*	603.8	0.3	*0.8*	669.0	0.2	*0.8*	464.0	0.1	*0.6*	258.9	0.1	*0.6*	258.9
1. Total Energy (with indirect CO_2)	**53.7**	***68.6***	**27.6**	***66.3***	**-48.6**	**21.1**	***58.5***	**-60.8**	**12.1**	***45.7***	**-77.4**	**8.9**	***40.8***	**-83.5**	**8.9**	***40.8***	**-83.5**
CO_2 (with all indirect CO_2 here in historic data)	52.8	*98.3*	27.0	*97.7*	-48.9	20.5	*97.4*	-61.1	11.7	*96.5*	-77.8	8.5	*96.2*	-83.9	8.5	*96.2*	-83.9
Methane	0.6	*1.2*	0.4	*1.3*	-44.8	0.3	*1.5*	-49.9	0.3	*2.1*	-60.9	0.2	*2.1*	-70.3	0.2	*2.1*	-70.3
Nitrous oxide	0.3	*0.5*	0.3	*1.0*	6.4	0.2	*1.0*	-18.4	0.2	*1.4*	-37.0	0.2	*1.7*	-44.4	0.2	*1.7*	-44.4
2. Total Industrial Processes and Product Use	**2.1**	***2.7***	**1.7**	***4.0***	**-20.8**	**1.6**	***4.4***	**-25.4**	**1.3**	***4.9***	**-38.2**	**1.3**	***5.8***	**-40.5**	**1.3**	***5.8***	**-40.5**
CO_2	1.2	*55.2*	1.4	*82.4*	18.1	1.3	*79.7*	7.7	1.1	*81.7*	-8.6	1.1	*87.3*	-6.0	1.1	*87.3*	-6.0
Methane	0.0	*0.1*	0.0	*0.2*	2.2	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0
Nitrous oxide	0.9	*42.8*	0.0	*1.1*	-98.0	0.0	*1.3*	-97.8	0.0	*1.5*	-97.8	0.0	*1.6*	-97.8	0.0	*1.6*	-97.8
Industrial gases	0.0	*1.8*	0.3	*16.4*	603.8	0.3	*19.0*	669.0	0.2	*16.8*	464.0	0.1	*11.1*	258.9	0.1	*11.1*	258.9
3. Total Agriculture	**13.8**	***17.7***	**11.5**	***27.7***	**-16.7**	**10.7**	***29.7***	**-22.8**	**10.0**	***37.7***	**-27.7**	**9.7**	***44.8***	**-29.7**	**9.7**	***44.8***	**-29.7**
CO_2	0.6	*4.4*	0.3	*2.3*	-56.3	0.2	*2.2*	-62.5	0.2	*2.3*	-62.5	0.2	*2.4*	-62.5	0.2	*2.4*	-62.5
Methane	6.9	*50.2*	7.1	*61.3*	1.8	6.4	*59.9*	-7.7	6.0	*59.6*	-14.1	5.8	*59.3*	-17.0	5.8	*59.3*	-17.0
Nitrous oxide	6.3	*45.4*	4.2	*36.4*	-33.2	4.1	*37.9*	-35.5	3.8	*38.1*	-39.3	3.7	*38.4*	-40.6	3.7	*38.4*	-40.6
4. Total Land-Use Categories (LULUCF)	**6.7**	***8.5***	**-0.4**	***-0.9***	**-105.7**	**0.7**	***1.9***	**-89.7**	**0.7**	***2.6***	**-89.8**	**-0.6**	***-2.9***	**-109.3**	**-0.6**	***-2.9***	**-109.3**
CO_2 (for KP2 BY only GHG emissions from deforestation)	6.3	*94.6*	-0.7	*191.8*	-111.5	0.3	*46.4*	-94.9	0.1	*19.1*	-97.9	-1.2	*196.8*	-119.3	-1.2	*196.8*	-119.3
Methane	0.3	*4.4*	0.3	*-81.7*	5.7	0.3	*47.8*	12.0	0.5	*75.0*	73.1	0.6	*-88.7*	86.7	0.6	*-88.7*	86.7
Nitrous oxide	0.1	*1.0*	0.0	*-10.1*	-42.8	0.0	*5.8*	-40.6	0.0	*5.9*	-40.6	0.1	*-8.1*	-25.7	0.1	*-8.1*	-25.7
5. Total Waste	**2.0**	***2.5***	**1.2**	***2.9***	**-37.6**	**2.0**	***5.5***	**0.5**	**2.4**	***9.2***	**24.0**	**2.5**	***11.5***	**27.0**	**2.5**	***11.5***	**27.0**
CO_2	0.0	*0.8*	0.0	*1.2*	-9.8	0.0	*0.5*	-39.3	0.0	*0.4*	-39.3	0.0	*0.4*	-39.3	0.0	*0.4*	-39.3
Methane	1.6	*83.1*	0.9	*74.1*	-44.4	1.7	*87.3*	5.5	2.2	*92.2*	37.5	2.3	*92.4*	41.1	2.3	*92.4*	41.1
Nitrous oxide	0.3	*16.0*	0.2	*14.1*	-45.3	0.2	*9.1*	-42.7	0.2	*7.4*	-42.7	0.2	*7.2*	-42.7	0.2	*7.2*	-42.7
1x. Total Energy (excluding Transport)	**43.0**	***54.9***	**15.6**	***37.4***	**-63.7**	**10.9**	***30.3***	**-74.6**	**4.1**	***15.6***	**-90.4**	**3.2**	***14.8***	**-92.5**	**3.2**	***14.8***	**-92.5**
CO_2 (with all indirect CO_2 here in historic data)	42.3	*98.3*	15.1	*96.7*	-64.3	10.4	*95.7*	-75.3	3.8	*91.0*	-91.1	2.9	*90.7*	-93.1	2.9	*90.7*	-93.1
Methane	0.6	*1.3*	0.3	*2.2*	-37.5	0.3	*2.9*	-41.9	0.3	*6.1*	-54.6	0.2	*5.9*	-65.5	0.2	*5.9*	-65.5
Nitrous oxide	0.2	*0.4*	0.2	*1.1*	-7.0	0.2	*1.4*	-17.8	0.1	*2.9*	-34.2	0.1	*3.4*	-39.7	0.1	*3.4*	-39.7
1A3 Transport	**10.7**	***13.7***	**12.0**	***28.9***	**12.0**	**10.2**	***28.2***	**-5.5**	**8.0**	***30.1***	**-25.5**	**5.7**	***26.0***	**-47.4**	**5.7**	***26.0***	**-47.4**
CO_2	10.6	*98.4*	11.9	*98.95*	12.7	10.1	*99.3*	-4.6	8.0	*99.4*	-24.7	5.6	*99.3*	-46.9	5.6	*99.3*	-46.9
Methane	0.1	*0.8*	0.0	*0.07*	-90.3	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0	0.0	*0.0*	-100.0
Nitrous oxide	0.1	*0.8*	0.1	*0.97*	34.4	0.1	*0.7*	-19.7	0.1	*0.6*	-42.6	0.0	*0.7*	-54.1	0.0	*0.7*	-54.1
1y. Total Energy (excluding Transport, Business and Households)	**28.2**	***36.1***	**8.8**	***21.1***	**-68.8**	**5.8**	***16.1***	**-79.5**	**1.4**	***5.3***	**-95.0**	**0.9**	***4.2***	**-96.8**	**0.9**	***4.2***	**-96.8**
CO_2 (with all indirect CO_2 here in historic data)	27.8	*98.5*	8.5	*96.8*	-69.4	5.5	*94.8*	-80.3	1.2	*84.3*	-95.8	0.8	*82.4*	-97.3	0.8	*82.4*	-97.3
Methane	0.3	*1.2*	0.2	*2.4*	-40.4	0.2	*4.0*	-34.0	0.2	*12.9*	-48.3	0.1	*13.2*	-65.6	0.1	*13.2*	-65.6
Nitrous oxide	0.1	*0.3*	0.1	*0.8*	-9.8	0.1	*1.2*	-9.8	0.0	*2.9*	-48.5	0.0	*4.4*	-48.5	0.0	*4.4*	-48.5
1A2+1A4a+1A4c: "Business" (Manufac.+Com./Inst.+Agri./Forest./Fish.)	**9.6**	***12.2***	**5.6**	***13.5***	**-41.2**	**4.3**	***12.0***	**-54.9**	**2.5**	***9.4***	**-73.9**	**2.2**	***9.9***	**-77.5**	**2.2**	***9.9***	**-77.5**
CO_2	9.4	*98.7*	5.5	*97.9*	-41.7	4.2	*98.1*	-55.2	2.4	*96.8*	-74.4	2.1	*96.3*	-78.1	2.1	*96.3*	-78.1
Methane	0.1	*0.5*	0.1	*1.0*	9.9	0.0	*0.7*	-40.1	0.0	*1.2*	-40.1	0.0	*1.4*	-40.1	0.0	*1.4*	-40.1
Nitrous oxide	0.1	*0.8*	0.1	*1.2*	-15.6	0.1	*1.2*	-34.8	0.1	*2.0*	-34.8	0.1	*2.3*	-34.8	0.1	*2.3*	-34.8
1A4b: "Households" (Residential)	**5.2**	***6.6***	**1.2**	***2.8***	**-77.3**	**0.8**	***2.3***	**-84.2**	**0.2**	***0.9***	**-95.6**	**0.2**	***0.7***	**-96.9**	**0.2**	***0.7***	**-96.9**
CO_2	5.0	*96.5*	1.1	*90.1*	-78.8	0.7	*89.0*	-85.4	0.2	*69.6*	-96.8	0.1	*62.5*	-98.0	0.1	*62.5*	-98.0
Methane	0.2	*2.9*	0.1	*6.9*	-46.6	0.1	*7.3*	-60.5	0.0	*17.4*	-73.7	0.0	*25.0*	-73.7	0.0	*25.0*	-73.7
Nitrous oxide	0.0	*0.5*	0.0	*3.0*	24.2	0.0	*3.7*	6.6	0.0	*13.0*	6.6	0.0	*12.5*	-29.0	0.0	*12.5*	-29.0

Figure 2.4(1) Denmark's greenhouse gas emissions in 2022 by sector
Source: Nielsen et al. (2024a) and the Danish Ministry of Climate, Energy and Utilities



Separate estimate of the effect of the 2018 Energy Agreement
In this report the effects of the policies and measures *adopted* with the 2018 Energy Agreement is included in the "With Existing Measures" (WEM) greenhouse gas projection scenario from 2022.

In 2018, it was estimated that the *2018 Energy Agreement* alone will provide a 10-11 million tonnes reduction in Denmark's total greenhouse gas emissions by 2030. The majority of these reductions will be within sectors covered by the EU's Emissions Trading System (EU ETS) as approximately 0.15-0.25 million tonnes CO_2 is estimated to be the reduction in 2030 outside of the EU ETS (non-ETS). Accumulated over the non-ETS reduction commitment period 2021-2030 the energy agreement's initiatives are expected to reduce carbon emissions from the non-ETS sectors by approximately 1.1 to 1.5 million tonnes CO_2 in the period 2021-2030. The largest contributions come from new energy saving subsidies and the reduced electricity heating tax which makes it more attractive to switch to heat pumps. With these and other initiatives, the *2018 Energy Agreement* will help Denmark reach its 50% greenhouse gas emissions reduction target by 2030 in the non-ETS sectors.

Separate estimates of the effects of political agreements since December 2019
The separate estimates of the effects of political agreements reached since December 2019, included in the *Climate Progamme 2024*, published in September 2024, are included in Table 2.4(3).

Table 2.4(3) Estimated greenhouse gas emission reduction effects of agreements with a reduction effect since the agreement on the Danish Climate Act (December 2019) and the reduction shortfalls in achieving the domestic reduction targets for 2025 and 2030 in the Danish Climate Act, in Million Tonnes of CO_2 equivalents.

Agreements with a reduction effect since the agreement on the Danish Climate Act							
The agreements and the annual WEM projections DECO: Denmark's Energy and Climate Outlook CSO : Climate Status and Outlook	**Total greenhouse gas emissions** *(Million tonnes CO_2e)*			**Reduction from 1990** *(pct., rounded)*		**Reduction shortfalls in achieving the domestic tagets for 2025 and 2030** *(Million tonnes CO_2e)*	
	1990	**2025**	**2030**	**2025**	**2030**	**2025**	**2030**
Estimates when the Agreement on a new Climate Act was agreed (6 December 2019)*	**75.2**	**43.5**	**41.0**	**42**	**45**	**5.9-8.9**	**18.4**
Changes to DECO20	*+2.0*	*+2.1*	*+2.1*				
The 2020 projection (DECO20, WEM scenario)	**77.2**	**45.7**	**43.1**	**41**	**44**	**7-10.1**	**19.9**
The green housing agreement 2020 (19 May 2020)		*-0.0*	*-0.1*				
The climate plan for a green waste sector and circular economy (16 June 2020)		*0*	*-0.7*				
The climate agreement for energy and industry etc. 2020 (22 June 2020)		*-1.3*	*-2.7*				
The agreement on the future of oil and gas extraction in the North Sea (3 December 2020)		*0*	*-0.0*				
The agreement on green transformation of road transport (excluding kilometer-based road tax for trucks) (December 4, 2020)		*-0,9*	*-1.9*				
The agreement on the Finance Act for 2021 and the agreement on stimuli and green recovery (6 December 2020)		*-0.2*	*-0.2*				
The agreement on a green tax reform (8 December 2020)		*-0.5*	*-0.5*				
Other changes from DECO20 to CSO21	*+0,1*	*-1.8*	*-2.0*				
The 2021 projection (CSO21, WEM scenario)	**77.4**	**40.8**	**35.0**	**47**	**55**	**2.1-5.2**	**11.8**
The agreement on the green transformation of agriculture (October 4, 2021)		*-1.2*	*-1.9*				
The sub-agreement on investments in a continuously greener Denmark 2022 (December 4, 2021) and the agreement on the Finance Act for 2022 (December 6, 2021)		*-0.5*	*-0.5*				
Other changes from CSO21 to CSO22	*+0.6*	*+2.3*	*+0.9*				
The 2022 projection (CSO22, WEM scenario)	**78.0**	**41.4**	**33.6**	**47**	**57**	**2.4-5.5**	**10.1**
The agreement on green tax reform for industry etc. (June 24, 2022)		*-1.3*	*-4.3*				
The agreement on kilometer-based road tax for trucks (24 June 2022) and the agreement on kilometer-based road tax for trucks (29 March 2023)		*-0.3*	*-0.4*				
The climate agreement on green electricity and heat 2022 (25 June 2022)		*-0.4*	*-0.4*				
Other changes from CSO22 to the draft CSO23	*+0.4*	*+0.3*	*+0.5*				
The 2023 projection (CSO23, WEM scenario, Final, November 2023)	**78.4**	**39.7**	**28.9**	**49**	**63**	**0.5-3.7**	**5.4**
The estimated partial effect of the implementation of the new EU ETS		*-0.0*	*-0.4*				
Agreement on green aviation in Denmark (15 December 2023)		*-0.0*	*-0.1*				
Other changes from CSO23 to CSO24	*-0.1*	*-4.4*	*-3.1*				
The 2024 projection (CSO24, WEM scenario, Final, July 2024)	**78.3**	**35.3**	**25.4**	**55**	**68**	**Achieved**	**1.9**
The estimated partial effect of the transition support from Agreement on implementation of the transition support from Green tax reform for industry etc. (19 March 2024)		*-0.1*	*-0.1*				
The estimated partial effect of changes in diesel and road tax from the Agreement on partial implementation of the Green Fund (April 2024)		*-0.3*	*-0.3*				
CSO24 including the estimated partial effects mentioned above		**34.8**	**25.0**	**56**	**68**	**Achieved**	**1.5**
*Agreement on a Green Denmark (24 June 2024)***			*-1.8*				
Estimate with the effects of the *Agreement on a Green Denmark*		**34.8**	**23.2**	**56**	**70**	**Achieved**	**Achieved**

Comment: The effects shown are rounded. Therefore the sum of the effects can deviate from the totals shown and calculated before any rounding.
Notes:
* Based on DECO19 and adjusted to take into account the effect of the agreement on the Finance Act for 2020 (of 2 December 2019).
** A prerequisite for the inclusion of the effects of Support for using methane reducing feeding additives and of the Fund for supporting negative emissions from biochar in the GHG inventories and in the GHG projections is that the ongoing research projects provides the necessary documentation of the effects. This is expected to be the case when CSO25 and CSO27 respectively is elaborated.
Source: Ministry of Climate, Energy and Utilities
Climate programme 2023 (September 2023: https://kefm.dk/Media/638315764817167867/Klimaprogram%202023.pdf);
Annual statement of climate effects 2023 (December 2023: https://www.kefm.dk/Media/638435855892254929/Redeg%C3%B8relse%20om%20klimaeffekter%202023.pdf);
Climate Status and Outlook 2024 (July 2024: https://www.kefm.dk/klima/klimastatus-og-fremskrivning) and the estimated partial effects therein - of the transition support from Agreement on implementation of the transition support from Green tax reform for industry etc. (March 2024) and of the partial effect of changes in diesel and road tax from the Agreement on partial implementation of the Green Fund (April 2024).
Climate programme 2024 (September 2024: https://www.kefm.dk/Media/638632332369380008/Klimaprogram%202024%20-%20Digital.pdf)

2.4.3.1 Cross-cutting – The EU Emission Trading Scheme

EU ETS 2021-2030

The legislative framework of the EU ETS for the trading period 2021-2030 (phase 4) was revised in early 2018 to enable it to achieve the EU's 2030 emission reduction targets in line with the 2030 climate and energy policy framework and as part of the EU's contribution to the 2015 Paris Agreement. The revision focuses on:

- Strengthening the EU ETS as an investment driver by increasing the pace of annual reductions in allowances to 2.2% as of 2021 and reinforcing the Market Stability Reserve (the mechanism established by the EU in 2015 to reduce the surplus of emission allowances in the carbon market and to improve the EU ETS's resilience to future shocks).
- A severe reduction in the number of sectors deemed at significant risk of carbon leakage but otherwise continuing the free allocation of allowances as a safeguard for the international competitiveness of industrial sectors at significant risk of carbon leakage, while ensuring that the rules for determining free allocation are focused and reflect technological progress including updated benchmarks based on actual data from covered entities.
- Helping industry and the power sector to meet the innovation and investment challenges of the low-carbon transition via several low-carbon funding mechanisms.

The Fit for 55 package endorsed on 8 February 2023 by the Permanent Representatives Committee proposes to revise several pieces of EU climate legislation, including the EU ETS, setting out in real terms the ways in which the Commission intends to reach EU climate targets under the European Green Deal. The revised EU ETS Directive, adopted 5 June 2023 and applied from 1 January 2024, will enable this through a mix of interlinked measures eg. a mayor revision of EU ETS as well as inclusion of ETS Maritime and ETS Transport, Building and Industries.

The revision focuses on:

- Strengthening the EU ETS further as an investment driver by increasing the pace of annual reductions in allowances. The linear factor shall be 4,3 % from 2024 to 2027 and 4,4 % from 2028;
- Free allowances in the Emissions Trading System (ETS) to be phased out from 2026;
- Free allocation to the aviation sector to be phased out by 2026 and non-CO_2 emissions included by 2025;
- Maritime sector included by 2024, no free allocation and increasing surrendering obligation to 100% by 2026;
- Road transport and buildings in new ETS II from 2027, monitoring from 2025;
- New carbon leakage instrument to protect EU industry at significant risk of carbon leakage (CBAM) and increase global climate ambition;
- A Social Climate Fund to combat energy and mobility poverty;
- A Recovery and Resilience Facility referring to policy areas of the European Union relevance structured in six pillars:
    - Green transition;
    - Digital transformation;
    - Smart, sustainable and inclusive growth, including economic cohesion, jobs, productivity, competitiveness, research, development and innovation, and a well-functioning internal market with strong SMEs;
    - Social and territorial cohesion;
    - Health, and economic, social and institutional resilience, with the aim of, inter alia, increasing crisis preparedness and crisis response capacity; and
    - Policies for the next generation, children and the youth, such as education and skills;
- Increased amount of allowances allocated to the Innovation Fund; and
- Non-CO_2 effect of aviation monitored from 2025.

Denmark's national allowance registry
Denmark's national allowance registry – (DK ETR – Emission Trading Registry[32]) has been operating since 1 January 2005. The DK ETR is used to allocate allowances to production facilities subject to allowances and enables trade in allowances among the allowance holders found in the registry. Since the 1st of July 2012 the DK ETR has been a part of the EU ETS that host the emission trading registry for all of the member states in the EU. The DK ETR is constructed so it also fulfils the Kyoto requirements.

2.4.3.2 Cross-cutting – The Paris Agreement mechanisms

Denmark has not yet decided if the use of the mechanisms under Article 6 of the Paris Agreement will be implemented. If a decision on the necessary framework is reached by Parties to the Paris Agreement, and Denmark decides to implement this framework, any units aquried by Denmark will not be used as contributions to reaching the joint EU target 2021-2030 under the Paris Agreement cf. the EU NDC for the period 2021-2030.

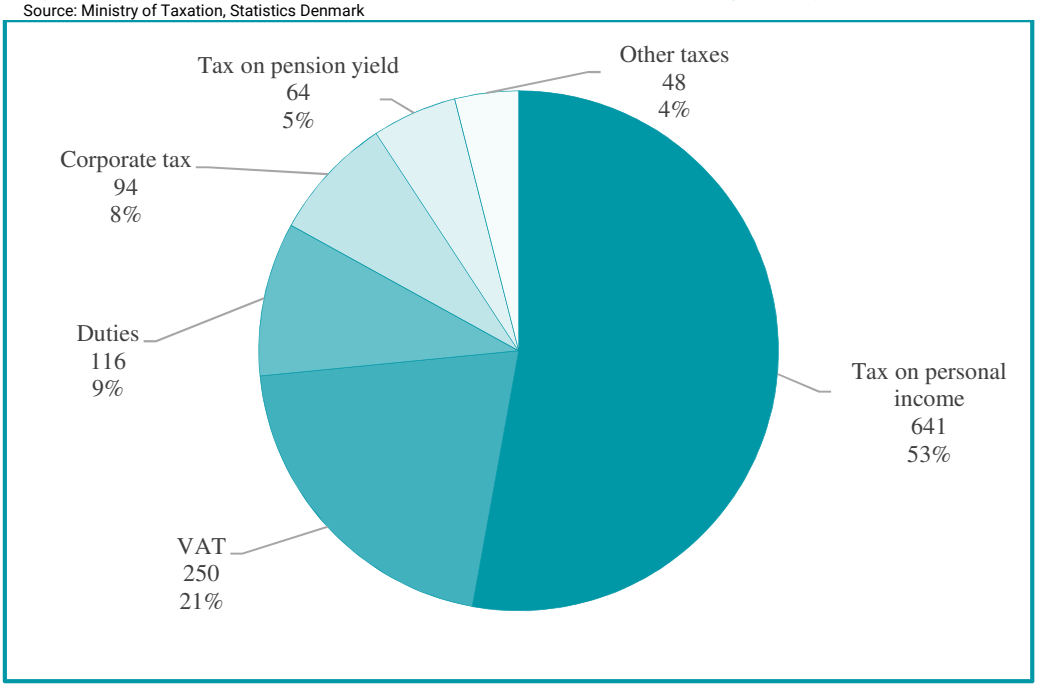
2.4.3.3 Cross-cutting – Taxes and duties

In Denmark, total taxes and duties made up a total of approx. 43% of GDP in 2023. The public sector provides childcare, education, unemployment benefits, health and disability benefits, old-age pensions, and many other services.

Personal income tax is the most important tax, constituting about half of total tax revenues. Other taxes are VAT, duties and corporation taxes. Danish VAT is relatively high, 25%, and there are no differentiated rates. There are a considerable number of additional consumption taxes and environmental taxes. The corporation tax rate is 22%.

Total revenue from all taxes and duties amounted to DKK 1,200 billion in 2023. The relative distribution is shown in Figure 4.2.

Figure 2.4(2) Relative distributions of taxes and duties 2023 in billion DKK and percentage
Source: Ministry of Taxation, Statistics Denmark



Taxes that influence Denmark's greenhouse gas emissions
Retail prices on products that influence Danish greenhouse gas emissions are, in most cases, the decisive factor determining the degree to which they are consumed. Energy prices influence the composition and total size of energy consumption. Therefore extra taxes and duties put on products influence the consumption of these products and the size of greenhouse gas emissions associated with the use of the products.

[32] https://www.kvoteregister.dk

Denmark has special taxes on motor vehicles, energy products, alcohol, tobacco, and a number of other products. Taxes are in accordance with EU legislation.

The introduction of CO_2 taxes and the increase in the rates of individual energy taxes since 1990 have influenced the consumption of a number of energy products and have therefore reduced the CO_2 emissions associated with consumption of these products.

2.4.3.3.1 CO_2, CH_4, and N_2O - taxes and duties relevant to these emissions

2.4.3.3.1.1 Energy

Denmark has had taxes on energy for many years. Since the first oil crisis in the early 1970s, the rates of the taxes have been aimed at reducing consumption and promoting the instigation of more energy-saving measures. Lower energy consumption will reduce emissions of CO_2, methane (CH_4), and nitrous oxide (N_2O) associated with combustion of fossil fuels.

Danish energy taxes are laid down in the four Danish tax acts on mineral-oil, gas, coal, and electricity, respectively (Mineralolieafgiftsloven, Gasafgiftsloven, Kulafgiftsloven, and Elafgiftsloven). As from 1 January 2016 the tax rates set in these tax acts follow a yearly regulation based on the consumer price index of two years prior. Besides the energy taxes there is also a tax on CO_2, NO_x, sulphur and industrial gasses (see Table 2.4(4)).

Table 2.4(4) Energy taxes 2010, 2015 and 2020-2023
Source: Ministry of Taxation

	Unit	2010	2015	2020	2021	2022	2023
Coal	*DKK/toe*	2,399	2,282	2,374	2,629	2,638	2,675
Natural gas	*DKK/toe*	2,405	2,282	2,374	2,629	2,638	2,675
Oil products[1]	*DKK/toe*	2,400	2,282	2,374	2,625	2,638	2,675
Electricity: For heating	*DKK/kWh*	0.545	0.380	0.210	0.008	0.008	0.008
Electricity: Other	*DKK/kWh*	0.659	0.878	892	90	0.900[2] 0.763[3] 0.723[4]	0.008[5] 0.697[6]
Waste: Heating from waste[7]	*DKK/toe*	1,930	1,901	1,980	2,190	2,198	2,227
Other compostable biomass	*DKK/toe*	0	0	0	0	0	0

[1]Only oil used for other purposes than motor fuels
[2]From 1 January 2022 – 30 June.
[3]From 1 July 2022 – 30 September 2022.
[4]From 1 October 2022 – 31 December 2022.
[5]From 1 January 2023 – 30 June 2023.
[6]From 1 July 2023 – 31 December 2023
[7]Tax rates on waste are rates on heat production (output) while tax rates on coal, natural gas and oil products are input rates. Rates correspond under the used convention in energy tax acts of heating efficiency for CHP plants.

A tax on NO_x (nitrogen oxides) was originally introduced as part of a 2008 energy agreement and came into effect on 1 January 2010 with a rate of 5 DKK per kg NOx. From 1 January 2012, a considerable increase in the taxation of NOx from 5 DKK per kg NOx to 25 DKK per kg NOx was implemented. However, the rate was reduced in 2016 to 5 DKK per kg NOx.

A tax on sulphur in fuels was introduced 1 January 1996 with a rate of 20 DKK per kg sulphur in fuels and a rate of 10 DKK for SO_2 emitted to the air. One of the side effects of this tax is assumed to be a reduction in CO_2 emissions.

In March 2012 a general agreement on Danish energy policy from 2012-2020 was made. The agreement seeks to ensure the transition from an energy supply based on fossil fuels to one based on renewable energy. Additional initiatives regarding taxes and duties have been adopted with the 2018 Energy Agreement and planned with the 2018 Climate and Air proposal. Further initiatives have been adopted with the 2020 Climate Agreement for energy and industry, the 2020 Green reform Agreement. To implement incitements to change to green energy and to meet the high energy prices several Agreements reducing the electricity tax was implemented in 2022, including the 2022 New reform package for Danish economy, the 2022 Compensation for citizens for higher energy prices Agreement, the 2022 Winter help Agreement. These initiatives are described later.

The Mineral-oil Tax Act entered into force on 1 January 1993. Before this, the tax on petrol was regulated via the Petrol Tax Act, which entered into force on 1 January 1983, and the Act on Taxation of Gas Oil and Diesel Oil, Heating Oil, Heating Tar, and Crude Oil was regulated via the Act on Taxation of certain Oil Products, which entered into force on 3 October 1977. Tax rates from recent years are shown in Table 2.4(5).

Table 2.4(5) Trends in taxes 2010, 2015 and 2020-2023 under the mineral-oil tax act, stated in DKK/litre
Source: Ministry of Taxation

DKK per litre	2010	2015	2020	2021	2022	2023
Gas oil and diesel oil used as motor fuels	2.774	2.997	3.120	3.147	3.159	3.204
Light diesel oil	2.669	2.881	2.999	3.025	3.037	3.080
Diesel low in sulphur content	2.479	2.674	2.784	2.808	2.818	2.859
Diesel without sulphur	2.479	2.674	2.784	2.808	2.818	2.859
Fuel oil	2.330	2.215	2.324	2.552	2.561	2.598
Auto gas	1.726	1.814	1.903	1.905	1.912	1.939

From 1 June 1999 a tax differentiation between light diesel and diesel low in sulphur was introduced, to encourage the use of diesel low in sulphur, which is less polluting than light diesel. This was accomplished and a change took place soon after to the effect that almost all diesel sold was low in sulphur. The purpose of further differentiation from 1 January 2005 favouring sulphur-free diesel was likewise to encourage the use of this type of diesel in favour of diesel low in sulphur, and this has been successful.

In addition, tax differentiation has been introduced in order to achieve environmental goals other than direct reductions in greenhouse gas emissions. Thus tax differentiation has been introduced with a view to phasing out lead in petrol. The rate of tax to achieve this environmental goal is shown in Table 2.4(6).

Further, the tax rate for mineral oils used in business are increased with 6 DKK/GJ which is phased in from 2023 to 2025. The tax rate for mineral oils used in mineral processes etc. and agriculture etc. are increased with 6 DKK/GJ in 2025. Both taxes will be indexed yearly and are an implementation of the 2020 Green Tax reform Agreement.

Table 2.4(6) Trends in taxes on different types of petrol 2010, 2015 and 2020-2023, DKK per litre
Source: Ministry of Taxation

DKK per litre	2010	2015	2020	2021	2022	2023
Petrol, with lead[1]	4.567	4.959	5.162	5.207	5.227	5.301
Petrol, lead-free	3.881	4.209	4.382	4.419	4.436	4.499

[1] The term has been kept even though petrol companies in Denmark ceased using lead for octane improvement in 1994.

The gas tax on natural and town gas was introduced in its current form on 1 January 1996 with a rate for both natural and town gas at DKK 0.01/Nm^3. There has been taxation on gas, however, since 1 January 1979, when the tax on town gas and LPG was introduced. The tax on town gas was cancelled again in June 1983 and regulation of the tax on LPG was transferred to the Mineral-gas Tax Act when this Act entered into force. From 1 January 2015 a tax on biogas was introduced. The tax rates on gas from recent years are shown in Table 2.4(7).

Further, the tax rate for gas used in businesses are increased with 6 DKK/GJ which is phased in from 2023 to 2025. The tax rate for gas used in mineral processes etc. and agriculture etc. are increased with 6 DKK/GJ in 2025. Both taxes will be indexed yearly and are an implementation of the 2020 Green Tax reform Agreement.

Table 2.4(7) Taxes on gas 2010, 2015 and 2020-2023, DKK per Nm^3
Source: Ministry of Taxation

DKK per Nm^3	2010	2015	2020	2021	2022	2023
Natural gas	2.270	2.158	2.246	2.486	2.496	2.531
Town gas	2.270	2.158	2.246	2.486	2.496	2.531

The coal tax was introduced on 1 July 1982 and constituted DKK 127/tonne for hard coal and DKK 91/tonne for lignite and lignite briquettes on the day of entry into force. In the period 1 January 1997 - 31 December 2015 the tax increased from DKK 950/tonne to DKK 1526/tonne for hard coal and DKK 700/tonne to DKK 1036/tonne lignite. The rates have since 2008 developed as shown in Table 2.4(8). With effect from 1 January 1999, the so-called waste heat tax introduced (see Law no. 437 of 26 June 1998) as part of the Coal Tax Act. The waste heat tax was introduced in connection with increases in general taxes on fossil fuels to avoid giving too much incentive in favour of waste-based heat production, and to counteract the increased incentive for incineration of waste instead of recycling. Since 1 January 2010 the tax has been based on the energy and CO_2 content of the waste. After the restructuring of the tax on waste, the waste incineration tax was transferred from the Waste Tax Act to the Coal Tax Act and carbon dioxide tax law (see Law no. 461 of 12 June 2009 and the entry into force of Executive Order no. 1125 of 1 December 2009). Context of the proposal was especially that the then tax structure for waste fuels and fossil fuels taken together could result in waste streams being affected, so waste is not disposed of where it was most effective regarding utilization of energy from waste. The purpose of the change was to make waste more cost-efficient, which means a welfare economic gain. The change improves the tax structure, because the waste now ordered virtually the same charges as fossil fuels. The restructuring charges will then be more neutral with respect to where the waste is burned. From 1 January 2010, energy from waste incineration is imposed a waste heat tax, surcharge and the CO_2 tax. CO_2 tax only applies for waste that is not biodegradable.

Table 2.4(8) Trends in coal taxes 2010, 2015 and 2020-2023, DKK per tonne
Source: Ministry of Taxation

DKK per tonne	2010	2015	2020	2021	2022	2023
Hard coal	1605	1526	1588.6	1758.1	1765	1790
Lignite	1089	1036	1078.5	1193.5	1198	1215

The electricity tax was introduced on 1 April 1977. With effect from 1 January 2013, the tax on electricity used for heating was reduced considerably, to take into account, that an increasing amount of renewable energy was being used in electricity production. It has been estimated that this will lead to an emission reduction outside the emissions trading scheme of 0.15 million tonnes CO_2 in 2015 and 0.29 million tonnes in 2018. Table 2.4(9) shows the development in electricity tax rates since 2010.

From 1 May 2018 until the end of 2019 the tax on electricity for heating was further reduced from DKK 0.407 per kWh by DKK 0.15 per kWh. In 2020 it was reduced by DKK 0.20 per kWh and from 2021 it was reduced by DKK 0.10 per kWh from 2021.

To implement elements of the 2020 Climate Agreement for energy and industry the tax on electrical heating was reduced from 0.155 DKK/kWh to 0.004 DKK/kWh for industries and to 0.008 DKK/kWh for households in 2021 in accordance with the EU minimum tax rates.

To support the green transition, a decrease on the electricity tax was agreed upon in the 2022 New reform package for Danish economic. The tax on electricity was reduced from 0,9 DKK/kWh to 0,796 DKK/kWh phased in from 2022-2030.

As a compensation for the high energy prices, the tax on electricity is temporarily reduced from 0,763 DKK/kWh to 0,723 in the 4th quarter of 2022 and further to 0,688 in 2023. Further, the Winter Help Agreement entailed a temporary reduction on the electricity tax to the EU minimum tax rate on 0,008 DKK/kWh in the first 6 months of 2023.

Table 2.4(9) Trends in electricity taxes 2010, 2015 and 2020-2023, DKK per kWh
Source: Ministry of Taxation

DKK per kWh	2010	2015	2020	2021	2022	2023
Consumption of electricity, exceeding 4,000 kWh in all-year residences heated by electricity and electricity for space heating and comfort cooling in VAT registered business	0.545	0.380	0.210	0.008	0.008	0.008
Other electricity	0.659	0.878	0.892	0.900	0.900[1] 0.763[2] 0.723[3]	0.008[4] 0.697[5]

[1]From 1 January 2022 – 30 June.
[2]From 1 July 2022 – 30 September 2022.
[3]From 1 October 2022 – 31 December 2022.
[4]From 1 January 2023 – 30 June 2023.
[5]From 1 July 2023 – 31 December 2023.

The CO_2 tax on energy products was introduced on 1 March 1992 and was imposed on different types of energy products relative to their CO_2 emissions. A tax reduction was given to light and heavy industrial processes. From 1 January 2010 a structural change in the CO_2 tax was implemented as an adaption to the EU Emissions Trading Scheme. The tax rate was increased to DKK 150 /tonne of CO_2 indexed as mentioned below, cf. Table 2.4(10). In total, this structural change in the CO_2 tax was estimated to lead to a reduction in the CO_2 emissions of 0.69 million tonnes.
Large waste incineration facilities are from 1 January 2013 included in the emissions trading scheme. This will lead to a reduction of CO_2 emissions outside the ETS of approximately 8.9 million tonnes.
Fossil energy products used for space heating are imposed the CO_2 tax regardless of the production is included in the ETS or not. Space heating included in the emission trading scheme is thus double taxed.

Table 2.4(10) CO_2 tax rates, 2000-2009, 2010, 2015 and 2020-2023, stated in DKK per tonne of CO_2
Source: Ministry of Taxation

DKK per tonne	2000 - 2004	2005 - 2009	2010[1]	2015	2020	2021	2022	2023
Basic rate								
Heating in industry	100	90	155.4	170.0	177.0	178.5	179.2	181.7
Light industrial processes								
Basic rate	90	90	-	-				
With a voluntary agreement	68	68	-	-				
Resulting subsidy	22	22	-	-				
Heavy industrial processes								
Basic rate	25	25	-	-				
With a voluntary agreement	3	3	-	-				
Resulting subsidy	22	22	-	-				
Industrial processes covered by the Emission Trading Scheme								
Basic rate [2]	-	-	0	0	0	0	0	0

[1] As of 1 January 2010 a structural change in the CO_2 tax was implemented. For the industries not regulated by the emissions trading scheme, a fixed lump sum transfer based on historical emissions was given, while the base rate was considerably increased to match the expected price of CO_2 quotas.
[2] Before 2010, the industrial processes covered by the ETS were taxed according to the table, depending on the type of process.

Table 2.4(11) shows examples of the different types of CO_2 taxes converted into consumer units.

In addition to this, there are CO_2 taxes on heating tar, crude oil, coke, crude oil coke, lignite briquettes and lignite, LPG, and other gases.

As of 1 January 2008 the CO_2 taxes follow a yearly regulation of 1.8% in the period 2008-2015, like the energy taxes. From 2016 the tax is regulated with the consumer price index two years prior as the energy taxes.

Table 2.4(11) Examples of CO_2 taxes
Source: Ministry of Taxation

	Unit	2010	2015	2020	2021	2022	2023
Gas oil and diesel oil	*DKK/litre*	0.413	0.451	0.469	0.474	0.475	0.482
Gas oil and diesel oil containing 4,8% bio fuel	*DKK/litre*	0.385	0.420	0.437	0.441	0.443	0.449
Fuel oil	*DKK/kg*	0.493	0.539	0.561	0.565	0.568	0.576
Lignite	*DKK/tonne*	225.8	306.8	319.4	322.1	323.4	328.0
Natural gas and town gas	*DKK/Nm³*	0.351	0.384	0.400	0.403	0.405	0.410
Petrol	*DKK/litre*	0.373	0.408	0.425	0.428	0.430	0.436
Petrol containing 4,8% bio fuel	*DKK/litre*	0.355	0.388	0.404	0.407	0.409	0.415

2.4.3.3.1.2 Transport

In the transport sector, the number of cars in Denmark and the use of motorised vehicles are influenced by the tax on cars and fuels. The latter has been described above.

The registration tax on motorised vehicles is based on the value of the vehicle. Further, an additional CO_2 element is added to the tax, so the cars that have higher CO_2-emissions also pay a higher tax. Passenger cars, light commercial vehicles and motorbikes are due to pay the registration tax.

Zero- and low-emission vehicles receive a tax advantage in the registration tax compared to conventional vehicles. The tax advantage is larger for zero-emission vehicles (typically electrical vehicles) than for low-emission vehicles (typically plug-in hybrid vehicles). For zero-emission vehicles, the registration tax is discounted to 40 % of the full tax, and then subtracted a flat fee of up to 165,000

DKK in 2023, while for low-emission vehicles, the registration tax is discounted to 55 % of the full tax, and then subtracted a flat fee of up to 47,500 DKK. The discount consists of a lower rate and a higher tax deduction. These tax advantages will be reduced gradually towards 2030, but not to zero.

Car owners have to pay half-yearly ownership taxes which for new cars registered after July 1st 2021 are differentiated in accordance with the CO_2-emissions, while for older cars, the taxes are differentiated in accordance with the fuel efficiency expressed in kilometres per litre.

2.4.3.3.2 HFCs, PFCs, and SF_6 - taxes and duties relevant to these emissions

Since 1 March 2001, imports of industrial gases HFCs, PFCs, and SF_6 (F-gases) in the industry/business sector have been subject to taxation. The tax is differentiated in accordance with the global warming potential of the substance with DKK 0.15 per kilogramme of CO_2 equivalents as the general principle and with DKK 600 per kilogramme as a general upper limit cf. the examples in Table 2.4(12).

As the taxes on industrial gases are based on the CO_2 tax, there was an increase in 2011, from DKK 0.10 per kilogramme of CO_2 equivalents to DKK 0.15, following the increased CO_2 tax rate shown in Table 2.4(10). The impact of this increase is expected to lead to a reduction in the emission of the industrial gasses of 0.02 million tonnes CO_2 equivalents.

There was a further increase in tax rates from July 1th 2021 by approximately 30 DKK per ton CO_2 equivalents, and tax rates are indexed in 2021 with 5.5 pct. and in 2024 with 3.6 pct., which is equivalent to an indexation of 1.8 pct. yearly in the period 2021-2025. Furthermore, the general upper limit of the tax rate of 600 DKK per kilogram was removed.

Table 2.4(12) Examples of taxes on F-gases, 2018 and 2023
Source: Ministry of Taxation

Substance	GWP (AR4)	GWP (AR5)	Tax in DKK per kg 2018	Tax in DKK per kg 2023
HFC-134a	**1430**	**1300**	215	270
R404a (a combination of 3 HFCs)	**3922**	**3943**	588	738
SF_6	**22800**	**23500**	600	4,294

Table 2.4(13) contains an overview of all existing taxes and duties relevant to greenhouse gas emissions in Denmark.

Table 2.4(13) Overview of Tax and Duty Measures

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
1-TD-01b: Mineral-oil Tax Act	Tax on mineral oil products in Denmark. The Mineral-oil Tax Act entered into force on 1 January 1993. Before this, the tax on petrol was regulated via the Petrol Tax Act, which entered into force on 1 January 1983, and the Act on Taxation of Gas Oil and Diesel Oil, Heating Oil, Heating Tar, and Crude Oil was regulated via the Act on Taxation of certain Oil Products, which entered into force on 3 October 1977. From 1 June 1999 a tax differentiation between light diesel and diesel low in sulphur was introduced, to encourage the use of diesel low in sulphur, which is less polluting than light diesel. This was accomplished and a change took place soon after to the effect that almost all diesel sold was low in sulphur. The purpose of further differentiation from 1 January 2005 favouring sulphur-free diesel was likewise to encourage the use of this type of diesel in favour of diesel low in sulphur, and this has been successful. In addition, tax differentiation has been introduced in order to achieve environmental goals other than direct reductions in greenhouse gas emissions. Thus tax differentiation has been introduced with a view to phasing out lead in petrol. Only the effects of the increase diesel tax, the lowering of the compensation-tax and the contemporary lowering of the milage-based roadtax are shown here.	2_14: Demand management/reduction, 3_20: Demand management/reduction	Economic instrument	Implemented	Energy, Transport	CO2, CH4, N2O	1993	Danish Ministry of Taxation	300	300
1-TD-02: Gas Tax Act	Tax on consumption of natural gas and town gas in Denmark.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1996	Danish Ministry of Taxation	NE	NE
1-TD-03: Coal Tax Act	Tax rated after the calorific value of coal, coke, furnace coke, coke gravel, crude coke, lignite briquettes and lignite, tall oil, wood tar, vegetable pitch etc.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1982	Danish Ministry of Taxation	NE	NE
1-TD-04: Electricity Tax	Tax on consumption of electricity. The electricity tax was introduced on 1 April 1977. With effect from 1 January 2013, the tax on electricity used for heating was reduced considerably, to take into account, that an increasing amount of renewable energy was being used in electricity production.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1977	Danish Ministry of Taxation	NE	NE
1-TD-05: CO2 tax on energy products	Tax on energy products depending on their contribution to CO2 emissions. The CO2 tax on energy products was introduced on 1 March 1992 and was imposed on different types of energy products relative to their CO2 emissions. From 1 January 2010 a structural change in the CO2 tax was implemented as an adaption to the EU Emissions Trading Scheme. The tax rate was increased to DKK 150 /tonne of CO2 indexed. In addition to this, there are CO2 taxes on heating tar, crude oil, coke, crude oil coke, lignite briquettes and lignite, LPG, and other gases. As of 1 January 2008 the CO2 taxes follow a yearly regulation of 1.8% in the period 2008-2015, similar to the energy taxes. From 2016 the tax is regulated with the consumer price index two years prior. A higher and more uniform CO2 tax was decided in 2023. It is only the estimated effects on CO2-emissions of the decision from 2023 that are shown here.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2	1992	Danish Ministry of Taxation	1200	2500
1-TD-06: Green Owner Tax - a fuel-efficiency-dependent annual tax on motor vehicles	Car owners have to pay half-yearly taxes which for new cars from july 1st 2021 and onwards are differentiated in accordance with the expected CO2-emissions.	3_20: Demand management/reduction	Economic instrument	Implemented	Transport	CO2, CH4, N2O	1997	Danish Ministry of Taxation	NE	NE
1-TD-07: Registration Tax - a fuel-efficiency-dependant registration tax on passenger cars and vans	The registration tax on motorised vehicles is calculated on basis of the value of the vehicle. Further an additional CO2 element is added to the tax, so the cars that have higher CO2-emissions also pay a higher tax. Passenger cars, light commercial vehicles and motorbikes are due to pay the registration tax. Further the registration tax is lower for zero- and lowemissions cars to support the uptake of these. The effects shown only stems from the restructured of the tax adopted in 2020 and implemented since 2021.	3_20: Demand management/reduction	Economic instrument	Implemented	Transport	CO2, CH4, N2O	2000	Danish Ministry of Taxation	200	500
1-TD-08: Tax on HFCs, PFCs and SF6 - equivalent to the CO2 tax	Tax on HFCs, SF6 and PFCs. The tax is differentiated in accordance with the global warming potential of the substance with DKK 0.15 per kilogramme of CO2 equivalents as the general principle and with DKK 600 per kilogramme as a general upper limit.	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Economic instrument	Implemented	Industrial processes and product use	HFCs, PFCs, SF6	2001	Danish Ministry of Taxation	NE	NE

Table 2.4(13) Overview of Tax and Duty Measures (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
1-TD-09: Tax on methane from natural gas fired power plants - equivalent to the CO2 tax	Tax on methane emissions from natural gas fired power plants - equal in terms of CO2 equivalents to the CO2 tax. As of 1 January 2011 a tax on methane emissions - equal in terms of CO2 equivalents to the CO2 tax - from natural gas fired power plants was introduced. This is expected to reduce methane emissions from gas engines through behavioural changes such as changing from motor operation to boiler operation and establishing mitigation measures. Consumption is also expected to fall as the price of heat will increase. These behavioural changes will result in falls in the emissions of unburned methane from power stations. In addition, CO2 emissions will fall and consumption of natural gas will fall. In total, a decline of 0.06 million tonnes CO2 equivalent emissions in 2 out of 5 years is expected, corresponding to an average annual reduction effect of approximately 0.02 million tonnes CO2 equivalent per year in 2008-12.	1_05: Reduction of losses, 1_08: Control of fugitive emissions from energy production	Economic instrument	Implemented	Energy	CH4	2011	Danish Ministry of Taxation	NE	NE
1-TD-12: Extension of low process electricity tax for charging electric and plug-in hybrid cars that subscribe to driving power through a business service until 2031	Extension of low process electricity tax for charging electric and plug-in hybrid cars that subscribe to driving power through a business service until 2030	3_19: Electric road transport	Economic instrument	Implemented	Transport	CO2	2020	Danish Ministry of Taxation	NE	NE
1-TD-13: Increase in CFC tax [enhancement of 1-TD-08]	The tax on HFCs, SF6 and PFCs is increased by 1. july 2021. The taxrates for the gasses are increased by approximately 30 DKK pr. ton CO2e. The ceiling of the taxrate, which amounted to 600 DKK pr. kg, is removed. The taxrates are indexed in 2021 with 5.5 pct. and in 2024 with 3.6 pct., which is equivalent to an indexation of 1,8 pct. yearly in the period 2021-2025. The lower limit on taxation of import and manufactoring of gasses are removed. [enhancement of 1-TD-08]	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Economic instrument	Adopted	Industrial processes and product use	HFCs, PFCs, SF6	2021	Danish Ministry of Taxation	NE	NE
1-TD-14: Mileage-based toll for trucks	The mileage-based toll for trucks will be in place from 2025.	3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Transport	CO2	2025	Danish Ministry of Taxation	200	300
1-TD-15(NEW): Green restructuring of heating taxes	A green restructuring of heating taxes has been decided and implemented to support green choices (heat pumps, district heating etc.) over heating solutions based on fossil fuels (oil - and gas furnaces etc.).	1_02: Increase in renewable energy in the heating and cooling sector, 3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Energy	CO2	2025	Danish Ministry of Taxation	250	350
1-TD-16(NEW): Increase of energy taxes on fossil fuels use in the business sector	An increase of 6 DKK/GJ energy taxes on fossil fuels use in the business sector has been decided. It is only the estimated CO2-effects of this increase, that are shown here.	3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Energy	CO2	2025	Danish Ministry of Taxation	500	500

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.

** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.4 Cross-cutting – Carbon Capture and Storage and Green Research

2.4.3.4.1 Carbon capture and storage

In 2022, Denmark adopted a so-called green tax reform with the objective of achieving a reduction of 4.3 million tonnes of CO_2 emissions annually by 2030. This green tax reform entails the introduction of a more consistent CO_2 tax structure.

By 2030, companies outside the EU's Emissions Trading System (ETS) will face a uniform CO_2 tax rate of 750 DKK/tonne, while ETS companies will be subject to a CO_2 tax rate of 375 DKK/tonne. Notably, mineralogical processes, particularly subject to risks of carbon leakage, will be subject to a reduced tax rate of 125 DKK/tonne. As part of the reform, tax revenues generated would be allocated to support further reductions and removals, for example through Carbon Capture and Storage (CCS) initiatives. Approximately 26.8 billion DKK are expected to be allocated for a CCS funding scheme over 15 years. The CCS funding scheme is expected to achieving reduction/removals of 2.29 million tonnes of CO_2 emissions annually by 2030.

Moreover, Denmark has introduced a funding scheme to develop and showcase the country's first full value chain for carbon capture, utilization, and storage (CCUS). The CCUS funding scheme has in its first pool a budget of 8 billion DKK over approximately 20 years and is expected to achieving a reduction/removals of 0.9 million tonnes of CO_2 emissions annually by 2030. In the first competitive bidding funding round completed in May 2023, Ørsted was awarded a 20-year contract to capture and store 0.43 mio. tonnes of CO_2 annually from 2026 by means of BECCS.

Furthermore, a funding scheme has been adopted aimed at achieving carbon removals (negative emissions) from technological sources. This funding scheme has a budget of 2.6 billion DKK from 2025 to 2032, and is expected to achieving removals of 0.16 million tonnes of CO_2 emissions annually by 2030. The initiative provides support for carbon removals from a variety of biogenic sources, which includes CO_2 captured from biogas being upgraded to biomethane (Bio-CCS), CCS with biomass-based energy production (BECCS), CCS on the biogenic fraction of CO_2 captured from waste incineration and industrial plants, as well as direct carbon capture from the atmosphere and storage (DACCS). These initiatives are included in Table 2.4(14).

2.4.3.4.2 Green research

The allocation of research funding in Denmark’s government budget is subject to annual negotiation among the Parties in the Danish parliament, based on a proposal presented by the government.

In recent years, the Danish research and innovation policy has placed a strong emphasis on addressing climate challenges and contributing to the goals defined in the Danish Climate Act.

In 2024, the government and all other parties in the Danish parliament allocated DKK 4.2 billion for research and innovation as part of the public research budget of DKK 28.7 billion, which corresponds to 1 percent of GDP. To support the green transition, Denmark is earmarking DKK 2.6 billion for green research in 2024. Of this, DKK 1.9 billion is aimed at supporting research in CO_2 storage, future plant-based foods and reduction of food waste, arctic research and climate, forecasting and knowledge about flooding and drought, and handling of PFAS.

Table 2.4(14) Cross-crutting measures – Carbon Capture and Storage and Green Research

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
0-CC-01: Funds for supporting capturing and storing CO2 (CCS)	In 2022, Denmark adopted a so-called green tax reform with the objective of achieving a reduction of 4.3 million tonnes of CO2 emissions annually by 2030. This green tax reform entails the introduction of a more consistent CO2 tax structure. By 2030, companies outside the EU's Emissions Trading System (ETS) will face a uniform CO2 tax rate of 750 DKK/tonne, while ETS companies will be subject to a CO2 tax rate of 375 DKK/tonne. Notably, mineralogical processes, particularly subject to risks of carbon leakage, will be subject to a reduced tax rate of 125 DKK/tonne. As part of the reform, tax revenues generated would be allocated to support further reductions and removals, for example through Carbon Capture and Storage (CCS) initiatives. Approximately 26.8 billion DKK are expected to be allocated for a CCS funding scheme between 2026 and 2041. The CCS funding scheme is expected to achieving reduction/removals of 2.29 million tonnes of CO2 emissions annually by 2030.	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2026	The Danish Ministry of Climate, Energy and Utilities	NA	2290
0-CC-02: Market-based subsidy pool for capturing and storing CO2 (CCUS)	Denmark has introduced a funding scheme to develop and showcase the country's first full value chain for carbon capture, utilization, and storage (CCUS). The CCUS funding scheme has a total budget of 8 billion DKK from 2025 to 2045 and is expected to achieving a reduction/removals of 0.43 million tonnes of CO2 emissions annually by 2030. In the first competitive bidding funding round completed in May 2023, Ørsted was awarded a 20-year contract to capture and store 0.43 mio. tonnes of CO2 annually from 2026 by means of BECCS.	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2025	The Danish Ministry of Climate, Energy and Utilities	30	430
0-CC-03: Technology-neutral funds for supporting CO2 capture etc. (NECCS)	A funding scheme has been adopted aimed at achieving carbon removals (negative emissions) from technological sources (NECCS). This funding scheme has a budget of 2.6 billion DKK from 2025 to 2032, and is expected to achieving removals of 0.16 million tonnes of CO2 emissions annually by 2030. The initiative provides support for carbon removals from a variety of biogenic sources, which includes CO2 captured from biogas being upgraded to biomethane (Bio-CCS), CCS with biomass-based energy production (BECCS), CCS on the biogenic fraction of CO2 captured from waste incineration and industrial plants, as well as direct carbon capture from the atmosphere and storage (DACCS).	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2026	The Danish Ministry of Climate, Energy and Utilities	NA	160
0-CC-04: Investment in green research, development, and demonstration.	Investment in green research, development, and demonstration cf. the research reserve agreement for 2022 and 2023 - 2025. EUDP is reported separately (2-EN-06). The allocation of research funding in Denmark's government budget is subject to annual negotiation among the Parties in the Danish parliament, based on a proposal presented by the government. In recent years, the Danish research and innovation policy has placed a strong emphasis on addressing climate challenges and contributing to the goals defined in the Danish Climate Act. The 2022 budget includes a research reserve agreement of DKK 2.4 billion, with budgetary reservations extending from 2023 to 2025.	3_24: Other transport, 4_29: Other industrial processes, 5_38: Other waste, 6_45: Other agriculture. , 7_56: Other land use, land-use change and forestry	Economic instrument	Adopted	Transport, Industrial processes and product use, Agriculture, LULUCF, Waste management	CO2, CH4, N2O, HFCs, PFCs, SF6	2022	The Danish Ministry of Higher Education and Science	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.5 Energy (Fuel Combustion, including Transport, and Fugitive Emissions from Fuels)

Greenhouse gas emissions from energy (as defined by the 2006 IPCC Guidelines for greenhouse gas inventories – i.e. from energy consumption and – in the case of Denmark – from flaring) made up 65.8% of Denmark's total greenhouse gas emissions in 2022 (with LULUCF), of which CO_2 was the primary emission. 97.7% of the emissions from the energy sector are CO_2. 1.3% is methane (CH_4), and the remaining 1.0% is nitrous oxide (N_2O).

2.4.3.5.1 CO_2

Energy production and energy-consuming activities in the transport sector and industry are main contributors to the total emissions of CO_2 due to use of coal, oil and natural gas. The energy sector is, therefore, centrally placed in efforts to reduce emissions of CO_2.

Many initiatives have been taken over the years to reduce the emissions, and work is still going on to find the best and most cost-effective measures with the objective to fulfil Denmark's international climate obligations.

Danish experience shows that through persistent and active energy policy focus on enhanced energy efficiency and conversion to cleaner and renewable energy sources, it is possible to sustain high economic growth and at the same time reduce fossil fuel dependency and protect the environment. The energy sector is fully liberalised. Today, electricity production from Danish power plants is controlled by market forces. Danish electricity generation is traded freely across national borders on the Nordic and the north-German electricity markets. Thus there is a significant extent of integration in the Northern European electricity market. This entails, for example, that increased use of renewable energy in the Danish electricity system or enhanced efforts to save electricity do not automatically mean that generation at coal-fired power plants is reduced correspondingly during the first commitment period of the Kyoto Protocol 2008-2012.

In 2023, a pivotal result of the commitments was to end fossil fuel consumption by all large heart and powerplants and finalise the transition to sustainable sources of energy.

The introduction of the CO_2 allowance regulations through the EU emissions trading scheme (EU ETS) has been pivotal for Denmark’s ability to comply with the climate commitments. The EU ETS constitutes a central instrument in ensuring that the Danish energy sector is enabled to provide the emission reductions required if Denmark is to comply with its climate obligations. At the same time, the EU ETS permits significant improvements to the cost effectiveness of Denmark's climate effort.

The government’s long-term objective is to become a nation with an energy supply solely based on renewable energy sources and thus independent of fossil fuels.

The objective of the Danish energy policy today is security of supply, environmental concerns, energy savings and well-functioning energy markets within frameworks that secure cost effectiveness. Several initiatives often meet more than one of the purposes mentioned at the same time. Efforts concerning climate change should thus be seen in a broader context than CO_2 alone, not least when it comes to the purpose and calculation of effects.

Denmark gave priority to renewable energy sources and energy efficiency early on. Most of the public support schemes and regulations have prioritised energy efficiency and renewable energy. In this respect the development in Denmark has been quite different from other IEA countries, which have invested in new energy supply – notably nuclear energy.

Danish public support programmes have instigated competition amongst private companies. Most public support for energy research and development in Denmark has been open for competing applicants. Similarly, all procurement of energy technologies induced by public schemes has followed EU rules requiring open tenders or has left it to competitive markets in general.

A large number of policies and measures have been implemented over the years to meet the various energy-policy objectives cf. Table 2.4(15).

2.4.3.5.1.1 The allowance regulation relevant to the energy sector

A key instrument for reaching the goals for emission reductions is the EU Emission Trading Scheme (EU ETS), which is a CO_2 allowance scheme for energy production and energy-intensive industries as described in section 4.3.1. The EU Member States have devised this trading scheme for greenhouse gas emissions in order to fulfil the international climate commitments set out in the Kyoto Protocol and

the Paris Agreement, in particular with the aim of reducing CO_2 emissions from energy production and energy-intensive industries.

The allowances scheme entered into force for the first time on 1 January 2005. The 2005-2007 period was used as a testing phase. The EU ETS Directive has been revised a number of times – especially for the following phases (2: 2008—2012, 3: 2013-2020 and 4: 2021-2030).

The legislative framework of the EU ETS for the trading period 2021-2030 (phase 4) was revised in early 2018 to enable it to achieve the EU's 2030 emission reduction targets in line with the 2030 climate and energy policy framework and as part of the EU's contribution to the 2015 Paris Agreement.

The Fit for 55 package, endorsed on 8 February 2023 by the Permanent Representatives Committee, proposes to revise several pieces of EU climate legislation, including the EU ETS, setting out in real terms the ways in which the Commission intends to reach EU climate targets under the European Green Deal. The revised EU ETS Directive, which will apply for the period 2021-2030, will enable this through a mix of interlinked measures - e.g. inclusion of ETS Maritime and ETS Transport, Building and Industries from 2027 (ETS2).

2.4.3.5.1.2 Energy and CO_2 taxes

Taxes have also been used for many years as an instrument to reduce CO_2 emissions from the energy sector, since fuels used for heat production are subject to energy and CO_2 taxes. The main objective is general GHG reductions and the promotion of the use of fuels with lower CO_2 emissions, mainly biomass. Energy and CO_2 taxes are described in detail in section 2.4.3.3.

2.4.3.5.1.3 Combined heat and power and liberalisation of waste incineration

The main elements of the Danish strategy to promote renewable energy and the efficient use of energy resources since the end of the 1970s have been increased use of CHP and expanding of district heating areas. Effective heat supply planning has ensured the highest share of district heating and CHP in the Western Hemisphere. This has secured early markets for district heating technologies and a possibility for the use of many renewable energy sources like straw, municipal waste, wood waste and geothermal energy. CHP plants produce about 36% of Denmark's domestic electricity consumption, and the potential for further use of CHP is limited. Wind energy delivered about 53% of domestic electricity supply in 2021. Consequently, CHP production will decrease in the future, though CHP and the valuable services CHP plants provide - also in terms of back up capacity – will remain an integral part of the overall system.

Historically, CHP has been promoted in various ways, e.g. through favourable taxation schemes, and an obligation for consumers to connect to district heating systems, should they be rolled out in consumer areas. These were important schemes for expanding district heating in Denmark. However, due to an update to EU's state aid rules, the so-called "base subsidy" for decentral CHP plants was revoked in 2018, causing great change to the heating sector. The 2018 Energy Agreement aimed to modernise the heating sector and mitigating the impacts of eliminating the "base subsidy".

Regulatory constraints on the heat production of district heating plants were eliminated, giving them the freedom to invest in transitions to greener energy, e.g. heat pumps, biomass and geothermal systems, thus enabling the transition towards a renewable energy system. The regulatory relief for individual district heating plants depends on the size of their district heating areas. The last constraints are expected to be lifted by 2030 at the latest.

The 2018 Energy Agreement gave consumers a greater freedom of heating choice. The power to obligate consumers to be connected to the collective heating system was abolished. This allowed for investment in other individual heating solutions, e.g. heat pumps for single homes.

No new consumer obligations are permitted as from January 2019.

The purpose of the modernisation was to ensure that the district heating sector remained viable without public subsidies. In the short term, the elimination of this base subsidy may cause higher heating bills for some consumers. Therefore, the energy agreement also allocated DKK 540 million in the period 2018-2023 for targeted efforts to help heating plants and consumers, and to help manage stranded costs.

In 2020, Denmark adopted a new energy agreement where one of the initiatives targeted the transition to green district heating. With the agreement came a series of changes to the regulation of the heating sector that affected combined heat and power plants.

With the agreement, the cogeneration requirement was repealed, meaning that there is no longer a requirement for heat production facilities in central areas to have to be established as cogeneration. Furthermore, the fuel-binding requirement for the natural gas-based district heating areas was repealed, meaning that there is no longer a requirement for the cogeneration plants in these areas to produce heat/power with natural gas and/or oil. The purchase obligation for natural gas was repealed, while the purchase obligation for district heating was modernized. The modernization meant that the purchase obligation for district heating does not apply if a central heating plant's utilization of its own excess heat or production of renewable energy is more economically advantageous than district heating. Lastly, an adjustment to the socioeconomic requirement for new or refurbished heating plants was repealed, meaning that the project approving authority could choose not to compare the projects socio economy with fossil-based alternatives, to advance the establishment of green heating projects.

In 2022, Denmark again adopted a new energy agreement of which two initiatives will affect the combined heat and power plants. With the agreement, Denmark is working towards a complete prohibition against the approval of new projects for heat-only technologies that use fossil fuels as main fuel for base, upper base and peak loads for district heating. Only reserve or emergency load units are exempted.

As all waste incineration plants in Denmark have energy recovery, primarily heat for district heating, emissions from waste incineration are reported under the IPCC catgory “Energy” (i.e. not under “Waste”). However, in Denmark, the waste sector is treated as one economic sector. Although CO_2 emissions from waste incineration are included under the EU ETS, additional national efforts have been made to seek to reduce these emissions. On June 16, 2020, the Danish Government and Parties representing a broad majority in the Danish Parliament entered into an agreement on a ‘*Climate plan for a green waste sector and a circular economy*’. As a follow-up to this plan, a supply-based model for waste incineration in Denmark was adopted by a majority in the parliament in June 2023. It was estimated that the implementation of this supply-based model will reduce CO_2 emissions from waste incineration in Denmark.

2.4.3.5.1.4 Renewable energy

The increasing use of renewable energy sources is reducing emissions of CO_2 from fossil fuels. The long term goal for the Danish government is to be a climate neutral society by 2045.

In Climate Projection 2024, the estimates for 2030 are the following: approximately 74% renewable energy in gross energy consumption; approximately 111% of electricity consumption to be supplied by renewable energy; gross energy consumption will remain stable towards 2030; and by 2030 greenhouse gas emissions will be reduced by 68% compared to 1990.

The expansion of energy from renewable sources will – according to the Climate Projection 2024 ensure that 68% of the nation’s energy needs are met with renewable energy by 2030.

Onshore wind power and solar photovoltaic power

Electricity production from onshore wind and solar has historically been supported by various support schemes. Most recently, Denmark has carried out technology neutral tenders from 2018 to 2021 where onshore wind, solar PV and open-door offshore wind projects could compete for the lowest possible support. With the Climate Agreement from June 2022, the parties behind the agreement decided to discontinue the technology neutral tenders and it is expected that onshore wind and solar projects will be installed subsidy-free going forward. In the 2022 agreement the parties also decided to ensure framework conditions that can enable a fourfold increase in total electricity production from solar energy and onshore wind by 2030.

Since 2018 Denmark has supported installation of R&D onshore wind turbines with the aim of supporting the technological development of wind energy and ensuring continued development activities. With the Climate Agreement on Green Electricity and Heating from June 2022, the parties decided to change the support for experimental wind turbines in 2023-2024 from operational support to investment support as recommended in the Experimental Wind Turbine Analysis from 2021. In 2023, a majority in the parliament adopted a proposal to change from operational support to investment support for experimental wind turbines. The investment support pool for experimental wind turbines on land in 2023 opened on August 15, 2023 and closed on November 15, 2023. Denmark is continuously working to support and ensure good framework conditions for the testing of experimental wind turbines, which can enhance the industry's opportunities to bring new types of wind turbines to the

market. Currently, an environmental and habitat impact assessment is being prepared for the expansion and adaptation of the Østerild test center. If the expansion of Østerild is adopted, it will provide wind turbine manufacturers with test sites for larger wind turbines of up to 450 meters. Additionally, it has been decided to adapt the Høvsøre test center by decommissioning two of the total seven sites to enable the testing of prototype wind turbines of up to 275 meters in height on the remaining five sites.

Offshore wind power
Since 2012, a number of political agreements have been concluded regarding offshore wind energy in Denmark. The agreements are *the 2012 Energy Agreement*, *the 2018 Energy Agreement*, *the 2020 Climate Agreement for Energy and Industry*, *the 2021 Additional Agreement on ownership and construction of the Energy Islands etc*., the 2021 and 2022 underlying tender preparing Partial Agreements, *the 2022 Additional Agreement for Energy Island Bornholm*, *the Finance Act of 2022, the 2022 Climate Agreement* and *the May 2023 Additional agreement on tender requirements for 6 GW OWF and Energy Island Bornholm*.

In accordance with *the 2012 Energy Agreement* the two Offshore Wind Farms (OWFs) Horns Rev 3 (407 MW) and Kriegers Flak (604 MW) has been fully commissioned in August 2019 and September 2021. Furthermore, the nearshore wind farms from *the 2012 Energy Agreement*, Vesterhav Syd (168 MW) and Vesterhav Nord (176 MW) have been fully commissioned in 2024 and inaugurated on 12 September 2024.

In *the 2018 Energy Agreement*, it was decided to establish three new OWFs towards 2030. The first OWF, Thor Havvindmøllepark (1000 MW), has finalized the tender process and is expected fully commissioned in 2027. The second OWF, Hesselø Havvindmøllepark, is delayed due to challenging seabed but is expected fully commissioned in 2030 with a capacity between 800 – 1.200 MW. The agreeing parties of *the 2020 Climate Agreement* decided that the third OWF is a part of the coming Energy Island Bornholm.

In *the 2020 Climate Agreement* it was decided to establish two Energy Islands with connected OWFs. One in the North Sea (10 GW) and one in the Baltic Sea (2 GW) on Bornholm. *The 2022 Additional Agreement for Energy Island Bornholm* expanded the capacity for Energy Island Bornholm with an additional 1 GW to a total of 3 GW. *The 2020 Climate Agreement* stipulates a long-term ambition of minimum 10 GW connected to the North Sea Energy Island.

The Finance Act of 2022 further stipulated an additional tendering of 2 GW offshore wind energy. One of the 2 GW is placed at Energy Island Bornholm cf. *the 2022 Additional Agreement for Energy Island Bornholm*.

The 2022 Climate Agreement decided additional tendering of minimum 4 GW offshore wind energy with commissioning in 2030.

Furthermore, the Danish Government has granted permits to establish Frederikshavn OSW. The project will have a capacity of 72 MW.

In May 2023, *the Additional agreement on tender requirements for 6 GW OW and Energy Island Bornholm* decided the tender requirements of 6 GW off-shore wind and 3 GW related to Energy Island Bornholm. Furthermore, this agreement allowed overplanting enabling up to 14 GW or more. The agreement enabled that the tender process could begin, with the political aim of full commission of the collective 9 GW OW in 2030 and two years later for overplanted capacity. After the political agreement, the Danish Energy Agency has held consultations with the market about the specific tender conditions. The tenders for 6 GW of offshore wind were launched in April 2024. As no bids were received for the three areas in the North Sea (3 GW) by the deadline 5 December 2024, a dialogue with the market actors has immediately been initiated.

Biomass
In 2022, biomass accounted for approximately 63% of renewable-energy production, mostly in the form of straw, wood pellets, wood chip and biodegradable waste for incineration. Approximately 38% of the biomass was imported, mainly in the form of wood pellets (45 PJ) and wood chips (20 PJ).
The energy production from biomass has more than doubled since 1990 - primarily due to the policy agreement from 1993 (the Biomass Agreement: requires power plants to use 1.4 million tonnes of straw and wood, equivalent to almost 20 PJ per year) and the policy agreement from February 2008 on the increased use of straw and chips at the large co-generation plants (up to 700,000 tonnes in 2011). In recent years, the consumption have stabilised.

Liquid biofuels, such as animal and vegetable oils, biodiesel and bioethanol, are used only on a small scale. Liquid biofuels from bio-waste by the so-called second-generation technologies are at a low level.

2.4.3.5.1.5 Fuel conversion from coal to natural gas and biogas and other green gases

Substitution of coal and oil by natural gas reduces emissions of CO_2. The first Danish natural gas was landed from the Danish sector of the North Sea in 1984, and since then consumption of natural gas has increased to 193 PJ in 2001. Since then, consumption has decreased to 92 PJ in 2021 due mainly to high gas prices. In 2021, natural gas covered 13% of gross energy consumption. In the power sector, natural gas was introduced in 1985 and peaked with 25% around 2000. In 2021, this had decreased to 4%, mainly due to the relation between power prices and gas prices. The use of natural gas is expected to decrease further as a result of introducing more renewable energy and extensive energy-saving policies.

In 2021, a new gas strategy was published. The strategy explores the potential of biogas and other green gases and lay the foundation for achieving a 100% green gas system in Denmark, thus contributing to a climate-neutral Denmark by 2050 at the latest cf. the Danish Climate Act.

The gas crisis in 2022 played a significant role in reshaping energy consumption patterns, leading to a substantial 22% reduction in natural gas demand from August 2022 to March 2024 compared to the average consumption in 2017-2022. This period showed a concerted effort to reduce reliance on traditional natural gas, paving the way for alternative sources. Currently, biomethane holds a 37% share in the gas system, and the latest national climate projections estimates the share will rise to 100% by 2029 (in consumption terms over 100% as export is projected).

2.4.3.5.1.6 Research and development

Danish support for new energy technologies has been comprehensive and relatively stable. A long list of direct and indirect support schemes and policies have, in combination, created a domestic market which has given Danish companies a boost. This boost has enabled many companies to become international market leaders. Danish companies continue to enjoy commercial success within the energy-related marketplace.

R&D activities include energy savings, more efficient energy conversion, renewable energy technologies, Power-to-X, CCUS and efforts within System Integration and Smart Energy.

Research and development activities in the field of energy are not motivated solely by climate issues, but are relevant to climate issues, since they contribute to determining the overall framework for the CO_2 intensity of energy production and consumption in the future.

There is a broad political commitment to support R&D activities through public funding.

Thus Denmark has chosen to strengthen the dedicated public investments in clean energy research, development and demonstration focusing on reduction of technology costs and CO_2 emissions and with an emphasis on innovative projects that can be replicated and scaled up with the involvement of private investors. There are two major public funding instruments within energy technology.

The EUDP programme was established in 2008 and since then the programme has supported more than 1200 projects with a total of DKK 6 billion. On average, 45-50% of the activities under the Programme are financed by the EUDP and hence the private investments in the supported projects are of the same size as the public support leading to approximately to DKK 12 billion in total investments. The Danish Parliament has dedicated DKK 500 million for EUDP for the fiscal year 2022.

Activities relating to strategic research and innovation in general are since 2014 administrated by Danish Innovation Fond. The Fund covers all sorts of research and innovation projects and is not limited to energy matters. However, for 2023 at least DKK 320 million will be earmarked for R&D within new and clean energy technologies.

Four research missions have been launched in 2021. Three of them are related to the energy and climate field in themes like CCUS, Green Fuels and Environmental friendly Agriculture. They are now established as partnerships. In 2023, the public funding is DKK 300 million.

A minor programme, ELFORSK, is administrated by the Danish Energy Agency in collaboration with the Danish energy association Green Power . The objective is to support research and development of efficient energy use and flexibility solutions within electricity and energy via data, digitization and sector coupling in accordance with environmental and socio-economic considerations, including the dissemination of methods, solutions, analyses and models. The annual funds for this programme are DKK 25 million.

Intensifying energy and climate research as we move towards 2030 will ensure continued efforts to develop the technologies that will help Denmark's energy system transition to cleaner and greener solutions. Research and development in new energy and climate technology solutions will also generate new opportunities for growth, jobs and Danish technology exports.

The research funding will support Denmark's commitment to the international collaboration Mission Innovation, in which a number of countries have pledged to increase energy research funding by 2020. With an ambitious funding target of 1 billion DKK from 2024 onwards, Denmark further cements its long-term commitment to research, development and demonstration in the field of energy and climate. Through Danish initiatives such as the Energy Technology Development and Demonstration Program (EUDP) and Innovation Fund Denmark, Denmark is contributing to the global cooperation to develop the energy and climate technologies of tomorrow.

The EUDP funding will support the development and demonstration of Danish energy technology solutions, with a view to subsequent commercialisation. These solutions may range from new floating foundations for offshore wind turbines, to large scale demonstration projects such as Greensand, which injects CO_2 in the deployed oil fields in the North sea.

Strategic and applied energy research is among the many activities supported by Innovation Fund Denmark. This funding is awarded directly to talented researchers, entrepreneurs and companies, as well as to others with strong ideas about energy technology solutions for the benefit of society.

2.4.3.5.1.7 Energy savings

Reducing energy consumption by increasing energy efficiency and promoting energy saving is a very important element for Danish energy policy.

Among the grid and distribution companies (electricity, natural gas, oil and heating), the electricity companies have been working with energy savings since the early 1990s and the natural gas and district heating companies have been working with energy savings since 2000.

The Energy Efficiency Obligation Scheme
Since 2006, several political agreements have been reached to significantly strengthen the energy savings efforts in Denmark.

The obligations have been implemented as voluntary agreements between the energy minister and grid and distribution companies under the Energy Efficiency Obligation Scheme (EEO). The companies' costs are financed by a levy on their tariffs.

In the policy agreement from 2012, the obligation for the grid and distribution companies in the electricity, natural gas, district heating and oil sectors was increased by 75% in 2013 and 2014 (to 10.7 PJ) and by 100% in 2015 (to 12.2 PJ). In December 2016, the Minister of Energy, Utilities and Climate entered a new agreement on energy savings with the grid and distribution companies for the period 2016-2020. The obligation was decreased from 12.2 PJ to 10.1 PJ in 2016 to 2020. Following from a political agreement, the EEO was discontinued by the end of 2020 and replaced with new policy measures

Political Agreements directed towards energy efficiency / energy consumption
In May 2020, a political agreement to ensure green renovation of the social housing sector in 2020 and from 2021-2026 was reached. The agreement entails a structural shift in the Danish National Building Fund's support system containing a new green support criterion, a new green guarantee and a trial scheme for sustainable projects that will improve the energy efficiency of buildings in the social housing sector.

In June 2020, the Danish Climate Agreement for Energy and industry 2020 was reached. The agreement includes measures, which are expected to procure sizeable energy savings, which contributes to the fulfilment of the energy savings obligation. Policies include a substantial expansion and advancement of the subsidy scheme related to private enterprises, of the subsidy scheme related to residential buildings and the subsidy scheme to replace oil boilers with heat pumps in buildings outside the district heating and gas grids. Furthermore, the agreement includes funds for a focused energy efficiency effort in the period 2021-2030.
In December 2020, the political agreement A Green Transition of the Transport sector was reached. The agreement includes among other a reorganization of the current taxation of cars so that users have a greater incentive to choose electric cars over conventional fossil fuel technology.

In December 2020, an agreement on the state budget law for 2021 and on Stimuli and Green Recovery was reached. Along with other initiatives funds from 2021 and forward for a subsidy scheme, that provides subsidies to energy efficiency in regional and municipal buildings, incl. renovations, conversions from oil and gas boilers to heat pumps or district heating and digital solutions are allocated.

In December 2020 and again in June 2022, an agreement on a Green Tax reform was reached, which includes an increase in energy taxation on business energy consumption for process purposes. Inhere there are also allocated further funds for the for the competitive subsidy scheme related to private enterprises. With the agreement in 2022, it was agreed that energy taxes should be restructured to reflect CO_2-emissions. Starting 2025 and fully phased in by 2030, a tax will be set directly targeting CO_2-emissions, which by 2030 will cost DKK 750 per tonnes of CO_2 for non-ETS businesses and DKK 375 per tonnes of CO_2 for ETS businesses, excepting businesses with mineralogical processes – these businesses will pay a tax of DKK 125 per tonnes of CO_2 emitted in 2030.

With the political agreements on Winter Help (2022) and Inflation Help (2023), budget law for 2024, and the agreement on Partial Disbursement of Green Fund 2024, further funds have been added to existing measures, among others those targeting conversions from oil and gas boilers to heat pumps or district heating, and those supporting the rollout of district heating and decoupling from the gas grid.

In March 2023, with the agreement for a new kilometre-based toll for trucks and with a higher tax on diesel consumption included in the political agreement Partial Disbursement of Green Fund 2024, further savings in the transport sector is also expected. Both will be phased in from 2025 onwards.

In June 2024, the government announced a *Roadmap for energy efficiency*, by which the government has taken the initial step towards a new understanding of energy efficiency to be used as the starting point when the future framework for energy efficiency is to be discussed with the industry and the parliament. A pillar in the roadmap is that energy consumption must match energy production. This means, that the green energy must be used when it is in abundance, e.g. when the wind blows and the sun shines. Conversely, consumption must be able to be reduced when green energy is lacking. The goal is that, with increased digitization and greater focus on flexibility, it should be able to run completely by itself.

In the coming years, more energy efficiency measures will be continuously implemented as a part of the roadmap. Among other things, there will soon be an announcement on excess heat, a supply plan is under way, and it is being clarified continuously how Denmark will implement the new requirements from the energy efficiency directive and the building directive. In addition, electrification of energy supply and demand will continue.

2.4.3.5.1.8 Stop for oil and gas extraction in the North Sea

In December 2020, a broad majority in the Danish Parliament reached a deal on the future of fossil extraction in the North Sea, which established a final phase-out date of fossil extraction by 2050 and led to the cancellation of the 8th licensing round and all future tender rounds to extract oil and gas. The deal also included a reduction of the area where oil and gas exploration and production is allowed in Denmark to the western most part of the Danish North Sea.

The agreement sets the direction towards a climate neutral Denmark and a complete phase-out of fossil fuel production by 2050, while simultaneously confirming the remaining regulatory framework to ensure stability and clear line of sight for the industry and safeguard employment in the impacted regions.

The main elements of the agreement includes the following:

- A 2050 cutoff date for all oil and gas extraction.
- A cancellation of the 8th licensing round and all future licensing rounds.
- A reduction of the area for oil and gas extraction to the western most part of the North Sea.
- Explore the possibilities of electrification of the oil and gas facilities offshore.
- A commitment to lead a global campaign on the role of fossil fuel producing countries.
- A just transition initiative in the affected region to ensure development and employment.
- Confirming the remaining regulatory framework to ensure stability, including access to two other existing licensing schemes. However any such permits would still have to adhere to the 2050 end date and can not be initiated by the government with a call for tender.
- An initiative to explore the potential of carbon capture and storage, using old oil and gas wells. DKK 200 million were allocated with the agreement through the "Energy Technology Development and Demonstration Program" (EUDP) for the development and demonstration of CO_2 storage in the North Sea.

Table 2.4(15) Measures in the energy sector (See also specific energy measures in Table 2.4(16) [4.17] (Business), 2.4(17) [4.18] (Households) and 2.4(18) [4.19] (Transport))

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
2-EN-01: EU-CO2-emission trading scheme for electricity and district heat production and certain industrial processes (incl. Business) and aviation from 2012 (EU ETS). From 2024 EU ETS also covers the maritime sector and from 2025 ETS2-sectors including buildings, road transport and additional sectors.	A key instrument for reaching the goals for emission reductions is the EU Emission Trading Scheme (EU ETS), a cap and trade based CO2 allowance scheme for energy production and energy-intensive industries. The EU Member States progress with this trading scheme for greenhouse gas emissions in order to fulfil the international climate commitments set out in the Kyoto Protocol and Paris agreement, aiming to reduce CO2 emissions from covered installations and flights. The installations subject to EU ETS covers about half of Danish emissions of greenhouse gases. Statutory and administrative basis for the scheme have been established. Allowances prices have particular significance for Danish emissions as they affect the need to initiate other mitigation initiatives. Introducing the Marked Stability Reserve has had major impact on price levels thus supporting national efforts. Efforts to further increase the level of ambition in EU climate policy are key in the Danish government's climate change policy to achieve ambitious national targets. The legislative framework of the EU ETS (2021-2030) was revised in 2018 and 2023 to enable it to achieve the EU's 2030 emission reduction targets. From 2024 EU ETS also covers the maritime sector and from 2025 ETS2-sectors including buildings, road transport and additional sectors. The effects shown are for the ETS2 only.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 1_05: Reduction of losses, 1_06: Efficiency improvement in the energy and transformation sector, 3_23: Reduce emissions from international air or maritime transport, 4_27: Improved control of manufacturing	Regulatory, Economic instrument	Implemented	Energy, Transport, Industrial processes and product use	CO2	2005	The Danish Energy Agency	NA	400
2-EN-02: Biomass Agreement (Agreement on the use of biomass in electricity production)	In 2022, biomass accounted for approximately 63 % of renewable-energy production, mostly in the form of wood pellets, wood chip, straw and biodegradable waste for incineration. In 2022 approximately 38 % of the biomass was imported, mainly in the form of wood pellets, wood chips, fire wood and biodegradable waste. The energy production from biomass has more than doubled since 1990, and the consumption has now stabilized.	1_01: Increase in renewable energy sources in the electricity sector	Economic, Other (Voluntary/negotiated agreements)	Implemented	Energy	CO2	1993	The Danish Energy Agency , Entities under the EU ETS	NE	NE
2-EN-03: Price supplement and subsidies for renewable energy production	The Danish state grants subsidies for renewable energy production from wind, solar and bio energy. From 2022 subsidies are financed on the Danish state budget and will replace the financing current Public Service Obligation (PSO) levied on domestic energy consumption which is being phased out. New RE installations in Denmark are primarily subsidised through tender based schemes where developers compete for a limited susidy budget. The different subsidy schemes contribute to increase the RE share in the Danish energy consumption.	1_01: Increase in renewable energy sources in the electricity sector	Economic	Implemented	Energy	CO2	2008	The Danish Energy Agency , Entities under the EU ETS	NE	NE
2-EN-04: Tenders for offshore wind turbines	In accordance with the 2012 Energy Agreement the two Offshore Wind Farms (OWFs) Horns Rev 3 (407 MW) and Kriegers Flak (604 MW) has been fully commissioned in August 2019 and September 2021. Furthermore, the nearshore wind farms from the 2012 Energy Agreement, Vesterhav Syd (170 MW) and Vesterhav Nord (180 MW) were fully commissioned in September 2024. In the 2018 Energy Agreement , it was decided to establish three new OWFs towards 2030. The first OWF, Thor Havvindmøllepark (1000 MW), has finalized the tender process and is expected fully commissioned in 2027. The second OWF, Hesselø Havvindmøllepark, is delayed due to challenging seabed but is expected fully commissioned in 2029 with a capacity between 800 – 1.200 MW. The agreeing parties of the 2020 Climate Agreement decided that the third OWF is a part of the coming Energy Island Bornholm. In the 2020 Climate Agreement, it was decided to establish two Energy Islands with connected OWFs. One in the North Sea (10 GW) and one in the Baltic Sea (2 GW) on Bornholm. The 2022 Additional Agreement for Energy Island Bornholm expanded the capacity for Energy Island Bornholm with an additional 1 GW to a total of 3 GW. The Energy Island Bornholm is expected fully commissioned in 2030 and the 3 GW of the North Sea Energy Island is expected fully commissioned in 2033. The 2020 Climate Agreement stipulates a long-term ambition of minimum 10 GW connected to the North Sea Energy Island. The Finance Act of 2022 further stipulated an additional tendering of 2 GW offshore wind energy. One of the 2 GW is placed at Energy Island Bornholm cf. the 2022 Additional Agreement for Energy Island Bornholm. The 2022 Climate Agreement decided additional tendering of minimum 4 GW offshore wind energy with commissioning prior 2030. Furthermore, the Danish Government has granted permits to establish Frederikshavn Havvindmøllepark and Aflandshage Havvindmøllepark with a total capacity of 72 MW. In May 2023, the Additional agreement on tender requirements for 6 GW OW and Energy Island Bornholm decided the tender requirements of 6 GW off-shore wind (OW) and 3 GW related to Energy Island Bornholm. The May 2023 agreement, furthermore allows overplanting and thus the potential for collectively 14 GW or more. The agreement enables that the tender process can begin, with the political aim of full commission of the collective 9 GW OW in 2030 and two years later for overplanting.	1_01: Increase in renewable energy sources in the electricity sector	Regulatory	Implemented	Energy	CO2	2013	The Danish Energy Agency , Entities under the EU ETS	NE	NE

Table 2.4(15) Measures in the energy sector (See also specific energy measures in Table 2.4(16) [4.17] (Business), 2.4(17) [4.18] (Households) and 2.4(18) [4.19] (Transport)) (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
2-EN-06: Energy development and demonstration	Danish support for new energy technologies has been comprehensive and relatively stable. The creation of a domestic market has given Danish companies a boost. This boost has enabled many companies to become international market leaders. . R&D activities include energy savings, more efficient energy conversion, renewable energy technologies and efforts within System Integration and Smart Energy. The Danish Energy Technology Development and Demonstration Programme (EUDP) was established in 2007 and since then the programme has supported more than 1000 projects with a total of DDK 5 billion. On average, 50% of the activities under the Programme are financed by the EUDP and hence the private investments in the supported projects are of the same size as the public support leading to approximately to DKK 10 billion in total investments. In 2018, the energy and climate research was strengthened with the 2018 Energy Agreement with the intention to phase in additional state funding going from 580m DKK in 2020 to a target of 1 billion DKK annually from 2024. The research funding will support Denmark's commitment to the international collaboration Mission Innovation. With a funding target of 1 billion DKK from 2024 onwards, Denmark further cements its long-term commitment to research, development and demonstration in the field of energy and climate.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 2_14: Demand management/reduction	Information	Implemented	Energy	CO2, CH4, N2O	2008	The Danish Energy Agency	NE	NE
2-EN-07: Liberalization of waste incineration plants	On June 16, 2020, the Danish Government and Parties representing a broad majority in the Danish Parliament entered into an agreement on a 'Climate plan for a green waste sector and a circular economy'. As a follow-up to this plan, a supply-based model for waste incineration in Denmark was adopted by a majority in the parliament in June 2023.	1_05: Reduction of losses, 5_31: Enhanced recycling	Regulatory	Adopted	Energy, Waste management	CO2, CH4, N2O	2025	The Danish Ministry of Climate, Energy and Utilities	IE	IE
2-EN-08: Phasing out fossil fuels and promoting locally based RE-heat by adjustment of requirements for district heating projects	The "social economy requirement" of district heating projects is adjusted in order to promote district heating projects based on RE-technologies and locally produced heating.	1_03: Switch to less carbon-intensive fuels, 1_06: Efficiency improvement in the energy and transformation sector	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-09: Establishment of two energy islands	A broad majority of the Danish Parliament agreed on 22 June 2020 to initiate the realization of two energy islands with a minimum capacity of 5 GW in 2030. The first of the energy islands will be located on Bornholm surrounded by a 2 GW offshore wind farm in the Baltic Sea. The other energy island is expected to be established as an artificial (or platform-based) island in the North Sea with a minimum capacity of 3 GW offshore wind and with the potential for expansion to 10 GW offshore wind at a later stage. On 29 August 2022, the parties behind the climate agreement decided to increase the capacity of the energy island on Bornholm to a minimum of 3 GW, with a connection of 2 GW to Germany and a 1.2 GW connection to Denmark. On 30 May 2023, the parties agreed on the framework for tendering 9 GW of offshore wind in Denmark, including the 3 GW of offshore wind around the energy island of Bornholm. 6 GW of offshore wind was tendered on 21 April 2024, while the tender of energy island Bornholm has not yet been determined. In addition, there is still no political agreement on the build-out of the energy island in the North Sea, including connections and capacities.	1_01: Increase in renewable energy sources in the electricity sector	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-10: Stop oil and gas extraction in the North Sea in 2050 and cancellation of 8th and future tender rounds	The stop for oil and gas extraction in the North Sea in 2050 and cancellation of 8th and future tender rounds for new licences for exploration and production of oil and gas as well as reducing the area for oil and gas extraction to the western part of the North Sea implies a cessation of all activities in 2050.	1_05: Reduction of losses	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-11(NEW): Green District Heating	In support of more choices of district heating as the heating solution where feasible, a total of 465 million DKK extra in 2024-2025 has been allocated as a partial disbursement of the Green Fund 2024 from April 2024. For the same purpose, additional DKK 150 million has been set aside with the Finance Act for 2024.	1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 1_06: Efficiency improvement in the energy and transformation sector,	Economic instrument	Adopted	Energy	CO2	2024	Ministry of Finance	50	20

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.

** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.5.1.9 Specific measures in the business sector (Fuel combustion in Manufacturing Industries and Construction, Commercial/Institutional and Agriculture, Forestry and Fisheries)

Energy use in the business sector covers energy use in Manufacturing Industries and Construction, Commercial/Institutional, Agriculture including Horticulture, Forestry and Fisheries (cf. the 2006 IPCC Guidelines for greenhouse gas inventories). In 2022, energy use in the business sector was responsible for 13.5% of Denmark's total greenhouse gas emissions (including LULUCF).

In 2022, the greenhouse gas emissions from energy use in the business sector decreased by approximately 41% from 9.6million tonnes CO_2 equivalents in 1990 to 5.6 million tonnes CO_2 equivalents in 2022. Energy efficiency improvements and energy savings are important reasons for the decrease.

According to the 2024 projection (CSO24), emissions from the business sector's energy use are expected to decrease to 3.4 million tonnes CO_2 equivalents in 2030. Here it should be noted that the global energy crisis resulted in an extraordinary low energy consumption in 2022 relative to previous years.

The on-going initiatives to reduce emissions from the business sector include promotion of energy savings and energy-efficiency improvements as well as conversion of energy production from fossil process energy to less CO_2 emitting fuels. Certain energy-intensive businesses are also subject to allowances regulation as a consequence of the EU Emission Trading Scheme (ETS).

Analyses have shown that there is a significant potential for profitable energy-efficiency improvements within the business sector, so improving energy efficiency is a vital area of action. These energy efficiency improvements in themselves, however, will have a limited impact on CO_2 emissions. In order to reach emissions reduction targets, initiatives aimed at fuel shift will be introduced.

The measures implemented in the business sector are shown in Table 2.4(16).
Industry is responsible for most of the sectors' emissions of CO_2. The emissions come mainly from energy-consuming activities in industry. Cement and brick production also contributes especially high levels of CO_2, due to the raw materials used.

The main instrument to reduce CO_2 emissions in energy-intensive industry is the EU's emission allowance scheme, covering about 80 industry installations.

Business and industry have introduced major energy efficiency improvements over the past 25 years. This is mainly due to a green tax package for the business sector, which was firstly introduced in 1995. The package contained a combination of taxes and discounts for energy intensive enterprises. The package led to a higher CO_2 tax and the introduction of a space-heating tax for businesses. In order to get the tax discount, the eligible energy intensive enterprises have to sign an agreement on energy efficiency with the Danish Energy Agency. With the political agreement on economic growth from 2013, the CO_2 tax on electricity in production process in the industry was abolished and the voluntary agreement scheme ended. Electricity production is thus included in the ETS. With a political agreement on economy growth from July 2014 it was decided to revive the voluntary agreement scheme to subsidize electro-intensive enterprises for their payment of electricity tax – the so called Public Service Obligation levy (PSO). The PSO scheme entered into force in September 2015, and was phased out in 2020 (cf. the phase-out of the PSO mentioned in Chapter 4.3.4.1.4). In a political agreement from 2020 "Klimaaftalen for energi og industry mv.", it was decided to incentivize usage of surplus heating from industrial processes for external purposes (e.g. district heating, industrial symbiosis). Thus, in 2021, a new voluntary scheme was introduced for businesses willing to make energy efficiency improvements in surplus heat used for external purposes. Businesses entering in to the scheme agrees to maintain ISO 50001:2018 with a focus on surplus heat and completing energy efficiency improvements related to surplus heat with a payback time less than five years. In return, the scheme subsidizes payment of the tax on externally used surplus heating. Currently, all surplus heating produced with other fuels than electricity is subject to taxation of 25 DKK/GJ (2018-priser). Participation in the scheme will lower the tax for externally delivered heat to 0 DKK/GJ.

Today businesses not included in the ETS are imposed the CO_2-tax on their fossil fuels for process and all businesses are imposed the CO_2-tax on their fossil fuels for space heating regardless whether the business is included in the ETS or not. Businesses pay an energy tax of DKK 8.1 per GJ on their fossil fuels used for process and an energy tax of DKK 68.8 per GJ on their fossil fuels for space heating (2024 tax rates). Some businesses, e.g. mineralogical and metallurgical processes, are exempt of the energy tax on their process and agriculture pay a lower rate than DKK 8.1 per GJ. VAT registered businesses in general pay a tax on electricity of DKK 0.004 per kWh. From 2021 the tax rate applies for

their electricity for space heating as well. Before 2021 the rate on their electricity for space heating was higher. With the agreement on a green tax reform in 2022 ("Aftale om Grøn skattereform for industry mv" of 24 June 2022), it was agreed that energy taxes should be restructured to reflect CO_2-emissions. In 2023, the energy tax was raised by DKK 4 per GJ and will be fully phased in by 2025, by whichtime the reform will have increased the tax by DKK 6 per GJ.

Starting 2025 and fully phased in by 2030, a tax will be set directly targeting CO_2-emissions, which by 2030 will cost DKK 750 for non-ETS businesses and DKK 375 for ETS businesses, excepting businesses with mineralogical processes. The latter will pay a tax of DKK 125 per ton CO_2 emitted in 2030.

As an element in the implementation of the 2012 energy policy agreement, a DKK 3.75 billion (in EUR 500 million) fund was established to subsidise industries to convert to renewable energy. As of August 2013, businesses have been able to get investment subsidy from this fund to convert from fossil fuel (i.e. coal, oil, gas) to renewable energy sources (i.e. biomass, solar, wind) or district heating in their production process. The subsidy also includes investments in energy-efficiency measures. The estimated effect of this "Renewables for industry" initiative is a reduction of 1 million tonnes of CO_2 per year from 2020 and onwards. As a result of a political agreement of November 2016, the scheme expired at the end of the 2016.

Large enterprises in Denmark are by law required to have a mandatory energy audit every fourth year, cf. paragraph 15 in law no. 296 of 17 March 2023 "lov om fremme af effektiv energianvendelse og drivhusgasreduktion". The law transposes the energy efficiency directive article 8. In implementing the former article 8, Denmark has defined "large enterprises" as enterprises that do not fall under the category of micro, small and medium-sized enterprises as defined in accordance with the Commission's recommendation 2003/361/EC of 6 May 2003. The definition of enterprises subject to mandatory energy audits will be revised in accordance with the new version of the Energy Efficiency Directive, to target instead enterprises with a high yearly energy consumption between 10-85 TJ. Enterprises with ISO 50.001 or ISO 14.001 are exempt. There is no requirement of implementing the energy saving proposals from the energy audits. Enterprises with yearly energy consumption over 85 TJ are subject to implement ISO 50.001 or ISO 14.001.

As part of a political agreement on economic growth from June 2014 a DKK 40 million (5.4 mio. EURO) fund was established to run a centre for energy savings in enterprises. The money was given for the period 2014-2017. The aim of the centre is to identify and exploit the energy efficiency potential already existing within primarily small and medium sized companies. The large companies are covered by the voluntary agrement scheme and the mandatory energy audit.

With a view to promote targeted energy savings, the energy efficiency obligation scheme expired by the end of 2020, and was replaced with a new subsidy scheme for energy efficiency improvements in businesses.

The 2018 Energy Agreement introduced a new scheme with subsidies for energy efficiency improvements in businesses from 2021-2024. The scheme was later prolonged with enhanced encouragements to make use of it. These funds will be limited to DKK 3.5 billion and there will be an individual subsidy cap. The scheme targets energy consumed in the delivery of services and manufacture of products – also known as "process energy". As per January 2023, the scheme now subsidizes investments that reduce CO_2 emissions as well as improve energy-efficiency.

Denmark's municipalities and regions own a total building mass of more than 36 million square metres. The energy efficient operation and renovation of these buildings holds great potential for reducing energy consumption. Therefore, the energy agreement allocates DKK 100 million annually in the period 2021-2024 for loans to finance energy renovations in buildings owned or operated by municipalities and regions.

The energy agreement allocates DKK 19 million in 2018, 33 million in 2019, 34 million in 2020, and 44 million annually from 2021-2024 for information activities relating to energy savings. This funding is also earmarked for the utilisation of data to promote energy efficiency.

Table 2.4(16) Measures in the business sector

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
3-BU-09: Mandatory Energy Audit for large Enterprises	Large enterprises in Denmark have by law for many years been required to have a mandatory energy audit every fourth year. The law is no. 345 of 8th of april 2014 "Lov om ændring af lov om fremme af besparelser i energiforbruget, lov om varmeforsyning, lov om kommunal fjernkølig og forskellige andre love". The law transposes the energy efficiency directive article 8. Denmark has defined large enterprise in accordance with the EU definitions saying that enterprises that do not fall under the category of micro, small and medium-sized enterprises, in accordance with the Commission's recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized. Enterprises with ISO 50,001 or ISO 14,001 are exempt. The deadline for the first energy audits was the 5th of December 2015 and afterwards every fourth year. The scope of the energy audit are buildings, processes and transport. There is no requirement of implementing the energy saving proposals from the energy audits. With the Green Tax Reform agreed in June 2022, the requirement for energy audits was extended to include climate audits. From juli 2024 the scope of requiredе enterprises changes from large enterprises to enterprises with energy consumption >10TJ/yearly for energy audits and >85 TJ/yearly for ISO 50001 energy management system. In addition, all enterprises are required to do a climate audit with focus on CO2-emissions.	2_13: Efficiency improvement in industrial end-use sectors	Regulatory	Implemented	Energy, Industrial processes and product use	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE
3-BU-11: Denmark's Export and Investment Fund (EIFO)	In 2022, the Danish Green Investment has been merged with Vaekstfonden and EKF Denmark's Export Credit Agency into Denmark's Export and Investment Fund (EIFO). The new fond still provides loan capital to invest in various projects facilitating a sustainable development of society. The fund is able to grant loans to all types of privately-held companies and non-profit housing associations as well as public companies and institutions, whose budgets are seperate from the state, the regions and the municipalities. The activities of the fund will have a positive environmental effect due to e.g. environmental savings, increased production of renewable energy sources, more resource-efficient utility of water and materials or better waste recycling.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 2_10: Efficiency improvements of buildings, 2_13: Efficiency improvement in industrial end-use sectors, 3_18: Low carbon fuels, 3_19: Electric road transport, 4_27: Improved control of manufacturing, 5_31: Enhanced recycling	Economic	Implemented	Energy, Transport, Industrial processes and product use, Waste management	CO2, CH4, N2O	2022	Ministry of Industry, Business and Financial Affairs	NA	200
3-BU-13: Obligation for energy savings in government buildings	The circular require state institutions to: 1) Commit to two different energysavings targets (reduction of 42.480 MWh from 2021-2030 for buildings that are owned and used by the central government (e.i. EED art. 5) and 10 pct. reductions from 2021-2030 for the buildings that is not included in the EED art. 5 target, 2) Focus on energy efficiency in their behaviour 3) Buy energy efficient products 4) Operate state buildings in an energy efficient manner 5) Report the anual comsumption of energy and water to a public database, 6) Every ministry is required to develop an energy-effiencyplan on how they will reach to the target savings 7) Map all oilburners and gasfurnances in the buildings that are included in the circular.	2_10: Efficiency improvements of buildings	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
3-BU-14: Competitive subsidy scheme related to private enterprises	The subsidy scheme targets energy efficiency initiatives and the switch from fossil to renewable energy use in industry. Thus, the initiative will speed up energy efficiency measures and transition to green energy in industry, and lead to a reduction in greenhouse gas emissions. In total, 3.3 billion DKK is allocated to the scheme in the period 2020-2029.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	100	300
3-BU-15: Subsidy scheme for energy renovations in public buildings (municipalities and regions)	The Danish Government has established a subsidy scheme targeting energy renovations in public buildings of DKK 150 million annually in 2021 and DKK 145 million in 2022 (incl. administrative costs). The subsidy targeted energy renovations in regional and municipal buildings with the lowest energy labels as well as the buildings that are heated by oil burners and gas furnaces. It is currently estimated that the effort can reduce greenhouse gas emissions by [0.004] million tonnes CO2 eq. in 2025 and 2030.	2_10: Efficiency improvements of buildings	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Energy Agency	NE	NE
3-BU-16: Targeted support for horticulture	The horticulture/green houses have good opportunities to transition away from fossil fuels, for example by converting to electric heat pumps, biomass, or district heating. However, their general competitive situation makes it difficult to bear the full economic cost of switching to renewable energy and a high CO2 tax is expected to result in reduced production, rather than transition to renewable energy. Therefore, there will be allocated funds to support the transition of the horticulture/greenhouses in 2025-2029.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2	2023	The Danish Ministry of Climate, Energy and Utilities	NE	NE

Table 2.4(16) Measures in business sector (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
3-BU-17: Energy efficiency efforts	The Danish Government has several energy efficiency efforts: - Buildings need an energy label after construction and on sale/rental. The label uses data and digital validation to improve accuracy. A new report layout was created in 2021 to improve user-friendliness, relevance, and actionable recommendations. - Denmark requires energy labels and plans for public buildings over 250m^2 every 10 years, and display them in a prominent place. A new regulation from 2021 aims to reduce energy consumption in central governmental buildings through renovations and behavioral measures. - Denmark has a national energy-labelling scheme for windows. The government offers a subsidy scheme for energy efficiency measures such as insulation, ventilation, and heat pumps. - DEA promotes energy-efficient behavior and solutions for households, businesses, and the public sector. They provide free advice, webinars, and local meetings to promote energy efficiency and the use of renewable energy sources. - Provides information and tools to craftsmen and educational institutions to promote energy efficiency. They also offer courses for craftsmen and collaborate with labor market training centers. –In 2020, a subsidy scheme was introduced for the company providing the subscription. - "Better Houses" promote energy renovation of buildings by providing a "one stop shop" service for homeowners, where they can contact one certified building contractor for overall counseling. Skilled craftsmen are educated to be advisors on energy renovation. - Denmark notified a long-term renovation strategy (LTRS) to support building stock renovation, including non-binding milestones for 2030, 2040 and 2050. The strategy outlines initiatives to promote energy efficiency in buildings.	2_10: Efficiency improvements of buildings, 2_11: Efficiency improvement of appliances, 1_06: Efficiency improvement in the energy and transformation sector	Economic	Adopted	Energy	CO2	2022	The Danish Ministry of Climate, Energy and Utilities	NE	NE
3-BU-19: Green reinsurance facility in EKF - now Denmark´s Export and Investment Fund	Green reinsurance facility in EKF - now Denmark´s Export and Investment Fund (new).	8_57: Member States shall provide a brief description of the objective.	Economic	Adopted	8: Other sectors	CO2	2023	Ministry of Industry, Business and Financial Affairs	NE	NE
3-BU-20: Green capital injection in Vaekstfonden - now Denmark´s Export and Investment Fund	Green capital injection in Vaekstfonden - now Denmark´s Export and Investment Fund (new).	8_57: Member States shall provide a brief description of the objective.	Economic	Adopted	8: Other sectors	CO2	2023	Ministry of Industry, Business and Financial Affairs	NE	NE
3-BU-21: Subsidy scheme related to CO2-intensive enterprises. The scheme will partly subsidize the investment cost in projects that will lead to a decrease in CO2 emissions	The subsidy scheme targets decarbonization in industry. Thus, the initiative will lead to a reduction in greenhouse gas emissions. In total 900 million DKK is allocated to the scheme in the period 2025-2029.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2025	The Danish Energy Agency	NE	NE
3-BU-22: Competitive subsidy scheme related to CO2-intensive enterprises. The scheme will subsidize entreprises experiencing increased operating costs due to decarbonization requirements	The scheme will subsidize entreprises experiencing increased operating costs due to decarbonization. Thus, the initiative will lead to a reduction in greenhouse gas emissions. In total 1 billion DKK is allocated to the scheme in the period 2025-2034.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2025	The Danish Energy Agency	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.5.1.10 Specific measures in the transport sector

In 2022, the transport sector was responsible for 28.9% of Denmark's total greenhouse gas emissions. The emissions from the transport sector are primarily CO_2 with a share of 98.9% of the transport sector's total greenhouse gas emissions. Nitrous oxide makes up approximately 1.0% and methane about 0.1%. The transport sector's greenhouse gas emissions peaked in 2007. The baseline scenario from 2024 (CSO24) predicts the sectors overall greenhouse gas emissions to decrease by 44% from 2007 to 2030. In 2022, the road transport was accountable for 93.6% of the sectors national emissions.

Table 2.4(17) shows the existing policies and measures within the transport sector.

The speed of the transition to electrified vehicles has increased over recent years due to the technical improvements of the EV-cars, the reduction in purchase price as well as political action. The national measures for the transport sector aims at creating the right incentives structures as well as planning for and funding charging infrastructure on the state road network and make available the regulatory framework for a proper charging infrastructure overall.

The registration tax and the annual tax (the green owner tax), which is dependent on the energy efficiency of the vehicle as well as fuel taxes, are assessed to have had considerable effects on CO_2 emissions. With *Aftale om grøn omstilling af vejtransporten* (Agreement on green transition of the road transport) it was among other things decided to rearrange the registration tax, so it further promotes the uptake of low and zero emission cars. Further information on taxes is included in chapter 2.4.3.3.

Regarding charging infrastructure, EUR 43 million have been set aside from 2020-2022 to co-fund charging infrastructure projects at housing associations as well as on private and municipal areas. Furthermore, with Infrastrukturplan 2035 (Infrastructureplan 2035), there was allocated EUR 67 million in the period 2022-2030 to the roll out of charging infrastructure along state roads.

By April 2024, the European Parliament and the European Council adopted a regulation on the deployment of infrastructure for alternative fuels (AFIR). In relation to this an amendment to the Danish law on alternative fuels infrastructure for transport was adopted and entered into force on 13 April 2024. The law has been adjusted in accordance with AFIR.

As a part of Infrastrukturplan 2035 (Infrastructureplan 2035), it was decided to set aside EUR 37 million for alternative fuels infrastructure for heavy duty vehicles. More funding has been prioritized, so that in total approximately EUR 100 million have been allocated to the deployment of 25 recharging stations along the TEN-T road network in Denmark. A plan for the roll out of the 25 stations have been adopted which ensures that Denmark will live up to the obligations regarding recharging stations aimed at heavy-duty vehicles in the AFIR.

A kilometre based and CO_2-differentiated toll for heavy-duty vehicles is to be launch from January 2025. To begin with, the new toll applies to sections of the road network which covers 10.900 km. From 2028 onwards, the toll will be extended to all public roads in Denmark. The average toll in 2030 will be EUR 0.17 per kilometre, while zero emission vehicles will get a substantial lower rate. The political decision on the toll in Aftale om kilometerbaseret vejafgift for lastbiler (Agreement on kilometre based toll for heavy-duty vehicles), is combined with a reform of the weight and dimension regulation for heavy duty vehicles.

To reduce the use of diesel the exercise tax on diesel will be increase by DKK 0,5 per litre. In order to compensate car owners, the half-yearly tax on owning a diesel car (Udligningsafgiften) will be reduced. Heavy-duty trucks are compensated in the short run by a reduction of 19 and 12 percent in the road toll in 2025-2027 and 2028, respectively. Additionally, a fund of DKK 750 million has been adopted which can support investment in zero emission vehicles and political initiatives that increase the allowed weight and dimension of heavy-duty vehicles. The fund will be allocated in the period 2024-2030. When it comes to rail projects, the political parties behind *Infrastrukturplan 2035* agreed that train traffic in Denmark should be CO_2-neutral. The political parties allocated EUR 154.1 million (DKK 1149.9 million in 2024 prices) for the purchase of four battery electric trains and charging infrastructure for the trains. Furthermore, EUR 40.0 million (DKK 1149.9 million in 2024 prices) were set aside for grants to support charging infrastructure along private railways.

Going forward, initiatives will be prioritized in those subsectors that are more challenging to decarbonise such as aviation, shipping and heavy-duty road transport. For the aviation and shipping sectors, it is expected that especially renewable fuels such as renewable fuels of non-biological origin will contribute to the reduction of greenhouse gas emissions.

Table 2.4(17) Measures in the transport sector

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
4-TR-01a: EU demands on vehicle manufactures to deliver fuel efficient cars and vans, and as of 2035, a total stop for sales of new fossil fulled passenger cars and vans .	The EU's requirements on average CO2 emissions for passenger cars and vans, i.e. the mechanism imposing fines on manufacturers if they fail to comply with the CO2 targets.	3_16: Efficiency improvements of vehicles	Regulatory	Implemented	Transport	CO2	2000	The European Commission	NE	150
4-TR-07: Spatial planning	Spatial planning on state, regional and local level is also taking into account the objective to limit the growth in demand for passenger and freight transport and thereby reduce the number of vehicle kilometres driven and GHGs emitted. For example, spatial planning, in terms of urbanization and increased focus on minimising distances between residential areas/city centres and stations, help to reduce the need for transport.	3_18: Low carbon fuels, 3_19: Electric road transport, 3_20: Demand management/reduction, 3_22: Improved transport infrastructure	Regulatory	Implemented	Transport	CO2	2000	Municipalities	NE	NE
4-TR-10: Electrification of parts of the rail infrastructure	The entire danish railnetwork will be electrified with catenary lines or battery trains. BANEDANMARK is still in the process of electrifying. The last track to be electrified with catenary lines will be ready for commissioning by the end of 2028 – i.e. full implementation by 2029. The exact rollout of battery trains awaits an analysis.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2013	Ministry of Transport	NE	NE
4-TR-12: Investment in a tunnel under the Fehmarn Belt	The tunnel under the Fehmarn Belt will reduce CO2-emissions by potentially 200.000 tonnes per year. This is mainly because of the following effects: 1.Goods will shift from road to rail. 2. The travel distance from Copenhagen to Hamburg will be shortened. 3.The ferries between Rødby and Puttgarden is expected to cease operation. 4. The railway between Ringsted and Lübeck is electrified.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2029	Ministry of Transport	NE	NE
4-TR-13: Use of climate-friendly asphalt for all wear layer replacements on the state road network in 2020.	Use of climate-friendly asphalt for all wear layer replacements on the state road network. The climate-friendly asphalt reduces the resistance between the tire and the road which leads to a reduction in fuel consumtion leading to a reduction in CO2-emissions.	3_22: Improved transport infrastructure	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-16: Allocated funds of DKK 250 million for green buses and green vehicles for demand responsive transport.	DKK 250 million is allocated for green buses and demand responsive transport in the annual budget from 2022-2026. Each year DKK 50 million will be given to the aplicants of the funds. The parties have agreed on the annual budget decided to allocate the first DKK 50 million to busses on regional routes.	3_19: Electric road transport	Economic	Implemented	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-17: Requirements to promote green taxis (Energy and environmental requirements for taxis)	Of 1st January 2021 the energy and environmental requirements for taxies are tightened and new taxies (passenger car size) have to meet A++ requirements to be able to be a part of the industry.	3_18: Low carbon fuels, 3_19: Electric road transport	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-19: Implementation of pool for green transport in 2020 (DKK 75 million)	DKK 75 million was allocated in 2020 to extension of charging infrastructure and green transition of commercial transport.	3_18: Low carbon fuels, 3_19: Electric road transport	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-21: Advancing and increasing the existing pool for green transport	An existing subsidy scheme for green transition of transport was increased with DKK 50 million to a total of DKK 475 million which was advanced to 2021. The funds were allocated to the transition of ferries, extension of charging infrastructure and transition of commercial transport.	3_18: Low carbon fuels, 3_19: Electric road transport	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-22: CO2 displacement requirements for RE fuels	"CO2 displacement" in relation to transport means well-to-wheel greenhouse gas reduction. A part of a political agreement from 2020 regarding the transport sector is to replace the current blending mandate with an obligation to reduce GHG intensity of fuels on a well-to-wheel basis. The new scheme is based on a technological neutral regulation, which promotes the use of RE-fuels with low GHG-intensity including new fuels such as Power-to-X based fuels. The obligation to reduce the GHG intensity of fuels is phased in from 3,4 % in 2022-2024 increasing to 5,2 % in 2025, 6 % in 2028 and 7 % in 2030. The target is estimated to reduce the CO2-emission by 0,7 mio. ton in 2025 and 1,4 mio. ton by 2030.	3_18: Low carbon fuels	Regulatory	Implemented	Transport	CO2	2022	The Danish Ministry of Climate, Energy and Utilities	600	1300

Table 2.4(17) Measures in transport sector (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
4-TR-23: Allocated funds for green transport – The ferry subsidy scheme to support the green conversion of domestic ferries 2021-2022	A subsidy scheme of total DKK 285 million in 2021-2022 for green transition of ferries was agreed upon in two political agreement in the spring/summer of 2021. The fund was allocated to the transition of ferries. Grants could be applied for the acquisition or leasing of new green ferries or for the retrofit of existing ferries. The grant also included any investments in necessary port adaptations.	3_18: Low carbon fuels, 3_19: Electric road transport, 3_22: Improved transport infrastructure	Regulatory, Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-25: Climate-friendly cooperation agreements on green public transport	Since June 2020 the Minister for Transport has agreed with municipalities and regions on "Climate-cooperation agreements on green public transport". With the agreement municipalities and regions are obliged to buy CO2-neutral or zero-emission busses whenever their old (diesel)busses needs to be replaced.	3_19: Electric road transport	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-26: Government subsidy for the purchase of four battery trains and charging infrastructure for battery trains in Holstebro and Skjern	DKK 230 mio. (2021-prices) was allocated for the purchase of four battery trains. The line between Holstebro and Skjern will be the first line with battery train operation in Denmark from 2025. The investment provides the opportunity to gain the necessry experience with battery train operation prior to the roll-out of battery train on other lines.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2023 (purchase) and 2025 (effect)	Ministry of Transport	NE	NE
4-TR-27: Funds have been set aside for a green mobility model, where the traffic models that form the basis of decisions in the transport area are further developed, cf. agreement on IP35	DKK 6 million annually from 2022 to 2035 allocated for a green mobility model. The funding will support a further developement of traffic models that form the basis of decisions in the transport area.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-28: Funds to improve cycling facilities along the state road network, cf. agreement on IP35	DKK 3 billion for construction and improvement of bike lanes, as well as development and analysis for advancing and promoting cycling infrastructure.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-29: Plan and funds (approximately 100 mio. euro) for the establishment of 25 recharging stations for heavy vehicles, cf. agreement on IP35	A total allocation of DKK 763 million (2024-prices) towards the deployment of 25 recharging stations along the TEN-T road network in Denmark. A plan for the roll out of the 25 stations have been adopted which ensures that Denmark will live up to the AFI-regulation with regards to recharging stations aimed at heavy duty vehicles.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-30: Funds for advisory center for bicycle promotion.	DKK 4 million for advisory center for bicycle promotion. The advisory center will provide companies with advice on how to promote cycling, as well as provide advice in which ways electric bikes can partly cover the transport of goods.	3_22: Improved transport infrastructure, 3_17: Modal shift to public transport or non-motorized transport	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-31: Funds for the promotion of infrastructure for cycling, cf. agreement on Green transformation of road transport 2020.	DKK 10 million in 2024 for publicly accessible charging facilities for electric bikes. The initiative is financed by the Danish takeover of the EU's recovery facility.	3_22: Improved transport infrastructure, 3_17: Modal shift to public transport or non-motorized transport	Economic	Adopted	Transport	CO2	2024	Ministry of Transport	NE	NE
4-TR-32: Subsidy for charging infrastructure for battery trains on the private railway lines.	A subsidy scheme of total DKK 275 million in 2025-2035 for charging infrastructure for battery trains on private railway lines was agreed on in September 2022. A region can get up to 65 per cent of the establishing cost covered per railway line.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2025	Ministry of Transport	NE	NE
4-TR-33: Funds for the devlopment of charging infrastructure for light duty vehicles, Infrastructure Plan 2035	Investments of DKK 500 million in charging infrastructure along the state road network in the periode 2022-2030. The funds will secure a high level of service for charging on longer car trips along the national road network.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-34: Port subsidy scheme to support establishment of e.g. wharves, piers, road infrastructure at the port and on shore power supply, cf. agreement on Infrastructure Plan 2035 (IP35)	50 mio. DKK allocated to a port subsidy scheme to support the establishment of e.g. wharves, piers, road infrastructure at the port and on shore power supply	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-35: Port and Fishing subsidy scheme to promote a green transition of ports and transition efforts within fishing and related ancillary industries.	25 mio. DKK allocated for a port and fishery subsidy scheme to help support a green transition of ports and transition efforts in the fishing industry and related secondary industries	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-36: CO2-neutral charging infrastructure on the state railways	DKK 750 mio. (2021-prices) was allocated for the establishment of the necessary charging infrasturcture for battery train operation on the state railway lines that are not planned to be fully electrified. The charging infrastructure on the first line is expected to be ready for battery train operation around 2025.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2021 (funds) and around 2030 (effects)	Ministry of Transport	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.

** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.5.1.11 Specific measures in the residential sector

In 2022, the residential/household sector contributed to Denmark's total national greenhouse gas emissions with 1.2 million tonnes of CO_2 equivalents, corresponding to a share of 2.8%. The residential sector in the greenhouse gas inventory only includes CO_2 emissions from burning of oil and natural gas since emissions from production of electricity and district heating used by households are attributed to the plants where the electricity and heat is produced.

In this section, measures addressing all types of energy consumption in the household sector are described, although some of the energy savings will result in emission reductions in the energy production sector.

In 2022, consumption of energy by households, including electricity and district heating, was responsible for around 29% of the total final energy consumption in Denmark.

The major part of energy consumption in households is used for space heating - 83% in 2022. District heating constituted 48% of household energy consumption for heating in 2021. When district heating is produced at CHP plants or with renewable energy, there are big CO_2 savings overall from the use of district heating instead of individual heating based on, for example, oil-fired boilers.

Oil consumption for heating is 4% of household energy consumption in 2021. According to Climate Status and Outlook 2024, oil is expected to amount to 1% of final energy consumption for heating in 2030, as it was assumed in Climate Projection 2024, that recent decades' phase-out of oil consumption for heating continues.

In Climate Status and Outlook 2024 (CSO24), it is estimated that the greenhouse gas emissions in the electricity and heating sector in Denmark in 2030 will be very limited, as a result of the expansion of renewable energy and the overall green transformation of Denmark's energy system. From 2029, the production of green gas is estimated to exceed the total Danish consumption of piped gas, whereby according to projections there will be no emissions associated with gas consumption from 2029. Consequently CO_2 reductions are limited by reducing either electricity or district heating - or gas consumption after 2030.

Up to 2004, households changed to gas in particular, but from 2004 onwards the change is more to wood pellets in particular. Up to 2030, the consumption of oil, gas and wood pellets is expected to fall. The falling consumption of wood pellets and fossil fuels will be offset by an increasing contribution from heat pumps and district heating.

Households' disposal of waste also contributes to emissions of methane from landfill sites.

The action being taken on households' waste and transport consumption is described in the sections on waste and transport. This section therefore concentrates on the possibilities of reducing the CO_2 emissions through savings in electricity and heating in households and the possibilities for conversion to more environment-friendly forms of heating. The possibilities for reduction in the public energy supply system are described in the section on the energy sector.

In 2022, the final energy consumption in the household sector was 140 PJ for space heating and hot water (climate-corrected) and 27.7 PJ of electricity for appliances, etc. Please note that the global energy crisis resulted in an extraordinay low energy consumption in 2022 relative to previous years. Except for in 2022 consumption for heating has fluctuated around a certain constant level for 10 years, in spite of an increase in the number of households and in the area heated.

Despite a rising number of electrical appliances, the associated electricity consumption has remained at a quite constant level over the past 15 years. This is because electrical appliances have become more efficient, partly because of the EU Ecodesign Directive and the Energy Labelling Directive.

Several political agreements include initiatives ensure that renewable energy output in Denmark matches the country's total electricity consumption by 2030 among others *Sub-agreement on Investments in a continuously greener Denmark* and *Supplementary agreement on energy island Bornholm 2022*.

With a view to reducing energy consumption and environmental impacts from the household sector, a wide range of initiatives have been launched, as described in Table 2.4(19) in order to promote:

- Electricity savings,
- Savings in energy consumption in space heating, and

- Fuel conversion (from the use of oil and gas to district heating and the use of renewable energy).

Several concrete measures and incentives already implemented are described below.

Energy taxes
All energy consumption for space heating as well as other energy consumption in households and the public sector, as well as non-VAT-registered businesses is subject to energy taxes. Throughout the 1990s CO_2 and energy taxes have steadily increased, but since 2002 they have been almost stable. The CO_2 tax was increased in 2010 by more than 50 pct. The increases have mainly affected households, helping to reduce their energy consumption.

As expanding infrastructure powered by renewable energy will be a key component in Denmark's successful green transition, the 2018 Energy Agreement included initiatives with a view to reducing taxes on electricity and restructure the rules on surplus heat utilisation. The rules for surplus heat has been simplified. As surplus heat often is boosted with electric heat pumps, the reduced rates on electricity has lowered the taxes on utilisation of surplus heat considerably. Further reductions of tax on electrical heating have been adopted with the 2020 Climate Agreement for energy and industry as well as increases of energy tax on fossil fuels for space heating. To implement incitements to change to green energy and to meet the high energy prices several agreements reducing the electricity tax on other electricity than electrical heating was implemented in 2022.

Increased electrification is essential to harnessing the full potential of green energy, and will enable the integration of fluctuating outputs of wind and solar energy into our energy system. Green electricity can be converted into heat and channelled through district heating systems or into large-scale heat storage facilities – ensuring a flexible energy system and optimum utilisation of green electricity.

Electrification of the energy system is thereby a cornerstone of the green transition.

Despite a steadily growing supply of green electricity, the taxes on electricity for households in Denmark remain very high. High taxes on electricity constrain the use of electricity by Danes, causing significant socioeconomic losses. To address this problem, tax on electrical heating was reduced from 0.155 DKK/kWh to 0.004 DKK/kWh for industries and to 0.008 DKK/kWh for households in 2021 in accordance with the EU minimum tax rates as part of the 2020 Climate Agreement. Furthermore several agreements reducing the electricity tax on other electricity than electrical heating was implemented in 2022. In response to the elevated energy prices in 2022 and 2023, the tax on other electricity were reduced to the minimum level mandated by the European Union for the initial six months of 2023. Subsequent to the period, the taxes were reinstated reamning persistently below those of prior years. The electricity tax is further described in chapter 2.4.3.3.

The lower taxrates are expected to increase electricity consumption. However, the renewable energy output in Denmark is expected to match the country's total electricity consumption by 2030. Electrical heat pumps are furthermore expected to replace heating based on fossil fuels and biomass. A working group will be tasked with exploring electricity tariffs and related issues, including the conditions for certain groups of electricity customers and whether tariffs can be billed in a different and better way. The possibility of a dynamic electricity tax will also be explored. The tax reductions will equate to lower electricity bills, thus improving the productivity of businesses and the welfare of individual households.

CO_2 taxes
Some of the energy consumption in households is subject to CO_2 taxes. The CO_2 tax is further described in chapter 2.4.3.3.

Minimum energy requirements for buildings
Denmark has a long experience with energy efficiency and energy savings in buildings. From 1990 to 2021 final energy consumption for space heating has been reduced by 24.5% per m^2.

All new buildings must, according to the Danish building code, be constructed as nearly zero-energy buildings (NZEB). Strict and progressively tightened building regulations since 1977 have ensured a stable demand for energy-efficient building technologies.

Most new buildings shall, according to the Danish Building Code, declare the total CO_2-eq emission from the lifecycle of the building, according to EN 15978. The obligatory modules are A1-A3, B4, B6, C3, C4 and D. Buildings larger than 1000 m^2 shall in addition to this also live up to a limit value of 12 kg CO_2-eq/m^2 per year using the same modules, except for D.

Energy labelling of buildings when built, sold or rented

Energy labelling of buildings must be implemented after finishing the construction of a building and on the sale or rental of the building.

The purpose of the energy labeling scheme for buildings is to promote energy savings by making the need for energy and the possibilities for energy renovation of buildings visible. Energy renovation reduces i.a. energy costs and can at the same time provide a better indoor climate in the buildings. The energy label is based on a physical review of the building, where a certified energy labeling company collects information about the building. As part of the Climate Agreement for energy and industry from 2020, emphasis is placed on the use of data to improve the quality of the energy label. The energy labeling scheme thus uses automatic digital validations in the electronic calculation programs so that the energy labeling company's registrations are already assessed before the energy label is issued to the building owner. The validations are developed on the basis of experience from previous energy labeling reports, which were found using Denmark's energy labeling database.

In 2023, approximately 75,000 energy labeling reports have been prepared and they cover approximately 106,000 buildings. In total, approximately 182,000 profitable energy saving proposals have been indicated in the reported energy labels. To support the energy labels and the savings proposals, a new report layout for the energy labeling reports has been prepared in 2021. The new energy labeling reports have been developed in collaboration with behavioral scientists with a focus on building owners being encouraged to a greater extent to carry out energy renovation of their buildings.

Regular energy labelling of public buildings and display of EPC

The Energy Performing Certificate (EPC) consist of an energy label and an energy plan. For publicly owned buildings over 250 m^2 the EPC must be prepared regularly every ten years. Furthermore all large buildings over 600 m^2 which are frequently visited by the public must display the EPC in a prominent place clearly visible to the public.

Denmark has implemented a new administrative regulation from 1 January 2021, which entails requirements for further reducing energy consumption in the period 2021-2030 in central governmental buildings. Energy savings will among others be obtained through energy renovations and behavioral measures.

Minimum energy requirements and energy labelling of appliances

The Danish Energy Agency has a national energy-labelling scheme for façade windows. A large majority of suppliers adhere to the scheme.

Danish authorities play an active role both in negotiation of compulsory EC requirements and in securing awareness of and compliance with these, including through information on the agency's website. In general, the effect of EC product regulation is accounted for elsewhere.

Subsidy scheme related to buildings

The Subsidy scheme related to residential buildings is an application-based subsidy scheme, wherein private citizens can apply for grants subsidizing the installation of an electric heat pump when converting from gas-, oil- or pellet boilers or electrical heating. The scheme furthermore offers grants for general energy efficiency measures such as insulation, ventilation and energy efficient windows. Subsidies can be allocated to owners of buildings who have renovated their buildings in accordance with a specific list of energy savings belonging to the subsidy scheme.

The first application round for the scheme was held in 2020, with full disbursement of funds each year since. From 2023, the scheme was divided into two separate schemes, focusing on heat pumps and energy efficiency measures respectively. A total of 2.6 billion DKK has been allotted the scheme, including the two new separate schemes, during the years 2020-2026.

Information initiative towards private households

The Danish Energy Agency carries out efforts to promote energy-efficient behavior and energy-efficient solutions. The information efforts focus on both private households, business and the public sector.

Energy efficiency of buildings and support for energy efficient behavior in buildings is a central priority in the Danish information effort. The efforts includes the preparation of material on energy-efficient solutions, information on building regulations and easy access to information and knowledge on energy renovation. The Danish Energy Agency's website www.SparEnergi.dk and associated social media are the backbone of the agency's communication about energy-efficient solutions both in private households and in public and private companies.

Since 2016, private households have been able to get free, unbiased advice on energy consumption and energy-efficient solutions via phone and email. In addition, the Energy Agency offers both webinars and local inspiration meetings to promote knowledge of energy-efficient solutions, energy renovation

and conversion away from fossil fuels in individual heating. The events are organized in collaboration with the local municipality. In 2022, 255 meetings were held. 60 % were local meetings 40% were held as webinars. The events contribute to increased energy efficiency and conversion away from oil and gas boilers to heat pumps and district heating.

Knowledge Centre for Energy Savings in Buildings
The Knowledge Centre for Energy Savings in Buildings is a service for craftsmen and educational institutions concerning energy efficiency improvements. The centre supplies the building professionals, schools and universities with knowledge, guides and online tools, promoting energy savings and good practice. They also provide courses to support the further education of craftsmen within the field.

The 2018 Energy Agreement focuses on the remaining oil-fired boilers and barriers to promote the use of heat pumps. Subsidies for scrapping of gas- and pellet-based boilers were also added through later expansions of the scheme. In 2020 a subsidy scheme was introduced, where the energy service provider assumed ownership of the heat pump and responsibility for installation, operation and maintenance of the heat pump. The customer (owner of the building) typically paid a one-off payment, a subscription fee and a price for the delivered heat to the building. With heat pumps on subscription, the consumer avoided a large investment and at the same time obtained a number of service benefits. It is the company providing the heat pumps on subscription that was eligble for the subsidy.

"Better Houses"
"BetterHouses" is a scheme (voluntary and market-driven system) focusing on energy renovation of buildings. The aim is to make it easier for owners of buildings, mostly homeowners, to energy renovate by creating a "one stop shop" for energy renovation, where the owner only has to contact one certified building contractor and to get an overall counselling on energy renovation of the entire building. Skilled craftsmen are educated under the BetterHouses program to be advisors on energy renovation.

Long-term strategy for the renovation of the national building stock
As stated in article 2a of the energy performance of buildings directive (EPBD) each Member State must notify a long-term renovation strategy (LTRS) to support the renovation of the national building stock.

On 10 March 2020, Denmark published and notified part 1[33] of Denmark's LTRS to the Commission. However, the government decided, in connection with the notification of Denmark's National Energy and Climate Plan (NECP) at the end of 2019, that the indicative milestones for 2030, 2040 and 2050 would be determined in connection with the upcoming national climate action plans in order to be able to take into account possible effects of new initiatives.

On 22 June 2021, Denmark therefore notified part 2[34] of Denmark's LTRS, which contains two non-binding indicative milestones for 2030, 2040 and 2050 (see table 4.18 below). In addition, the strategy contains an explanation of how the milestones contribute to achieve the Union's energy efficiency targets in accordance with Directive 2012/27/EU on energy efficiency. Part 2 of Denmark's renovation strategy must therefore be seen in connection with part 1, in which existing and known tools in Denmark's energy renovation efforts are explained. The determination of the indicative milestones are based on agreements such as the Climate Agreement for Energy and Industry etc. of 22 June 2020[35] and Green Housing Agreement 2020 of 19 May 2020[36].

The strategy describes various initiatives aimed at promoting the renovation of the Danish building stock and efforts aimed at insuring energy efficiency in the national building stock.

Table 2.4(18) Non-binding indicative milestones for 2030, 2040 and 2050

	2030	2040	2050
1) Reduction of the final energy consumption per m^2 for households	5%		
2) Reduction of the calculated energy consumption per m^2 for households	10%	19%	28%

[33] https://ens.dk/ansvarsomraader/energibesparelser/byggeri-og-renovering
[34] https://ens.dk/ansvarsomraader/energibesparelser/byggeri-og-renovering
[35] https://kefm.dk/aktuelt/nyheder/2020/jun/bred-klimaaftale-bringer-danmark-tilbage-i-den-groenne-foerertroeje
[36] https://www.regeringen.dk/aktuelt/tidligere-publikationer/groen-boligaftale-2020/

Table 2.4(19) Measures in the household (residential) sector

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]
									2025	2030
5-HO-01: Minimum energy requirements for buildings and Energy performing certificates for buildings	Denmark has a long experience with energy efficiency and energy savings in buildings. From 1990 to 2022 energy consumption for heating has been reduced by 29.7% per m2. All new buildings must, according to the Danish building code, be constructed as nearly zero-energy buildings (NZEB). The benefits of reducing energy consumption are tangible: less fossil fuel is consumed and the environment has improved substantially. Strict and progressively tightened building regulations since 1977 have ensured a stable demand for energy-efficient building technologies. Energy labelling of buildings must be implemented after finishing the construction of a building and on the sale or rental of the building - primarily heating consumption. This applies in principle for all buildings, irrespective of size, apart from production facilities, factories etc. The energy performance is expressed by a numeric indicator of primary energy in kWh/m2 per year based on the primary energy factor. The Energy Performing Certificate (EPC) consist of an energy label and an energy plan. For publicly owned buildings over 250 m2 the EPC must be prepared regularly every ten years. Furthermore all large buildings over 600 m2 which are frequently visited by the public must display a valid EPC in a prominent place clearly visible to the public. Most new buildings shall, according to the Danish Building Code, declare the total CO2-eq emission from the lifecycle of the building, according to EN 15978. The obligatory modules are A1-A3, B4, B6, C3, C4 and D. Buildings larger than 1000 m2 shall in addition to this also live up to a limit value of 12 kg CO2-eq/m2 per year using the same modules, except for D.	2_10: Efficiency improvements of buildings	Regulatory, Information	Implemented	Energy	CO2, CH4, N2O	1997	Ministry of Social Affairs, Housing and Senior Citizens (building code) and the Danish Energy Agency (EPC)	NE	NE
5-HO-02: Ecodesign and energy labelling of electric appliances	Minimum energy requirements (ecodesign) and energy labelling of appliances: The European Community also has mandatory energy requirements for some 20 energy-consuming products, such as electric motors, circulators, white goods etc. There are also voluntary labelling schemes (Energy Star, Energy Arrow, windows, boilers) for a number of products. The European Community has mandatory ecodesign requirements for more than 30 energy-related product groups, such as electric motors, circulators, white goods, etc. A majority of these product groups are also covered by mandatory energy labelling (A-G) displaying the energy performance of products and other relevant product information to the end-user. Danish authorities play an active role both in negotiation of the requirements and in securing compliance with the compulsory requirements - e.g. through market surveillance. The Danish Energy Agency offers advice on its website to end-users in order to promote energy-efficient appliances and products.	2_11: Efficiency improvement of appliances	Information	Implemented	Energy	CO2, CH4, N2O	1992	The Danish Energy Agency, The Danish Safety Technology Authority	NE	NE
5-HO-03: Substitution of individual oil, gas and pellet based furnaces	This support scheme supplies subsidies for companies, which offer electric heat pumps on subscription for private year-round housing. The subsidy pool among others is designed to give aid to citizens who wish to convert to an electric heat pump, but who have limited financing opportunities. The subsidy will amount to approximately DKK 25.000 per electric heat pump on average.	2_14: Demand management/reduction	Economic, Information	Implemented	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	IE (HO-09)	IE (HO-09)
5-HO-04: Better Houses	"BetterHouses" is a scheme (voluntary and market-driven system) from the Danish Energy Agency focusing on energy renovation of buildings. The aim is to make it easier for owners of buildings, mostly homeowners, to energy renovate by creating a "one stop shop" for energy renovation, where the owner only has to contact one certified building contractor and to get an overall counselling on energy renovation of the entire building. Skilled workmen are educated under the BetterHouses program to be advisors on energy renovation. The Danish Energy agency approves the BetterHouses firms and professionals like architects, engineers, craftsmen, energy consultants and building designers can take training courses to become BetterHouses advisors. The training is carried out at academies of higher education. A Better Houses advisor can manage the process and can follow the project all the way from plan to completed renovation.	2_10: Efficiency improvements of buildings	Information	Implemented	Energy	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE
5-HO-05: Strategy for Energy renovation of buildings	The long-term renovation strategy supports the renovation of the national stock of residential and non-residential buildings. The strategy shall contribute to the fulfilment of the EU's long-term goal for 2050 of reducing greenhouse gas emissions by 80-95% compared with 1990. The goal is to achieve a highly efficient and decarbonised building stock by 2050 and facilitate the cost-effective transformation of existing buildings into nearly zero-energy buildings (NZEBs). The strategy includes the status of energy efficiency of buildings in Denmark, normative instruments (e.g. component-specific requirements in connection with renovations), financial instruments (e.g. taxes and grants) and informative instruments (e.g. information for citizens, energy rating of buildings or additional training of tradesmen).	2_10: Efficiency improvements of buildings	Information, Education, Research	Implemented	Energy	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE

Table 2.4(19) Measures in the household (residential) sector (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
5-HO-08: Phasing out of oil and gas boilers by subsidies for conversion to green solutions [= 5-HO-03 changed and enhanced]	Reducing energy consumption by increasing energy efficiency and promoting energy saving is a very important element for Danish energy policy, hence phasing out oil-, and gas boilers alongside other less efficient heating sources by subsidies for conversion to green solutions have been essential towards fulfilling the ambitions of the climate agreements. This is through various support schemes, subsidising these conversions to more green alternatives in various models, ranging from one-time subsidies to the individual citizen to subscription solutions, which aid citizens who wish to convert to an electric heat pump, but who have limited financing opportunities.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	IE	IE
5-HO-09: Increase in allocated funds for phasing out oil and gas boilers until 2025 [= 5-HO-03 and 5-HO-08 further enhanced]	Reducing energy consumption by increasing energy efficiency and promoting energy saving is a very important element for Danish energy policy. With the increased interest seen from both a political perspective besides the immense interest seen from the public, further grants have been granted to the support schemes for phasing out oil-, and gas boilers by subsidies for conversion to green solutions.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	200	350
5-HO-10: Grants for green housing improvements (the Building Pool)	The Building Pool targets energy savings in private year-round housing. The subsidy pool i.e. supports the replacement of oil and gas burners with heat pumps (i.e. reduction in CO2-emissions from the individual heating sector), insulation of the climate screen and optimization of the operation of the building. In 2023, the pool is split into two pools; one for replacement of oil and gas burners with heat pumps (Heat pump pool) and one for energy optimizations i.e. insulation of the climate screen (Energy Renovation pool). The funding was split in 70% for the Heat Pump Pool and 30% for the Energy Renovation Pool in 2023. The allocation for 2024-2026 is to be decided politically but has not happened yet.	2_10: Efficiency improvements of buildings, 2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	NE	NE
5-HO-11: Grants for individual heat pump when scrapping oil- or gas boilers (The Scrapping Scheme)	The scrapping scheme targets oil, gas and biomass boiler owners who wants to change their heating source to a subscription-based heat pump. The subsidy pool i.e. supports the conversion into a green heating solution by making it possible to rent instead of buy a heat pump, i.e. for lower-income groups. The Scrapping Scheme contains 211 mio. DKK in total in 2020-2026.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.5.2 CH_4 (methane)

Total emissions of methane from the energy sector account for about 1.1% of the sector's greenhouse gas emissions, corresponding to about 0.5 million tonnes CO_2 equivalents. Many small sources contribute to this overall relatively minor source of greenhouse gas emissions. The biggest single contribution comes from gas-fired CHP plants, which emit unburnt natural gas. With a view to minimising the emissions, a 1998 Statutory Order, in force from 2006 to 2013, has limited emissions of nitrogen oxides, unburnt carbon hydrides, including methane, and carbon monoxide etc.. However, the limit value for unburned hydro carbons was removed in a revision of the Statutory Order entering into force on 7 January 2013.

As of 1 January 2011 a tax on methane emissions - equal in terms of CO_2 equivalents to the CO_2 tax - from natural gas fired power plants was introduced (see chapter 2.4.3.3.3.).

2.4.3.5.3 N_2O (nitrous oxide)

Nitrous oxide accounts for 0.8%, or 0.4 million tonnes CO_2 equivalents, of the energy sector's total greenhouse gas emissions. Within energy, emissions of nitrous oxide from transport have increased since the introduction of new cars with catalytic converters in 1990. However, as the population of cars from before 1990 is almost zero today, no further increase in specific nitrous oxide emissions from cars with catalytic converters is expected.

2.4.3.6 Industrial Processes and Product Use (IPPU)

The greenhouse gas emissions from industrial processes and product use made up 4.0% of Denmark's total greenhouse gas emissions in 2022 (with LULUCF), of which CO_2 was the primary emission. 82.4% of the sector's emissions are CO_2, primarily from cement production, and 16.4% are emissions of the industrial gases HFCs, PFCs, and SF_6. The remaining share comprises 1.1% emissions of nitrous oxide and less than 0.2% emissions of methane.

2.4.3.6.1 CO_2 - Cement production

Cement production results in large emissions of CO_2. The production process itself is very energy-intensive, and a large quantity of CO_2 is emitted in connection with the production process.
Cement production in Denmark is concentrated in a single company. About half of the emissions come from the company's energy consumption and the other half from chalk, which is one of the raw materials used in the process. A lot has been done within the cement industry. For example, in the last 20 years the Danish cement producer has significantly reduced its CO_2 emissions per tonne cement produced. Since 2005, all CO_2 emissions from cement production in Denmark are subject to the EU ETS.

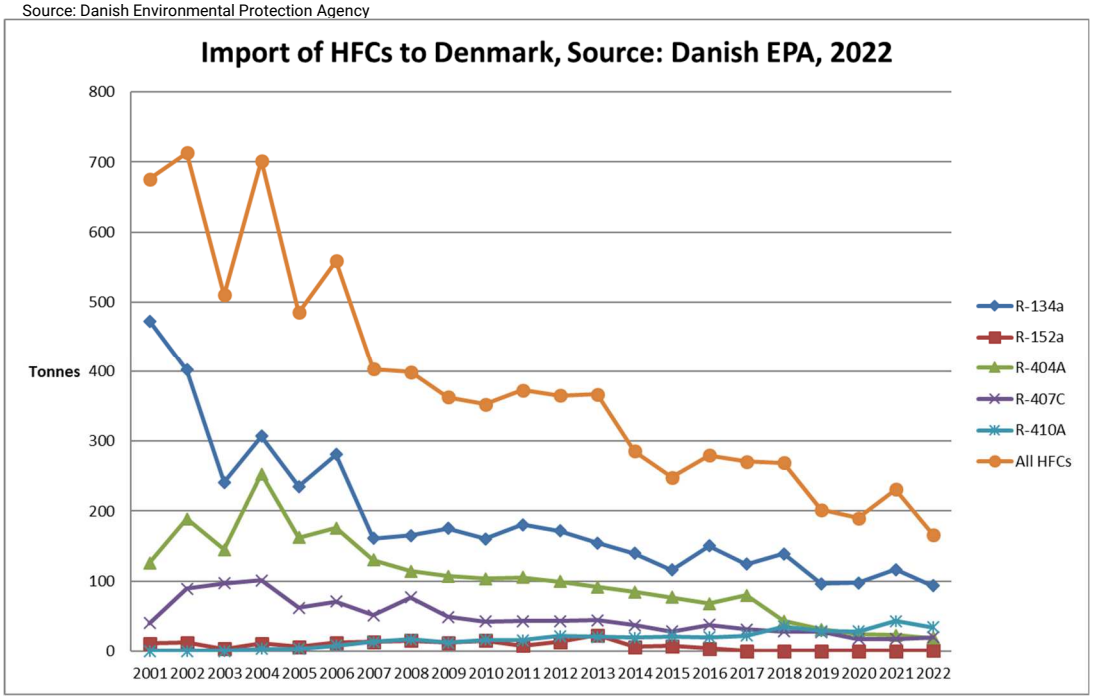
2.4.3.6.2 N_2O - Production of nitric acid

In the period 1990-2004, Danish greenhouse gas emission inventories included emissions of nitrous oxide (N_2O) from the production of nitric acid in connection with the production of fertilizer from a single plant. In mid 2004, the owner decided to stop production of fertilizer and so production of nitric acid in Denmark. Emissions of nitrous oxide from production of nitric acid in 2003 corresponded to 0.9 million tonnes CO_2 equivalents. In 2004 emissions were about one-half of this, and from 2005 they ceased entirely cf. market conditions for production of fertilizer in Europe.

2.4.3.6.3 HFCs, PFCs and SF_6 - Consumption of these substances

Emissions of the so-called industrial gases HFCs, PFCs, and SF_6 are in accordance with the emission inventories included in the industrial sector. This is also the case for emissions from other sectors during use and scrapping of equipment containing HFCs, PFCs and SF_6. These gases are used for several purposes including as refrigerants and blowing agents, etc. (HFCs) and insulator gas in high voltage switchgear (SF_6). Since there is no production of these gases in Denmark, all emissions are related to the import of the substances. The developments in imports of chemical mixtures containing HFCs in recent years are shown in Figure 2.4(3).

Figure 2.4(3) Import of HFCs to Denmark 2000-2022 in Tonnes HFCs
Source: Danish Environmental Protection Agency



The Danish regulation of emissions of the industrial greenhouse gases (HFCs, PFCs, and SF_6) is 2-phased, since there is a consumer tax on the import of the substances and also a statutory order regulating the use of the gases in new facilities and products. Both measures are further described below.

According to model-based calculations, the combined effect of taxation and regulation of F-gases is greater than in a scenario with only the effect of EU-regulation. The accumulated emission savings over the period from 2001 to 2022 is estimated at approximately 8 million tonnes of CO_2 equivalents.

2.4.3.6.3.1 Taxes on HFCs, PFCs and SF_6

Taxes corresponding to their GWP have been imposed on each of the greenhouse gases from March 2001 in combination with the Danish CO_2 tax of approximately DKK 0.19 per kg CO_2 as described in section 2.4.3.3. This means that HFC-134a is subject to a tax of DKK 270/kg, as it has a GWP of 1,430.

The tax is imposed on the substances on importation because none of them is produced in Denmark. The tax is payable whether the substances are imported as pure substances or as part of imported products. If the content in the products is not known, the tax is based on a fixed tariff.

The tax is payable on a wide range of products, including:

- Refrigerating and freezing plants
- Air-conditioning plants
- PUR foam for cooling plants, district heating pipes, insulated gates and doors, panels for refrigeration and freezer rooms, extruded polystyrene for insulation (XPS foam), jointing foam
- Spray canisters
- Insulation gas

The tax is also payable on services on existing and new installations/products.

2.4.3.6.3.2 Regulation of HFCs, PFCs and SF_6

On 15 July 2002, a statutory order on the regulation of certain industrial greenhouse gases came into force.

This Statutory Order includes a general ban on the use of industrial greenhouse gases in a great number of new facilities and products from 1 January 2006, including household cooling and freezing appliances, PUR foam, etc. However, some products and applications are exempted from the ban. This applies, for example, to servicing existing plants, mobile cooling plants, including mobile air conditioning plants, the use of HFCs in cooling and air conditioning plants with fillings between 0.150

and10 kg HFC, SF_6 in high voltage plants, etc. The Statutory order was revised in May 2017 in order to reflect the development of new low GWP, fluorinated refrigerants such as HFOs. The only change is that the revised order does not cover HFOs. All other provisions remains unchanged. The Statutory Order was revised again in November 2018 allowing the use of HFCs in certain hermetically sealed heat pumps in amounts up to 50 kg. The purpose of the revision was to remove barriers for the use of medium size heat pumps in the energy system.

In May 2021 the general exemption for equipment with fillings between 0.150 and 10 kg HFC was changed so that this exemption only applies to hermetically sealed equipment. For other types of equipment a limit of 5 tons of CO_2 equivalents was introduced. The purpose is to encourage the use of low GWP refrigerants.

To ensure the best possible implementation of the phase-out dates for the refrigeration sector, a total of DKK 12 million was reserved for the period 2005-2007 for development of alternatives and for subsidies for implementation of the alternatives developed in the previous years. A knowledge centre for HFC-free cooling has been established. This centre disseminates knowledge and offers technical assistance.

As from 2015 to 2017 DKK 1,5 million is reserved for promoting cooling equipment relying on natural refrigerants and retrofitting existing equipment to use refrigerants with lower GWP.

To ensure regeneration and environmentally friendly destruction of newly developed flammable fluorinated refrigerants DKK 2.5 million is granted from 2017 to 2019 to upgrade the existing return system (see Chapter 2.4.3.4).

In 2019 an information campaign costing 300.000 DKK aiming at preventing illegal imports of HFC is expected to be launched.

An overview of the measures regarding industrial processes is given in Table 2.4(20).

Table 2.4(20) Measures in the Industrial Processes sector

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
6-IP-01: Regulation of use of HFCs, PFCs and SF6 (phasing out most of the uses) - Statutory order on fluorinated greenhouse gasses	Import, sale and use of the substances or new products containing the substances is forbidden from 1 January 2006 with some exceptions.	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Regulatory	Implemented	Industrial processes and product use	HFCs, PFCs, SF6	2006	The Danish Environmental Protection Agency	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.7 Agriculture

The primary occupational sectors agriculture, forestry and fisheries are generally considered as one single economic sector in Denmark, although the importance of the individual sectors differs greatly with respect to Denmark's emissions and uptake of greenhouse gases. Agricultural farms have emissions of primarily methane and nitrous oxide as described in this section. Liming, urea application and other carbon-containing fertilizers are minor sources of CO_2 emissions. The CO_2 emissions by sources and removals by sinks in relation to Denmark's agricultural soils and forests are included under the LULUCF sector described in Chapter 2.4.3.7. CO_2 emissions from energy use in agriculture are included under energy (Chapter 2.4.3.4).

The agricultural sector contributes in 2022 with 27.7 % of the total emission in CO_2 equivalents (excl. LULUCF and indirect CO_2) and the major part is related to the livestock production. Since 1990, the agricultural emission has decreased 16.7 % (mainly due to a decrease in the N_2O emission). N_2O emissions from agriculture decreased by 33% and the CH_4 emissions from agriculture increased by 2% from 1990 to 2022. Agriculture is the overall most important sector regarding emissions of N_2O and CH_4. In 2022, the contribution of N_2O and CH_4 from agriculture to the national total emission of these gases was 89% and 81%, respectively (Nielsen et al., (2024a)).

Policies and measures relevant for the agricultural sector which have affected or will affect the sector's greenhouse gas emissions are:

- Ban on burning of straw on fields
- Action Plans for the Aquatic Environment I and II and Action Plan for Sustainable Agriculture
- Action Plan for the Aquatic Environment III
- Ammonia Action Plan
- Action Plan for Joint Biogas Plants and subsequent follow-up programmes, including the New Energy Policy Agreement
- Environmental Approval Act for Livestock Holdings
- Agreement on Green Growth 2009
- Agreement on Green Growth 2.0
- Subsidy for conversion of arable land on organic soils to nature
- Political Agreement on a Food and Agricultural Package and the political Agreement on Targeted Regulation and subsequent agreements [such as the national budget for 2020, which includes allocation of additional funding for afforestation and environment- and climate-technologies]
- Agreement on Nature (the Nature Package)
- Advisory task force on barriers for reducing the hydraulic retention time of manure before being delivered to biogas plants (PSO Agreement of 17 November 2016)
- National Green Climate Fund – Initiatives in agriculture 2017
- GHG accounting and awareness building at farm-level. Climate-friendly feed production for pigs. Promotion of green bio-refining. (Agreement of 2nd May 2019)
- Multifunctional Land Reparcelling Fund (Agreement of 19th September 2019)
- Agreement on a Green Transition of The Agricultural Sector (4th October , 2021)
- Rural Development Programme 2014-2022 – a scheme for permanent extensification (December 2014 and June 2023)[37]
- The Danish Strategic CAP Plan 2023-2027 (31st August 2023)
- The green tripartite "Agreement on a green Denmark" (June, 2024)
- Political agreement on implementation of "Agreement on a green Denmark" (November, 2024).

Table 2.4(21) contains further information on the measures in the agricultural sector.

Stronger research efforts in agriculture affecting all greenhouse gases

Development of new solutions and new technologies could support a climate-friendly food production in the future. At the same time, there is a need to know more about how greenhouse gas emission reductions can be obtained in the best way with the technologies we already have available today.

[37] https://agriculture.ec.europa.eu/common-agricultural-policy/rural-development/country/denmark_en

Funded by the National Green Climate Fund, other research work in agriculture was initiated in 2019:

- Climate accounts and information on individual farm-level;
- Climate-friendly feed production;
- Promotion of green bio refining; and
- Promotion of green building.

In 2019, DKK 90 million was allocated for climate change mitigation research in agriculture in the period 2019-2021 and a research programme has been launched consisting of 10 projects. An additional DKK 30 million has been allocated to this initiative in 2022.

Furthermore, the Danish Green Development and Demonstration Programme (GUDP) annually allocates subsidies for, among other things, climate research and development in agriculture. The program has an annual budget of approximately DKK185 million.

In 2021, 2022 and 2023, a total of DKK 435 million has been allocated to a Research program for farm-level inventories of greenhouse gas and nutrient emissions. The purpose of this research program is to contribute to a robust level of knowledge on significant emissions of GHG and nitrogen at farm-level.

In 2023, DKK 110 million has been allocated to further research in three development initiatives with greenhouse gas reduction potentials in the agricultural sector, hereunder biorefining of waste and residues (biochar), manure management and feed additives for reducing the production of enteric methane in dairy cattle. All initiatives are part of the Agreement on a Green Transition of the Agricultural Sector from October 2021.

In 2024, a further DKK 50 million has been allocated (through the Research Reserve) to research and development in mitigation strategies and improved farm-level inventories of GHG emissions and nitrogen leaching.

2.4.3.7.1 CH_4 (methane)

Methane emissions mainly stem from the agricultural sector, contributing, in 2022 with 80.6% of total Danish CH_4 emissions, corresponding to 7.1 million tonnes CO_2 equivalents (Nielsen et al., (2022a). Agricultural systems have two main sources of methane. Methane is formed through enteric fermentation of feed during digestion in livestock (58%) and management of animal manure (42%).

Danish agriculture's biggest contribution to the methane emissions comes from dairy cattle.

In the digestion process, methane is a by-product of the fermentation of feed in the rumen, primarily from grass and roughage fodder such as grass, grass silage and maize silage. In addition, methane is formed by microorganisms during conversion of carbon in the manure under anaerobic conditions, increasing with increasing temperatures and pH. These conditions especially occur in manure stores and housing systems with slurry (liquid manure) or deep litter. Methane from manure management in Denmark is primarily linked to pig production.

The emission of methane from agriculture has remained more or less stable in the period from 1990 to 2022, and the total CH_4 emission from the agriculture sector has increased 2 % in the same period. At present, the number of dairy cows in Denmark is projected to decrease towards 2035 in combination with an increased milk production per dairy cow. At the same time, the CH_4 emissions from manure are expected to slightly decrease due to an increasing share of the manure expected to be treated in biogas plants or acidified in the livestock housing system (the stable). The effect on methane emissions from acidification needs further documentation. As a part of the Agreement on a Green Transition of the Agricultural Sector of October 2021 and the included requirement for reduction of methane from enteric rumen fermentation, the use of feed additives, inhibiting production of methane from enteric rumen fermentation, is expected to decrease the emissions of methane from dairy cattle.

2.4.3.7.1.1 Biogas

Biogas from digestion of manure and organic wastes carries a number of potential advantages when used to substitute fossil energy: reductions in emissions of greenhouse gases, better utilization of manure as fertiliser, recycling and use of organic wastes for energy and fertiliser purposes etc. However, there are also environmental challenges for example increased ammonia emissions and odour from the biogas plants.

As part of the Danish Rural Development Programme 2007-2013, financial support has been provided to investments in biogas plants in 2010 and in 2012. In 2012 support was awarded to both new and existing biogas plants to the amount of DKK 262 million.

In order to stimulate expansion of the biogas sector the subsidy on the sales price of electricity production based on biogas was adjusted by the Energy Policy Agreement of 22 March 2012. The Agreement resulted in an amendment to the Promotion of Renewable Energy Act of 27 December 2008.

The Energy Policy Agreement continued funding biogas for combined heat and power (CHP) and introduced subsidy equality so that biogas sold to the natural gas grid would receive the same subsidy as biogas used at CHP plants. In addition the agreement also introduced a new subsidy when biogas is used in industrial processes, as a fuel for transport or for the production of heat.

As part of the PSO Agreement of 17 November 2016, it was decided to establish and fund an advisory task force with the aim of investigating and removing barriers for reducing the hydraulic retention time of manure before being delivered to biogas plants. This included an earmarking of DKK 9.0 million for developing solutions in existing biogas plants and associated suppliers of feedstock to reduce the retention time of manure in the housing system prior to the treatment in the biogas plant. This is expected to increase the production of biogas per unit input of manure while at the same time reducing emissions of methane from the housing system, and thus reduce methane emissions while increasing biogas production at the same time.

The 2024 greenhouse gas emission projection expects an increase in biogas production from 29 PJ in 2022 to 48 PJ in 2030 with a further minor increase to 49 PJ in 2040 when considering biogas facilities mainly based on agricultural sources.

As part of the 2018 energy agreement, it was decided to no longer permit new applicants to the existing subsidy schemes for the use of biogas from 1 January 2020.

As part of the Climate Agreement for Energy and Industry 2020, six tenders from 2024-2030 for the production of biogas and other green gases were agreed upon, with an expected production of 10 PJ in 2030. Subsequently, the six tenders have been reduced to five tenders with an expected production of 6 PJ in 2030. The production is, however, uncertain as no state aid approval has been obtained for the scheme.

In 2019, a targeted effort to reduce methane emissions from Danish biogas plants was initiated. The findings from the project showed higher emissions than previously assumed from the production of biogas. This resulted in the formulation of new regulation, which entered into force 1 January 2023. The regulation dictates the reporting of annual mandatory leak detection and repair to the Danish Energy Agency, regular self-monitoring, as well as a 1 % limit on methane loss from upgrading facilities. It is expected that a new campaign to measure the effect of the regulation will take place in 2025.

2.4.3.7.2 N_2O (nitrous oxide)

Agriculture is the largest source of nitrous oxide emissions in Denmark. In 2022, 89% of the total Danish N_2O emissions came from agriculture, corresponding to 4.2 million tonnes of CO_2 equivalents (Nielsen et al., (2024a)). The process of emission of N_2O occurs in some types of manure storage facilities (in 2022, N_2O from manure management constituted 12.6% of total N_2O emissions in agriculture) and during conversion of mineral and organic bound nitrogen (e.g. in manure and applied wastewater sludge) in the soil. Some of the leached nitrogen is also converted into nitrous oxide. Nitrogen entering the soil with applied fertiliser and manure, and through plant residue, is the main sources of nitrous gas emissions (in 2022, N_2O emissions from agricultural soils constituted 87.4% of total N_2O emissions in agriculture).

Likewise, ammonia (NH_3) volatilisation contributes to the greenhouse effect because some of the ammonia nitrate ends up as nitrous oxide in the atmosphere. Ammonia volatilisation into the atmosphere stems almost exclusively from agriculture, through conversion processes from manure, fertiliser, sludge, crop residue and treatment of straw with ammonia. In particular, the emissions occur during handling of manure in animal housing, during storage and transport of manure, and from grazing animals[38] (*Nielsen et al., (2018a)*).

The main reason for the drop in the overall emissions of N_2O from the agricultural sector of 33% from 1990 to 2022 is enforced legislation (see below) to reduce nitrogen leaching by improving the utilisation of nitrogen binding in manure, as well as measures to reduce the application of mineral fertilizers to soils.

[38] Mikkelsen et al., 2005: Mikkelsen, M.H., Gyldenkærne, S., Poulsen, H.D., Olesen, J.E. & Sommer, S.G. (2005). Opgørelse og beregningsmetode for landbrugets emissioner af ammoniak og drivhusgasser 1985-2002. Arbejdsrapport fra DMU Nr. 204 (in Danish).

The legislation has resulted in a considerable reduction in the use of mineral fertilisers. It has also helped, that the market driven effort to improve the feeding efficiency (and thereby also the farmers economy) have reduced the nitrogen excreted per unit livestock produced. The basis for the N_2O is then reduced (*Nielsen et al., (2017a)*). Implementation of the Action Plans for the Aquatic Environment II and III contribute the most to this reduction[39,40]. Further projected decrease in N_2O emissions towards 2035 is mainly attributed to areas being taken out of agricultural production for urban development and infrastructure etc., and to anticipated increased shares of organic agriculture (DCE, December 2014).

In 2016, the Political Agreement on a Food and Agricultural Package from 2015 allowed Danish farmers to use more nitrogen in the fields through a lifting of the reduced fertilizer standards for nitrogen. The potential slight increase in future N_2O emissions resulting from this policy change is sought mitigated by correspondingly implementing measures for ensuring optimization of N-binding and carbon sequestration in agricultural soils (e.g. catch crops).

In 2021, the Agreement on a Green Transition of the Agricultural Sector (further elaborated in chapter 2.4.3.7.2.5), introduced measures to reduce the nitrogen discharge to coastal waters by approx. 8,000 tonnes in 2027. The effort is substantial and in line with the requirements of the EU Water Framework Directive. As a part of the agreement, DKK 249 million (approximately EUR 33 million) has been allocated to initiate the development of a new farm-level nitrogen regulatory model, which is expected to reduce nitrogen emissions by 6,500 tonnes by 2027. The regulatory model is expected to introduce farm-level measures i.e. crop selection, catch crops and various other management instruments into the regulation. It is estimated that the efforts specifically targeted nitrogen reduction (by 8,000 tons) will also reduce greenhouse gas emissions by 0.31 million tons of CO_2e in 2025 and 0.64 million tons of CO_2e in 2030.

2.4.3.7.2.1 Action Plans for the Aquatic Environment I and II and Action Plan for Sustainable Agriculture

One of the main purposes of the Action Plans for the Aquatic Environment and the Action Plan for Sustainable Agriculture was to reduce agriculture's nutrient losses to the aquatic environment.

The action plans was implemented as regulation of farmers' behaviour. The Action Plan for the Aquatic Environment I was initiated in 1987, and the Action Plan for Sustainable Agriculture in 1991. In particular, these action plans included requirements concerning closed periods for applying slurry, ensuring a better utilisation of manure as well as minimum slurry storage capacity, mandatory incorporation of manure into the soil shortly after application, and winter green fields. The Action Plan for the Aquatic Environment II from 1998 contained a number of additional measures, including re-establishment of wetlands, afforestation, agreements on environment friendly agricultural measures, establishment of organic farming on an additional 170,000 ha, improved utilization of fodder, reduced animal density, use of catch crops, reduced fertilisation norms, and increased efficiency in use of nitrogen in manure. The aim of the political plans, which has now been reached, was to reduce nitrogen leaching by 100,000 tonnes N/year up to the year 2003[41]. The benchmark for the evaluation of the agricultural nitrogen leaching, as part of the final evaluation of the Action Plan for the Aquatic Environment II in December 2003, was 311,000 tonnes N per year. The evaluation showed that measures already implemented in addition to the measures agreed upon and financed by Action Plan II would result in a reduction of the total nitrogen leaching from agriculture (root zone and stable and storage facilities) of around 149,000 tonnes N per year. This corresponds to a reduction of around 48% of 311,000 tonnes N. After taking into account the calculation uncertainties, the nitrogen discharge reduction goal of 49% was achieved.

Specifically, these action plans have reduced the emissions of nitrous oxide. There have presumably also been small effects on methane emissions from manure stores, particularly as a consequence of increased use of anaerobic fermentation of manure in biogas plants and the reduced use of deep litter. The increased use of catch crops and larger overall areas with organic farming would also be expected to an increased storage of carbon in the soil.

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[39] Olesen et al., 2004: Olesen, J.E., Petersen, S.O., Gyldenkærne, S., Mikkelsen, M.H., Jacobsen, B.H., Vesterdal, L., Jørgensen, A.M.K., Christensen, B.T., Abildtrup, J., Heidmann, T. & Rubæk, G. (2004). Jordbrug og klimaændringer - samspil til vandmiljøplaner. DJF rapport Markbrug nr. 109. (in Danish).

[40] Olesen, 2005: Olesen, J.E. (2005). Muligheder for reduktion af drivhusgasemissioner i jordbruget. I: Olesen, J.E. (red). Drivhusgasser fra jordbruget - reduktionsmuligheder. DJF rapport Markbrug nr. 113, s. 12-32. (in Danish).

[41] Grant et al., 2000: Grant, R., Blicher-Mathiesen, G., Jørgensen, V., Kyllingsbæk, A., Poulsen, H.D., Børsting, C., Jørgensen, J.O., Schou, J.S., Kristensen, E.S., Waagepetersen, J. & Mikkelsen, H.E. (2000). Vandmiljøplan II - midtvejsevaluering. Miljø- og Energiministeriet, Danmarks Miljøundersøgelser, Silkeborg, Denmark. 65 pp (in Danish).

Most of the changes in nitrous oxide emissions from agriculture through the period since 1990 can be attributed to these action plans. However, it has been calculated that even without the action plans there would have been a reduction in emissions, although to a much lesser extent, due to an overall optimization and improvement of farming techniques and management practices. The effect of these action plans on emissions of nitrous oxide has been calculated at about 2.2 million tonnes CO_2 equivalents/year[19]. There are no estimates of the effect of the Action Plans I and II for the Aquatic Environment and the Action Plan for Sustainable Agriculture on carbon storage in the soil.

As stated in chapter 2.4.3.2.7 and further elaborated in chapter 2.4.3.7.2.5, the Agreement on a Green Transition of the Agricultural Sector from 2021, introduced measures aimed at reducing nitrogen discharge to coastal waters by approx. 8,000 tons in 2027, associated with an estimated reduction in greenhouse gas emissions by 0.31 million tons of CO_2e in 2025 and 0.64 million tons of CO_2e in 2030.

2.4.3.7.2.2 The Ammonia efforts

Ammonia emitted from agriculture will stimulate emissions of nitrous oxide when it is deposited in other ecosystems. Reducing ammonia emissions will therefore also result in a reduction of nitrous oxide emissions from that step in the production system. However, as the reduced ammonia emissions increase the nitrogen content in the manure, more nitrogen will, depending on the regulation, be applied to agricultural soils, increasing ammonia as well as nitrous oxide emissions during application. Together with the Action Plans for the Aquatic Environment I, II and III, the Ammonia Action Plan, which was adopted in 2001 carried a projected reduction of ammonia emissions by an estimated 15-20,000 tonnes of nitrogen annually.

In 2018, a 22 per cent decrease in emissions of ammonia from agriculture from 2001 to 2016 could be seen – corresponding to a reduction of 75,000 tonnes CO_2 equivalents in annual N_2O emissions. From 1990 to 2016 there was a 43 percent decrease - corresponding to a reduction of 200,000 tonnes CO_2 equivalents in annual N_2O emissions. The target level of approximately 60,000 tonnes of nitrogen in emissions of ammonia from agriculture was reached in 2011.

In 2019, further measures to reduce emissions of ammonia from agriculture was implemented. However, the effect on greenhouse gas emissions was estimated to be neutral.

2.4.3.7.2.3 Action Plan for the Aquatic Environment III and the agreements of Green Growth

With the political agreement on the Action Plan for the Aquatic Environment III (APAE III) of 2 April 2004, a number of measures were implemented to follow up on the results attained via the previous plans. This third action plan contains targets with respect to nitrogen, phosphorus, sensitive natural areas, and slurry odour. It is a 10-year agreement, and was, in 2008 and 2011, evaluated with respect to the Water Framework Directive and the Habitats Directive. Special emphasis in the APAE III was on the use of catch crops, stricter requirements for use of manure as well as afforestation and agro-environmental measures. In addition, the agreement includes research initiatives aimed at slurry odours and reduction of emissions of nutrients, e.g. research into technology to manage slurry, ammonia etc. The effect of the action plan for the period 2008-2012 was projected at 0.2 million tonnes CO_2 equivalents/year[42].

In 2008 the APAE III was evaluated on results, adequacy of tools and economic aspects to ensure that activities and expected results were achieved. The main conclusions for a number of measures were that implementation and effects have not been as anticipated. At the midterm evaluation of the APAE III, covering the years 2004-2007, no reductions in the production of animal manure were recorded, nor any decrease in the use of mineral fertilizers. Furthermore, no significant reductions in nitrogen leaching were proved for the investigated period (Waage Petersen et al., 2008).Thus, no change in the key parameters that provided reduction in the emissions of greenhouse gasses in the earlier action plans for the aquatic environment have happened so far, and it may therefore be difficult to reach the initial target.

In 2009, the Danish government launched the Green Growth Agreement (GGA) – as a plan for ensuring better conditions for nature and the environment while allowing agriculture to develop as a business. The GGA is a long-term plan for Danish nature, environment and agriculture with the purpose of ensuring that a high level of environmental, nature and climate protection goes hand in hand with modern and competitive agriculture and food industries.

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[42] Olesen et al., 2001: Olesen, J.E., Andersen, J.M., Jacobsen, B.H., Hvelplund, T., Jørgensen, U., Schou, J.S., Graversen, J., Dalgaard, T. & Fenhann, J. (2001). Kvantificering af tre tiltag til reduktion af landbrugets udledning af drivhusgasser. DJF-rapport Markbrug 48. (http://web.agrsci.dk/djfpublikation/djfpdf/djfm48.pdf , in Danish).

The GGA was augmented in 2010 by the Green Growth Agreement 2.0, containing a series of initiatives to improve agriculture and food sector growth conditions and thus help to secure employment on farms, in the food industry and downstream industries. Furthermore, the GGA 2.0 supported the ongoing development of bioenergy with the aim of contributing to support Denmark's target of 30 per cent renewable energy by 2020 and fulfilment of Denmark's climate goals.

The GGA contains targets with respect to discharges of nitrogen and phosphorus to the aquatic environment, protection of nature and biodiversity, development of renewable energy in the agricultural sector including biogas plant, reduction of harmful pesticides, development of the organic sector and strengthened initiatives within research and development within the agricultural and food sectors.

The GGA also dealt with the problems previously encountered in achieving the expected goals through the APAE III. The measures in the GGA likewise pursued the achievements of the objectives of the Nitrates Directive on reducing discharges of nitrogen and phosphorus, as the target in APAE III were included in the GGA target. Different from the former APAE's were also the switch from a target on N leaching from the root zone to a target on N discharge to the aquatic environment. As the GGA worked to implement the EU Water Framework Directive, some measures were targeted sub-catchment while some measures were general rules.

The initiatives incorporated in the GGA were projected to reduce the agricultural sector's overall emissions of greenhouse gases by about 800,000 tonnes of CO_2 equivalents annually. Of this, about 400,000 tonnes reduction were expected to be derived from a green, market-based re-structuring of nitrogen regulation.

2.4.3.7.2.4 Environmental Approval Act for Livestock Holdings

The Environmental Approval Act for Livestock Holdings was implemented on 1 January 2007, providing national minimum requirements for environmental protection (odour, ammonia, nitrate, phosphorous, landscape, etc.) when livestock holdings are established, expanded or changed. The purpose of the Act was also to ensure the use of best available techniques (BAT).

The measures covered by the Environmental Approval Act for Livestock Holdings in 2007 were:

- 300 m buffer zones around ammonia-sensitive areas where no extension of livestock farms can take place if such an extension would lead to increased ammonia deposition in natural areas vulnerable to ammonia.
- Demand for a general reduction of ammonia emissions relative to a production facility with the lowest ammonia emission norm: 2007: 15%, 2008: 20%, 2009: 25%.
- Demands for injection of animal slurry on black soil and grass within buffer zones (1 km from vulnerable natural areas and, from 2011, in the whole country).
- Demand for fixed cover on most new containers for solid manure and slurry tanks (if they are within a distance of 300 meter to neighbours or vulnerable natural areas).
- Environmental standards and limits for nitrate-leaching to surface waters and groundwater depending on vulnerability, e.g. denitrification capacity and standards for phosphorous surplus depending on soil type and drainage.
- Environmental standards and limits for maximum deposition of ammonia on vulnerable nature and maximum odour impact on neighbours and cities.

The effect of these measures on greenhouse gas emissions has not yet been quantified.

The Environmental Approval Act for Livestock Holdings was changed in 2011, and the environmental standards for ammonia were heightened trough several measures. The general reduction goal was increased to a reduction of 30%, the specific ammonia reduction requirements were introduced with a maximum for total deposition to certain ammonia sensitive areas. This replaced the 300 meter buffer zones. In general this led to an overall tightening of the ammonia reduction with local exceptions.

In 2017 the act was once again changed, introducing a new permit scheme based on the size and character of the floor area, where animals are kept. In this sceme the permit is expressed in square meters as opposed to the former sceme based on number of animals. The environmental standards for ammonia were maintained on the same level.

Finally the act has also been revised in 2023 to form the basis for implementing specific measurements to reduce greenhouse gasses from livestock production. As of may 2023 frequent removal of manure from pig houses is required corresponding to an effect of 0.16 million ton of CO_2e per year in 2030. In 2025 it is expected to also require a reduction of methane emissions from cattle corresponding to an effect of 0.16 million ton of CO_2e per year in 2030.

2.4.3.7.2.5 Political Agreement on a Food and Agricultural Package and the political Agreement on Targeted Regulation and subsequent agreements

In 2015 the Green Growth Agreement was replaced by the Political Agreement on a Food and Agricultural Package (FAP) which ensures better production conditions for farming, while at the same time handling a number of the key environmental challenges.

The agreement includes a diverse package of measures designed to make a shift in the way environmental regulation in the agricultural sector is carried out, from a general regulation to a more targeted approach. The fertilization standards for the agricultural sector was lifted to the level of economic optimum and a new targeted regulation based on specific environmental goals for the aquatic environment and ground water resources was introduced in 2019.

The re-establishment of wetlands, rewetting of organic soils and afforestation (conversion of arable land) remain important measures to reduce the loss of nitrogen to the aquatic environment. As a part of the FAP a comprehensive support scheme for catch crops was also introduced. The agreement also included changes to the regulation on the use of catch crops in Danish agriculture: a requirement of catch-crops as compensation for livestock-related nitrogen leaching and additional catch-crops as part of a targeted regulation. The aforementioned regulatory schemes on catch crops were implemented in addition to the already existing two other schemes, covering mandatory catch crops and catch crops as part of the EU requirement of environmental focus areas.

In 2018 an additional agreement on Targeted Regulation was agreed upon. In addition to catch crops measures such as energy crops, reduced fertilizer/manure application, fallow land etc. was introduced as a part of the scheme. Fonds were also allocated to develop technologies from biorefining from grass with the aim of commercializing green bio refining and thus increase the demand for grass and other crops with lower climate- and environmental footprint.

As a part of the Political Agreement on a Food and Agricultural Package, funds were also allocated for afforestation, environmental and climate technologies and conversion of arable land on organic soils to nature under the Danish Rural Development Programme funded by the European Agricultural Fund for Rural Development (EAFRD). As a part of the agreement on the national budget of 2020, an additional 35 mio. DKK have been allocated for afforestation purposes and 170 mio. DKK for investments at farm-level, including environmental and climate technologies.

In 2021, the Political Agreement on a Food and Agricultural Package (FAP) was replaced by the Agreement on a Green Transition of the Agricultural Sector (4 October, 2021). The agreement consists of directly implementable initiatives as well as initiatives with potential depending on research and demonstration activities.

Importantly, the agreement contains a binding reduction target for the agricultural and forestry sector of 55 to 65 percent CO_2e reduction in 2030 compared to the emissions in 1990. According to estimates when the agreement was reached, this equals a reduction of approximately 6 to 8 million tons CO_2e. A binding target implies that the reductions must achieved in one way or another, and it therefore requires that agriculture delivers a significant contribution to the national 70 percent reduction target in 2030 included in the Danish Climate Act.

According to estimates from when the agreement was reached, the initiatives in the agreement that are ready for implementation, are expected to deliver a total reduction in GHG-emissions of 1.9 million tons CO_2e by 2030. Part of the GHG-reductions will occur in the LULUFC-sector. The initiatives include restoration of peatlands (ambition of restoring 100,000 hectares), reduction of nitrogen emissions to the environment, greenhouse gas reducing requirements in the animal production sector and increased afforestation.

The agreement includes a number of development-initiatives, with potentials depending on research and demonstration activities. Collectively, they were – at the time when the agreement was reached – estimated to have the potential to reduce GHG-emissions by additionally 5 million tons CO_2e by 2030. The estimated effects of the agreement are under consolidation. The initiatives include research in methane reducing feed additives to livestock, more efficient handling of manure in farm and field, and further development of pyrolysis technology, which can transform agricultural residues into fuel and biochar. Moreover, research and development of a farm-level emissions model that will enable accounting and regulation of the emissions of greenhouse gasses from the individual farm is a part of the agreement.

Some of the initiatives of the agreement are implemented through the Danish Strategic CAP Plan 2023-2027. The reform of the EU's Common Agricultural Policy (CAP) offers many new opportunities for a more green agricultural production. A key element in the new CAP reform is a greater focus on green initiatives, where income support to farmers is used to give incentives to switch to more sustainable production and thus support the green transition of the sector.

With the agreement, Denmark fulfils the EU requirement that at least 25 percent of the budget for direct payments goes to green initiatives. Overall, almost DKK 27 billion (approximately EUR 3.6 billion), including DKK 4 billion (approximately EUR 0.5 billion) in additional national funds, are targeted towards the green transition of the agricultural sector. Six new support schemes (eco-schemes), as part of the direct payment system, were established, supporting environmentally and climate friendly farming practices, including organic farming area support.

2.4.3.7.2.6 Subsidy for conversion of arable land on organic soils to nature

Cultivated organic soils emits large amounts of CO_2. In Denmark approximately 46,000 hectares of organic soils (>12% organic carbon) were cultivated in 2022. With reference to the Danish soil classification, which defines soils with >6% organic carbon content as organic, there is approximately an additional 72,000 hectares under agricultural practise (a total of approx. 118,000 hectares in 2022)[43].

In 2014 the Danish Government adopted a subsidy scheme for conversion of arable land on organic soils to natural habitats under the framework of the common agricultural policy (CAP). This scheme is now a part of the Agreement on the Food and Agricultural Package.

The objective of the scheme is to reduce agricultural emissions of greenhouse gases from organic soils through less intensive agricultural operations. The initiative also offers opportunities for synergies in relation to reduced discharges of nitrogen into watercourses, lakes and fiords as well as for increased biodiversity. As a part of the Agreement on the Food and Agricultural Package the scheme was extended to 2020. The scheme was co-financed by the Danish rural development by the European Agricultural Fund for Rural Development (EAFRD).

In September 2019, an Agreement was made on establishing a Multifunctional Land Re-parcelling Fund 2019-2021. The objective was to facilitate re-parcelling of land and thereby obtain synergies between agricultural production and biodiversity, climate, environment, recreation and rural development.

In 2021, the Agreement on a Green Transition of the Agricultural Sector includes the ambition of restoring and rewetting 100,000 hectares of carbon rich peat soils including adjacent mineral soils before 2030 with the purpose of reducing both greenhouse gas and nitrogen emissions from agricultural soils and forests in Denmark. DKK 4.4 billion (approximately EUR 590 million) has been allocated to restore natural hydrology on 50,500 hectares of agricultural land, including previous political agreements, and another 38,000 hectares for extensive management.

2.4.3.7.2.7 Political Agreement on Nature

A Political Agreement on Nature (the Nature Package) was reached in May 2016 with the main aim of supporting an increased protection of biodiversity. The climate effect of this Agreement has not been estimated.

2.4.3.7.2.8 Bio-refining

Bio-refining can produce a range of products such as inputs to biogas production, protein and fodder and other higher value products for use in e.g. the chemical and pharmacological industry. As mentioned in chapter 4.3.4, the 1st allocation of the budget under the National Green Climate Fund in June 2017 included an earmarking of 8 million DKK as support in 2017 for pilot-scale bio-refinery projects based on non-food biomass. Commercialization of the bio-refining sector can facilitate demand for crops such as grasses with higher associated environmental and climate benefits than for conventional crops like corn or cereals. In addition, bio-refining is considered to be essential in realizing the bio-economy potential within Danish agriculture and other connected sectors.

In 2019, additional funds have been allocated through the National Green Climate Fund for promotion of green bio refining (see chapter 2.4.3.4).

[43] Beucher A, et al. 2023. Updating the Danish peatland map with a combination of new data and modelling approaches. Advisory report from DCA – Danish Centre for Food and Agriculture, Aarhus University, 66 pages. Submitted 19.12.2023. T_rv2022_Rapport_1912_2023rev.pdf (au.dk)

In 2021, DKK 260 million (approximately EUR 35 million) was allocated from 2022-2026 to a new support scheme for biorefining of grass in order to develop the production of new sources of plant-based protein for animal feed. Additional DKK 10 million (approximately EUR 1,3 million) were allocated to the schemes in 2023 to accomodate the demand for funds and increase the incentive to develop green bio-refining through funds.

2.4.3.7.2.9 Promotion of precision agriculture, i.e. fertilization.

Since 2021, the use of precision fertilization has been a general measure in the Danish nitrogen regulation. With the use of high-tech solutions such as remote sensing, high precision positioning systems, sensors and variable rate technologies cultivation is optimized resulting in less nitrogen leaching from the fields. There have been found to be positive climate mitigation effects from precision farming. However, more knowledge beyond the existing initiative is needed in order to quantify the effect.

2.4.3.7.2.10 Political agreement on implementation of "Agreement on a Green Denmark"

The Danish Government and several political parties from the parliament has reached an agreement for a long-term transition of Danish food and agricultural production, including land use. The agreement establishes a framework for reducing carbon emissions in the agri-food sector introducing the world's first carbon tax on agriculture, which will contribute to realising the Danish national climate target in 2030[44]. Furthermore, efforts will be made to improve conditions within nature, biodiversity, water environment, and drinking water, including through the establishment of a Green Area Fund to support the transition.

On 18 November 2024, the Danish government and several political parties from both sides of the aisle in the Danish parliament entered the *Political agreement on implementation of "Agreement on a Green Denmark"*[45]. The agreement paves the way for a Danish agri-food sector that can deliver tangible solutions to some of the imposing challenges related to climate and nature. The agreement introduces the world's first carbon tax on greenhouse gas emissions from livestock and peatland. The agreement also focus on change in land use, e.g. with the Green Area Fund, making more space for nature and creating better conditions for biodiversity and drinking water preservation.

The agreement builds on top of the green tripartite agreement of 24 June 2024 between the Danish government and leading industry, agricultural, and environmental organisations cf. Box 2.4(7). The key climate initiatives in the *Political agreement on implementation of "Agreement on a Green Denmark"* are:

- Reductions in greenhouse gas emissions on 1.8 million tons of CO_2e in 2030 and potential for 2.6 million tons in 2030. This leads the Danish agricultural sector to a 60 percent decrease in emissions from 1990 to 2030.
- A carbon tax - or more accurately a CO_2e tax - on emissions from livestock, with an efficient tax increasing from DKK 120 pr. ton CO_2e (EUR 16) in 2030 to DKK 300 pr. ton (EUR 40) in 2035. This includes a base reduction of 60 %.
- The proceeds from the livestock tax in 2030-31 are returned to the industry through a transition scheme that will strengthen the green transition of the industry. Use of proceeds will be revisited in 2032.
- The establishment of a new Green Area Fund of approximately DKK 40 billion (EUR 5.4 billion) to support efforts such as afforestation, rewetting of carbon-rich agricultural land, strategic land acquisitions and additional initiatives related to managing nitrogen reductions.
- The extraction from production of 140,000 hectares of carbon-rich agricultural land incl. peripheral areas and a tax on low-lying carbon-rich agricultural land.
- 250,000 hectares of afforestation, an area almost equivalent to the size of Luxembourg.
- The initiatives in the area fund will change 15 percent of the existing agricultural area into forests, rewetted areas etc.
- A subsidy scheme for the storage of biochar produced by pyrolysis. The initiative totals approximately DKK 10 billion (EUR 1.3 billion) until 2045.

The agreement includes measures that will enable a just and fast transition to support a strong and competitive agri-food sector. This will ensure attractive jobs and support business opportunities. It

[44] The 2020 Danish Climate Act sets a 2030 target of 70 per cent reduction in all domestic greenhouse gas emissions compared to emissions in 1990.

[45] https://mgtp.dk/media/iinpdy3w/aftale_om_implementering_af_et_groent_danmark_endelig.pdf

introduces a tax on carbon emissions from livestock from 2030 starting at DKK 300 pr. ton (EUR 40) CO_2e, increasing to DKK 750 (EUR 100) pr. ton CO_2e in 2035. However, a base deduction of 60 pct. will be added, which results in an efficient rate of DKK 120 pr. ton (EUR 16) CO_2e in 2030, increasing to DKK 300 pr. ton (EUR 40) CO_2e.

The agreement also introduces a tax on carbon emissions from carbon-rich agricultural lands (peatlands) on DKK 40 (EUR 5.4) by 2028. The purpose of the tax is to prime the farmers to take part in the rewetting of 140,000 hectares of carbon-rich agricultural land including peripheral areas.

The Green Area Fund consists of approximately DKK 40 billion (5.4 billion EUR) and will be established to support efforts, such as the planting of 250,000 hectares of new forest, rewetting of 140,000 hectares of carbon-rich agricultural land incl. peripheral areas. The Green Area Fund will also support strategic land acquisitions, and additional initiatives related to managing nitrogen reductions.

A subsidy scheme for the storage of biochar produced by pyrolysis will be established and is expected having an effect from 2027. The initiative totals approximately DKK 10 billion (EUR 1.3 billion) until 2045. The initiative is expected to storage 0.3 million tonnes of greenhouse gas in 2030 with a potential for up to 0.6 million tonnes.

The partners also agree on the necessity of ramping up the efforts to develop and mature new climate technologies and initiatives. Furthermore, reduction must be documented and accounted for in the national emissions inventory.

The initiatives presented in the agreement are expected to close the emission gap related to the Danish national climate target in 2030. Overall, it is estimated that the efforts will reduce Danish emissions by 1.8 million tons of CO_2e in 2030 and potential for 2.6 tons in 2030. The agreement will be revisited to guarantee the reduction of 2.2 million tons of CO_2e in 2030.

Box 2.4(7) THE DANISH 'GREEN TRIPARTITE' – A NEED FOR JOINT RESPONSIBILITY AND COMPREHENSIVE SOLUTIONS

A comprehensive and ambitious green transformation of the agri-food sector requires clever solutions and compromises. If the green transition is to succeed, all parties must take joint responsibility and arrive at a common understanding of challenges and potential solutions. Therefore, in December 2023, the Danish Government set up a green tripartite with the objective of finding a comprehensive solution for the future of agriculture in Denmark through dialogue, common thinking and joint commitments.

The green tripartite has drawn inspiration from the Danish tripartite tradition of the labour market. It has brought together agricultural business organisations, environmental and nature organisations, the social partners and the Danish Government.

The green tripartite consists of the Danish Government (the Social Democratic Party, the Liberal Party, and the Moderates) and the Danish Agriculture and Food Council, The Danish Society for Nature Conservation, The Trade Union NNF, The Danish Metal Workers Union, Danish Industry, and KL - Local Government Denmark. The Danish Government has been represented in the green tripartite by the Minister for Economic Affairs, the Minister for Taxation, the Minister for the Environment, the Minister for Climate, Energy and Utilities and the Minister for Food, Agriculture and Fisheries.

On 28 June 2024, the Danish Government and several political parties from the parliament has reached an agreement for a long-term transition of Danish food and agricultural production, including land use.

In November 2024 the Danish government and several political parties from both sides of the aisle has made the next step to realise the green tripartite agreement. The combination of the green tripartite and the broad parliamentary agreement builds on a Danish tradition of finding broad-based and long-term solutions to key issues, including climate and environmental challenges.

The green tripartite agreement has been the foundation for the parliamentary Political agreement on implementation of "Agreement on a Green Denmark" signed on the 18th of November 2024.

Although this measure addresses greenhouse gas emissions in both the agricultural sector and the LULUCF sector, the description of the measure is only included in this chapter under Agriculture.

Table 2.4(21) Measures in agriculture, forestry and fisheries (See also Table 2.4(24) LULUCF)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
7-AG-04f: Environmental Approval Act for Livestock Holdings	The measures covered by the Environmental Approval Act for Livestock Holdings are: • 300 m buffer zones around ammonia sensistive areas where no extension of livestock farms can take place if such an extension would lead to increased ammonia deposition in natural areas vulnerable to ammonia. • Demand for reduction of ammonia emissions relative to production facility with lowest ammonia emission norm: 2007: 15%, 2008: 20%, 2009: 25% • Demands for injection of animal slurry on black soil and grass within buffer zones (1 km from vulnerable natural areas). • Demand for fixed cover on most new containers for solid manure and slurry tanks (depending on distance to neighbours and vulnerable natural areas). • Reduced number of Livestock Unit per hectare (LU/ha) when in nitrate vulnerable areas with low denitrification capacity • Regulation of phosphorous surplus on manure spreading areas	6_39: Reduction of fertilizer/manure use on cropland, 6_40: Improved livestock management, 6_42: Improved animal waste management systems	Regulatory	Implemented	Agriculture	CH4, N2O	2007	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-06: Biogas plants - reporting of annual mandatory leak detection and repair	In 2019, a targeted effort to reduce methane emissions from Danish biogas plants was initiated. The findings from the project showed higher emissions than formerly assumed from the production of biogas. This resulted in the formulation of new regulation, which was put into effect January 1st 2023. The regulation dictates the reporting of annual mandatory leak detection and repair to the Danish Energy Agency, regular self-monitoring, as well as a 1 % limit on methane loss from upgrading facilities. It is expected that a new campaign to measure the effect of the regulation will take place in 2025.	6_42: Improved animal waste management systems, 1_01: Increase in renewable energy sources in the electricity sector, 1_03: Switch to less carbon-intensive fuels	Regulatory	Implemented	Agriculture, Energy	CH4	2023	The Danish Energy Agency	NE	NE
7-AG-13: Agreement on Nature (the Nature Package)	Political agreement aiming, amongst other goals, towards an increased protection of biodiversity. The agreement states initiatives within the following areas: Converting forests for biodiversity purpose, continued agreements for nature, nature and biodiversity, urban nature and outdoors recreation, open land management and the farmer's role as resource manager, modern nature conservation, and simplification of legislation.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture, LULUCF	CO2, CH4, N2O	2016	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-15: Pool for the promotion of biogas and other green gases by tender	The Climate Agreement introduces an aid scheme for the production of "biogas and other green gasses." According to the Climate agreement, the aid scheme will consist of six successive competitive bidding processes based on clear, transparent and non-discriminatory criteria, where producers of biogas and gasses based on renewable energy sources compete for the aid. The aid will be granted as operating aid for a period of 20 years in the form of a price premium in addition to the market price of the gas produced. The bids will be assessed based on the premium and the offered volume . Fully implemented in 2030 the scheme aims at reducing emmission by 0,7 mil. tonnes CO2e/yearly by producing 10 PJ biogas and e-methane.	6_42: Improved animal waste management systems, 1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector	Economic	Adopted	Agriculture, Energy	CH4	2024 (expected)	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-16: Separate nitrogen standards for humus soils	In 2020 a separate standard has been established for humus soils, which implies that nitrogen standard for crops and grass in rotation is reduced by 25 or 50 kg / N per hectare depending on crop type.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture	N2O	2020	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-17: Adjustment of utilization requirements for livestock slurry and manure	In 2020 the utilization requirements in the DK Fertilizer Order has been adjusted, so that a larger share of the amount of nitrogen applied from livestock slurry and manure must count towards compliance with the farmers nitrogen quota.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture	N2O	2021	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-18: Prohibition of fertilization and spraying, etc. on §3 areas (Protected areas)	In 2020 a ban of fertilization and spraying on §3 protected areas was adopted. The proposal aims to ensure that spraying, fertilizing and plowing no longer take place on a number of meadow areas with a total area of 37,000 hectares, which are covered by the Nature Conservation Act.	6_41: Other activities improving cropland management	Regulatory	Adopted	Agriculture	N2O	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-19: Subsidy for biogas (for transport and processes)	The aid scheme for biogas towards transport and process was introduced with the Energy Agreement of 2012. In order to comply with the scheme requirements, biogas sold for direct use in the transport sector can not be produced from energy crops. Furthermore, recipients must live up to national and RED2 sustainability requirements and reporting obligations. As of January 1st 2020, the scheme was closed for new applicants and a production-based cap on potential aid was introduced. The aid scheme can go until 2032 and at least 20 years for the individual scheme recipients.	6_42: Improved animal waste management systems	Economic	Implemented	Agriculture, Energy	CH4	2012	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-20: Subsidy for upgrading and purification of biogas	The aid scheme for biogas towards upgrading and purification of biogas was introduced with the Energy Agreement of 2012. In order to comply with the scheme requirements, recipients must live up to national and RED2 sustainability requirements and reporting obligations. As of January 1st 2020, the scheme was closed for new applicants and a production-based cap on potential aid was introduced. The aid scheme can go until 2032 and at least 20 years for the individual scheme recipients.	6_42: Improved animal waste management systems	Economic	Implemented	Agriculture, Energy	CH4, CO2	2012	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-22: Ecological area support (Ecoscheme)	One-year scheme supporting both the conversion towards and maintenance of organic farming of agricultural land, in order to reach a doubling of the organic land in 2030.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-23: Environmentally and climate-friendly grass (Ecoscheme)	One-year scheme supporting the postponement of ploughing of grasslands which achieves an environmental and climate effect on the individual area. Furthermore, it contributes to improved microbiology and soil fertility.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-24: Plants (Ecoscheme)	One-year scheme promoting greater crop diversity in agriculture by supporting increased crop diversification and the cultivation of rotational crops (mainly used for food and protein crops).	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE

Table 2.4(21) Measures in agriculture, forestry and fisheries (See also Table 2.4(24) LULUCF) (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
7-AG-25: Biodiversity and sustainability (Ecoscheme)	One-year scheme supporting the laying out of non-productive agricultural areas to provide more habitats for animals and plants. The subsidy builds on the GLM8 requirement of at least 4 per cent. non-productive areas on arable lands.	6_45: Other agriculture. , 7_56: Other land use, land-use change and forestry	Economic	Adopted	Agriculture, LULUCF	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-26: Implementation of "targeted regulation"	The "targeted regulation" is a two-part regulatory scheme related to the objectives of the Water Framework Directive; a voluntary subsidy scheme focused on the reduction of nitrate leaching from agricultural soils through the use of a variety of measures, and - in the event of a lack of voluntary effort - a requirement to establish the measures without compensation will be imposed. The nitrate reducing measures will cause derivative effects on greenhousegas emissions. This encompasses reductions of indirect nitrous oxide emissions and increase of carbon sequestration in soil.	6_39: Reduction of fertilizer/manure use on cropland, 6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems, 6_43: Activities improving grazing land or grassland management, 6_44: Improved management of organic soils	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-28: Environmental and climate technology	Subsidy for investment in environmentally and climate-friendly technologies on the farm - such as subsidies for methane reducing feed additives (the effects shown).	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	160	440
7-AG-29: Organic investment support	Subsidies for investments in new technologies, in order to improve the competitiveness of organic farming, strengthen efforts to improve the climate, and contribute to the national effort to double the organic area.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-30: Collective actions measures to reduce nitrogen emissions	Consists of four voluntary subsidy schemes that contribute to reducing nitrogen emissions into Danish waters (restoration of nitrogen wetlands, restoration of mini-wetlands, afforestation and restoration of peatland). The estimated effects stem from efforts since the adoption of the Agreement on Agriculture in 2021.	6_44: Improved management of organic soils, 7_54: Prevention of drainage or rewetting of wetlands	Economic	Adopted	Agriculture, LULUCF	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	310	640
7-AG-31: General reduction requirement for cattle	Reduction requirements regarding methane from cattle via increased fat in cattle feed or use of new measures such as feed additives, e.g. Bovaer.	6_40: Improved livestock management	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4	2021	The Ministry of Food, Agriculture and Fisheries	170	160
7-AG-32: More frequent discharge of pig manure	Reduction of greenhouse gas emissions from pig manure via requirements for more frequent discharge of manure from pig barns to an outdoor cooler storage or biogas plant, which reduces emissions.	6_40: Improved livestock management	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4	2021	The Ministry of Food, Agriculture and Fisheries	150	170
7-AG-33: CAP-law	Authorization Act that brings together existing legislation and implements EU's agricultural policy from 2023. In the act, authorization is given to determine basic requirements and establish eco-schemes.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-34: Implementation of EU's agricultural policy	Implementation of the overall milestones in the Danish strategic CAP plan. The strategic CAP plan was submitted to the Commission in December 2021 and approved by the Commision on 31 August 2022. Only the estimated effects in Denmark of the reform of the EU Common Agricultural Policy (CAP) are shown.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Other (Voluntary/negotiated agreements), Information, Regulatory, Economic	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	380	380
7-AG-35: Conditionality (GLM-requirements)	Good agricultural and environmental conditions (GLM) are the basic requirements (baseline) that a farmer must meet in order not to get his agricultural support received from pillar I reduced as well as area payments from pillar II. The requirements apply from 2023.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Economic	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.8 LULUCF (Land-Use, Land-Use Change and Forestry)

2.4.3.8.1 CO_2 – emissions and removals in the LULUCF sector

The emission of GHGs from the LULUCF sector (Land Use, Land Use Change and Forestry) includes primarily the emission of CO_2 from land use and small amounts of N_2O from disturbance of soils not included in the agricultural sector.

The LULUCF sector is subdivided into six major categories:

- Forest
- Cropland
- Grassland
- Wetlands
- Settlements
- Other Land

Forests and forestry are important due to CO_2 sequestration and emissions as a consequence of trees growing, respiring and decomposing. Danish forests contain a considerable store of CO_2 absorbed from the atmosphere. When new forests are established, new CO_2 stores are created. Afforestation is therefore a useful climate policy instrument.

The total sector has been estimated to be a net source in most years in the period 1990-2022 – except in 2015 and 2022 – with a declining trend towards net zero emissions, especially since 2007.

Under this trend, net emissions/removals from the sector also fluctuate based on specific conditions in the given year. In general, the forest sector is a net sink or around in its equilibrium state, while Cropland and Grassland are net sources. The latter due to a large area with drained organic soils.

Forest has shown to be a sink for all years since 1990. In 2022, forest has been estimated to be a net sink of 3352 kt CO_2 equivalents. In 2022, Cropland has been estimated to be a net source of 616 kt CO_2 equivalents. Grassland was an even bigger net source in 2022, where emissions were estimated at 1966 kt CO_2 equivalents due to a large area with drained organic soils. Emissions from Cropland and Grassland have shown a continuous decrease since 1990. However, large variations occur between years as shown in Table 2.4(22).

In addition to the policies and measures described in this chapter, the recently adopted measure *The Political agreement on implementation of "Agreement on a Green Denmark"* also addresses greenhouse gas emissions in the LULUCF sector. The description of the measure is, however, only included under Agriculture in chapter 2.4.3.2.7.10.

Table 4.22 Total greenhouse gas emissions in the LULUCF sector from the base year 1990 to the latest reported year 2022.
Source: Nielsen at al. (2024a) - Denmark's National Inventory Report 2024 and CRF for 1990-2022.

Total greenhouse gas emissions*	Base year	1990	1995	2000	2005	2010	2015	2019	2020	2021	2022	Change from base to latest reported year
	(kt CO_2 eq)											%
4. Land use, land-use change and forestry	6694	6694	5317	5087	4971	2361	-95	1531	1292	198	-381	-106
A. Forest land	-1201	-1201	-1209	-1253	-878	-2185	-3979	-2408	-2104	-2867	-3352	179
B. Cropland	5009	5009	3928	3808	3348	2336	1468	1678	1187	626	616	-88
C. Grassland	2335	2335	2217	2099	2001	1885	2111	2016	1995	2068	1966	-16
D. Wetlands	102	102	76	76	98	81	79	107	125	135	142	39
E. Settlements	451	451	422	331	288	269	399	222	207	292	345	-24
F. Other land	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
G. Harvested wood products	-2	-2	-116	26	113	-25	-172	-85	-118	-56	-98	4037
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0

* In this table, the signs for removals in kt CO_2 eq. are negative (-) and for emissions in kt CO_2 eq. positive (+). In the column showing percentage changes, the signs for decrease in emissions or removals are negative (-) and for increase in emissions or removals positive (+).

Forest policies
For more than 30 years climate change has been mitigated through long-term goals and measures for increased forest cover in Denmark.

In 1989, a legislative proposal for a new Danish forest act referred to a long-term goal of doubling the Danish forest cover to approximately 25 pct. of the land area in the course of a tree generation.

In 2002, the first Danish National Forest Programme set out the long-term objective that forest landscapes should cover 20-25 pct. of Denmark in the course of 80-100 years. These objectives and measures relates to Article 3.3 of the Kyoto Protocol. Various measures have been taken towards achieving the goals as shown in Table 4.25. For instance, a government grant scheme has been established as an incentive for afforestation on private agricultural land. Also, the state itself is establishing new forests, and some private individuals are establishing forests on agricultural land without a government grant. Through rural planning and differentiated incentives, afforestation is particularly encouraged in certain priority areas in order to pursue multiple forest functions and values, implementing the water framework directive and including recreation and ground water protection.

In October 2018, the Danish Ministry for Environment and Food launched a new National Forest Programme. It sat out a long-term vision and two long term goals related to expansion of forest cover and biodiversity conservation, 13 strategic orientation lines as well as a number of concrete actions for a multifunctional and sustainable development of Danish forests.

The programme includes a vision for a forest area in growth with healthy and robust forests, which accommodate diversity and provide good opportunities for sustainable timber production and the creation of jobs. The forests should also provide good opportunities for biodiversity, preservation of natural treasures, mitigation of climate change, groundwater protection and offer great outdoor experiences - in new and old forests and for the benefit of both present and future generations.

The programme's long-term goal for forest cover builds on the goal established in the national forest programme of 2002 and reads: "Before the end of the 21st century, forested landscapes will cover 20-25 pct. of Denmark's total area". Thus, the goal relates to "forest landscapes", which constitutes all forests and some surrounding areas as well. However, a precise definition of forest landscapes has not yet been developed. The Danish forest area is currently 14.9 pct. of the land cover.

Many strategic orientation lines relate to climate and energy, most notably those below.

Under the header “More forest and less global warming”:
- Increase the Danish forest area and increase the public utility of the new forests.
- Increase the uptake and stocks of carbon in forests and wood products through sustainable management.

Under the header “Sustainable production”:
- A favourable and clear framework for sustainable production of timber and other goods.
- Increase the demand and supply of documentable sustainable timber.
- Uniform, robust and operational criteria for "sustainable timber".
- Continue the conversion and development of close to nature forestry.

As part of the Common Agricultural Policy Reform 2022-2027, DKK 600 million has been allocated to afforestation. The scheme is expected to contribute to climate change mitigation by reducing greenhouse gas emission and enhancing carbon sequestration, as well as promoting sustainable energy. The scheme is a continuation of the afforestation support scheme in the Rural Development Programme 2014-2020.

In 2022, the government announced in its government platform that it will present an ambitious forest plan for the establishment of 250.000 hectares of new forest in Denmark. Establishment of new forests will contribute to reaching climate neutrality and, in time, net negative emissions. The forest plan shall ensure the greatest possible synergy and balance between the many purposes for new forests and identify key partners and already existing funds as well as consider appropriate means of implementation. This must be done in parallel with the preparation of a vision plan for agricultural development. Financial contributions to the forest plan and afforestation will be provided through a newly established green Danish fund and from private actors. In 2024, the government and a coalition of parties in parliament agreed to allocate DKK 625 million for afforestation. The environmental- and climate effects depend among other things on the type of forest that is planted, and the government and the agreement parties will now look into how the funds will be allocated.

Harvested wood products (HWP)

Carbon net emissions from harvested wood products (HWP) have been reported since 2013. Denmark has chosen to report under Approach B, the production approach, which refers to equations 12.1, 12.3 and 12.A.6 of volume 4 of the 2006 IPCC Guidelines and the 2013 Supplementary GPG.

The HWP estimation for 2022 is shown in Table 2.4(23).

Table 2.4(23) HWP in use from domestic harvest in 2022 (CRF table 4.Gs1).
Source: Nielsen at al. (2024a) - Denmark’s National Inventory; March 2024 and CRF for 1990-2022.

	HWP in use from domestic harvest				Net emissions/ removals from HWP in use
	Gains	Losses	Half-life	Annual Change in stock (ΔC HWP IU DH)	
	(t C)		(yr)	(kt C)	(kt CO_2)
HWP produced and consumed domestically (ΔC HWPdom IU DH)					
Total	**150,062**	**-118,933**		**31**	**-114**
1. Solid wood	150,062	-118,928		31	-114
Sawn wood	42,095	-64,841	35	-23	83
Wood panels	107,967	-54,087	25	54	-198
2. Paper and paperboard	IE	-6	2	0	0
HWP produced and exported					
Total	**25,807**	**-30,238**		**-4**	**16**
1. Solid wood	25,807	-30,228		-4	16
Sawn wood	6,002	-11,834	35	-6	21
Wood panels	19,805	-18,394	25	1	-5
2. Paper and paperboard	NA	-10	2	0	0

Land policies - other than forest policies

For agriculture, the following potential sources of CO_2 emissions and CO_2 sequestration have been included:

1. Net change in the content of carbon in mineral soils in connection with changed land use and cultivation.
2. Net change in the soil's carbon stock in connection with drainage and cultivation of organic soils or re-establishment of wetlands.
3. Change in the carbon content of wood biomass in wind breaks and fruit farms.

One of the measures with an effect on return of carbon to the soil has been the ban on burning of straw residues on fields as shown in Table 4.25.

The ban has resulted in greater return of carbon to the soil, and therefore increased carbon storage in the soil, as well as increased use of straw as a fuel. Both uses will result in a net reduction in CO_2 emissions. Not burning straw prevents the methane and nitrous oxide emissions associated with the burning. On the other hand, there are some emissions of nitrous oxide in connection with the return of nitrogen to the soil when the straw is mulched.

The measure works by regulating behaviour, and the ban was introduced from 1990. The measure was implemented in the form of a statutory order under the Environmental Protection Act. Ban on field burning is a part of cross compliance under EUs Common Agricultural Policy.

Requirements to grow catch crops in the autumn to reduce nitrate leaching also leads to CO_2 sequestration. In 2022, the area with catch crops constituted approximately 530,000 hectares or approximately 20% of the agricultural area.

Another measure which will increase sequestration in woody biomass is the planting of windbreaks also mentioned in Table 4.25. The objective of planting windbreaks has primarily been to reduce wind erosion and ensure greater biodiversity. Planting of windbreaks has been supported under conditions described in the Statutory Order on Subsidies for Planting Windbreaks and Biotope-improving Measures (Statutory Order no. 1101 of 12/12/2002). Support has been granted under the EU Rural Districts Programme. For the period 2017-2019 windbreaks were established under the political agreement of May 2016 called “Naturpakken” where greater biodiversity was the main objective. Since the end of the 1960s about 1,000 km of tree-lined windbreaks have been planted with government subsidies. It is also estimated that about 30% more has been planted without subsidies. Estimates indicate that planting of windbreaks leads to CO_2 sequestration in woody biomass of about 130,000 tonnes CO_2/year[46].

The Danish CAP Strategic Plan (2023-27) also provides support for measures that may increase carbon sequestration in the soil, such as maintenance of grass land, catch crops, intermediate crops, early sowing of winter crops, fallow land and perennial energy crops.

In Table 2.4(24), an overview of implemented and adopted relevant policies and measures in LULUCF sector is shown.

[46] Gyldenkærne et al, 2005: Gyldenkærne, S., Münier, B., Olesen, J.E., Olesen, S.E., Petersen, B.M. & Christensen, B.T. (2005). Opgørelse af CO_2-emissioner fra arealanvendelse og ændringer i arealanvendelse. Arbejdsrapport fra DMU.

Table 2.4(24) Measures in the Land-use, Land-use change and Forestry sector (LULUCF)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
8-LU-01: Ban on burning straw on fields	One of the measures with an effect on return of carbon to the soil has been the ban on burning of straw residues on fields. The ban has resulted in greater return of carbon to the soil, and therefore increased carbon storage in the soil, as well as increased use of straw as a fuel. Both uses will result in a net reduction in CO2 emissions. Not burning straw prevents the methane and nitrous oxide emissions associated with the burning. On the other hand, there are some emissions of nitrous oxide in connection with the return of nitrogen to the soil when the straw is mulched. The measure works by regulating behaviour, and the ban was introduced from 1990. The measure was implemented in the form of a statutory order under the Environmental Protection Act, and compliance is monitored by the local authorities. The objectives are conservation of carbon in agricultural soils and reduction of air pollution.	7_55: Restoration of degraded lands, 6_44: Improved management of organic soils	Economic	Implemented	LULUCF, Agriculture	CO2	1989	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-04: Public afforestation (state and municipalities)	The majority of new public forests are stateowned. The purpose of new state forests is to establish resilient and multifunctional forests, e.g. recreational nature close to cities/users, groundwater protection, carbon storage, nutrient reduction and support biodiversity in generel. The projects are etablished as a collaboration between state, municipalities and (often) waterworks - who each contributes financially. The Danish Nature Agency etablish approximately 300 hectares each year. On-going implementation through annual budgets.	7_46: Afforestation and reforestation	Regulatory, Other (Voluntary/negotiated agreements)	Implemented	LULUCF	CO2	1989	Ministry of Environment of Denmark	NE	NE
8-LU-08: Establishment of the Danish Climate Forest Fund to support climate efforts	The Danish Climate Forest Fund is an independent, governmental administrative unit under the Danish Ministry of the Environment. The fund was adopted by Danish law in 2020 and established in 2021. The purpose of the fund is to support the Danish climate policy by cost-efficiently enhancing carbon removal by afforestation as well as by reestablishment of wetlands on organic soils funded by donations from private companies, funds, citizens and government departments.	7_46: Afforestation and reforestation, 6_44: Improved management of organic soils, 7_55: Restoration of degraded lands	Economic	Implemented	LULUCF, Agriculture	CO2, N2O	2021	Ministry of Environment of Denmark	NE	NE
8-LU-11: Subsidy for restoration of peatland (CAP+national)	Reduction of greenhouse gas emissions from carbon-rich low-lying soils by reverting the soils, herreafter the natural water level will be restored and the wetlands reestablished - which reduces CO2 emissions.	7_54: Prevention of drainage or rewetting of wetlands, 7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	CO2	2020	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-12: Extensification of carbon rich soils (Ecoscheme)	Promotion of an extensive use of carbon-rich peat soils or associated areas by removing biomass and enforcing a ban on fertilization. Thereby preparing the soils for a possible later rewetting. The effects shown stem from setting aside 22 000 ha of low-lying soils including peripheral areas.	7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	40	330
8-LU-13: Private afforestation	The scheme support afforestation on agricultural areas owned by private parties or municipialities. The scheme aims at reducing nitrogene leakage in water bodies and contributes in reducing CO2 emissions.	6_44: Improved management of organic soils, 7_46: Afforestation and reforestation	Economic	Adopted	LULUCF, Agriculture	CO2, N2O	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-14: Temporary reduction in logging	Temporary reduced harvesting in state owned forest during 2026 to 2031.	7_47: Conservation of carbon in existing forests	Regulatory	Adopted	LULUCF, Agriculture	CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-15: Permanent extensification	Compensation for permanent extensification of agricultural land (all types of land) and enforcing a ban on fertilization. Thereby preparing the soils for a possible later rewetting and nature restoration. The effects shown stem from setting aside 22 000 ha of low-lying soils including peripheral areas.	7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	N2O, CH4, CO2	2025	The Ministry of Food, Agriculture and Fisheries	NA	300

* All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.
** See further explanations of notation keys in the note to Table 2.4(25).

2.4.3.9 Waste

Emissions of greenhouse gases from waste originate from either the general waste sector, or the wastewater treatment sector, with the general waste sector being the most dominant contributor.

The direct contribution of the waste sector (excluding incineration of waste) to greenhouse gas emissions consists primarily of methane from the decomposition of biogenic waste. Out of the total greenhouse gas emissions from the waste sector of 1.2 million tonnes CO_2 equivalents in 2022 – corresponding to 2.9 pct. of total Danish greenhouse gas emissions – the proportion from landfills was 34 pct., from compost production 10 pct., from wastewater treatment 17 pct., from biogas plants 37 pct. and 2 pct. from other minor sources such as accidental fires. Greenhouse gas emissions from wastewater treatment included both methane (40 pct.) and nitrous oxide (60 pct.) in 2022.

In 2012, Denmark produced approximately 10.3 mio. tonnes of waste. About 65 pct. was utilized through material recovery, 31 pct. was incinerated, and 4 pct. ended up in a landfill. In 2021, the total amount of waste produced in Denmark increased to 12.4 mio. tonnes, of which 74 pct. was utilized through material recovery, 23 pct. was incinerated, and 4 pct. was landfilled. Both the amount of waste incinerated and deposited has decreased and the material recovery was increased.

Table 2.4(25) shows the climate relevant measures implemented in the waste sector.

2.4.3.9.1 CH_4 (methane) and N_2O (nitrous oxide) emissions from biowaste and landfills

Biowaste

Biowaste, which consists of food and garden waste, produces methane and nitrous oxide as it decomposes, both potent greenhouse gasses contributing to global warming. In recent years, Denmark has implemented separate sorting and collection of biowaste nationally. The Danish EPA is currently investigating the best practice for handling garden waste in order to reduce GHG emissions.

Landfills

Denmark has long been one of the frontrunners for reducing the amount of waste landfilled. This includes a regulatory ban on landfilling of incinerable waste and taxes on landfilling. The level of landfilled waste in Denmark is significantly lower than the current EU average and lower than 10 pct. landfilled waste target for 2035 as defined in the Landfill Directive. Despite the low landfilling rate in Denmark, efforts to reduce methane emissions from landfills are ongoing. The Technical University of Denmark has established a viable methodology for documentation of greenhouse gas emissions reductions achieved through the installation of a bio-cover system on landfills. Furthermore, methane generated from waste in some Danish landfills gets collected (to the extent possible) in dedicated gas collection systems and is used for energy generation. A reduction in methane emissions to the atmosphere is thereby achieved.

2.4.3.9.2 CH_4 (methane) and N_2O (nitrous oxide) emissions from wastewater

The Danish wastewater treatment sector was responsible for 143.499 tons of CO_2e emissions in 2022. The main contribution from the sector is related to the nitrous oxide emissions from the treatment process, which accounts for 68 pct. of GHG emissions from the entire sector. In 2020 it was politically agreed to introduce limit values for nitrous oxide in the sector. The Danish Environmental Protection Agency is in the process of establishing the knowledge basis on which the limit values for the GHG-emissions from wastewater will be established. The emissions from wastewater treatment can be reduced by covering the treatment plants and adjusting and controlling wastewater treatment. Minor contribution to GHG-emissions from the wastewater sector originates from methane emissions from private septic tanks and nitrous oxide emissions from surface water or peripheral sectors such as aquaculture.

Table 2.4(25) Measures in the waste sector

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
9-WA-01: A ban of landfill of combustible waste.	In 1996 the Statutory Order on Waste was amended to introduce an obligation for municipalities to assign combustible waste to incineration (corresponding to a stop for disposal of combustible waste at landfills) from 1 January 1997. As a result of this, large quantities of combustible waste that used to be disposed of at landfills are now either recycled or used as fuel in Danish incineration plants.	5_35: Waste incineration with energy use, 5_37: Reduced landfilling	Regulatory	Implemented	Waste management	CH4	1997	Municipalities	NE	NE
9-WA-02: The waste tax	A tax is imposed on waste for incineration or landfilling. The taxes are DKK 475 per tonne for landfilling and DKK 60,9/GJ for incineration.	5_37: Reduced landfilling	Economic, Fiscal	Implemented	Waste management	CH4	1987	Danish Ministry of Taxation	NE	NE
9-WA-03: Weight-and-volume-based packaging taxes	Weight-and-volume-based taxes (e.g. on various packaging, carrier bags and PVC film) encourage a reduction in packaging consumption and thus the quantities of waste. The weight-based tax is based on an index that reflects the environmental burden of the materials used.	5_30: Demand management/reduction	Economic, Fiscal	Implemented	Waste management	CO2, CH4	2014	Danish Ministry of Taxation	NE	NE
9-WA-06: Implementation of the EU landfill directive	On the basis of the EU Landfill Directive, demands on the establishment and operation of landfills in Denmark have been tightened with Statutory Orders No. 650 of 29 June 2001, No. 252 of 31 March 2009, No. 719 of 24 June 2011 and No. 1049 of 28th of August 2013 on landfills. According to the Statutory Orders on landfills, methane in landfills for mixed waste must be monitored. From landfills where significant amounts of biodegradable waste are disposed of, methane gas must be managed in an environmentally-sound way.	5_34: Improved landfill management	Regulatory	Implemented	Waste management	CH4	1999	The Environmental Protection Agency	NE	NE
9-WA-09: Subsidy programme for biocovers on landfills	Biocovers is a technique that uses compost as a cover on landfills. The microorganisms in the compost increases the oxidation of methane in the top layer.	5_34: Improved landfill management	Economic	Implemented	Waste management	CH4	2017	The Environmental Protection Agency	NE	NE
9-WA-10: Prohibition of free plastic bags and thin plastic bags	As of 1 January 2021, the following carrier bags may not be handed out free of charge at points of sale for goods or products: - Plastic carrier bags with a handle that is thicker than 30 micrometers (eg ordinary carrier bags in supermarkets) - Plastic carrier bags without a handle that are thicker than 30 micrometers - Carrying bags with handles of materials other than plastic In addition, plastic bags thinner than 30 micrometers are completely prohibited. Plastic bags thinner than 15 micrometers with no handle are excempted from the ban.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Implemented	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-11: Triple the tax on carrier bags and disposable tableware	The tax on carrier bags and disposable tableware was trippled as of January 2020 with the aim of reducing consumption and waste.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Economic, Fiscal	Implemented	Waste management	CO2	2020	Danish Ministry of Taxation	NE	NE
9-WA-12: Requirements for the possibility of direct reuse at municipal recycling stations	All municipal recycling stations are obliged to make a designated spot available where citizens can hand in objects with the purpose of direct reuse of the objects. The objects should be made available first to private agents such as voluntary organisations and citizens.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	[2023 /2024]	Ministry of Environment of Denmark	NE	NE
9-WA-13(G): Streamlining the sorting of business household-like waste	The guidelines and criteria for the sorting of household-like waste from businesses are streamlined nationally and made mandatory and follows the sorting criteria for households for 10 wastefractions. The national wastepictograms for the 10 wastefraction of householdwaste must be used on the collectionbins (the bins collected by the wastecollector). The national guidelines, including the usage of waste pictograms, have been implemented in 2022.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2022	Ministry of Environment of Denmark	NE	IE
9-WA-14(G): Streamlining and mandatory collection schemes for household waste	The guidelines and criteria for the sorting and collecting of household waste are streamlined nationally and made mandatory. The national wastepictograms for the 10 wastefraction of householdwaste must be used on the collectionbins (the bins collected by the wastecollector). The national guidelines, including the usage of waste pictograms, must be imlemented and followed across all municipalities. For the following waste fractions separate collection are made mandatory: Food, paper, cardboard, metal, glass, plastic, textiles (as of 2023), carton packaging from food and drink, hazardouz waste, and general waste. There are possibility for combined collection of some fraction e.g. paper/cardboard, plastic/foodcartons and plastic/foodcartons/metal.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-15(G): Streamlining with mandatory collection scheme for household textile waste	As of 2023, it has been mandatory for the municipalities to include textile waste as a seperate waste fraction in the provided waste collections scheme. Regarding the implementation of the waste collection of textile waste it is important that voluntary organisations have easy access to textiles able to be reused.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2023	Ministry of Environment of Denmark	NE	IE
9-WA-16: Waste sorting in the public space	Waste sorting in the public space will be improved, especially in the public spaces with most people and most waste. A scheme for the collection of plastic waste in the public space will be implemented. The new and improved sorting and collection of waste in public areas will be implemented together with PPWR-initiatives on wast sorting medio 2026. It will be analyzed whether or not part of the waste managing in public spaces can be funded through waste fees.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2026	Ministry of Environment of Denmark	NE	NE

Table 2.4(25) Measures in the waste sector (continued)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
9-WA-17(G): Requirements for the municipalities on tenders for bulky waste schemes with re-sorting with regard to higher real recycling and reuse	Municipalities are required to specify in the tender for bulky waste schemes that a sorting must be carried out in order to achieve a high level of real recycling and preparation for reuse. The sorting will ensure that a lesser part of the bulky waste is incinerated.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-18: Demand for smaller losses in recycling plastic	The Executive Order on Waste stipulates that the municipalities must, as of 1 January 2022, set a requirement of 60 per cent actual recycling of the collected plastic waste when the waste is offered for treatment. The municipalities must ensure a high level of real recycling of all recyclable waste types.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2022	Ministry of Environment of Denmark	NE	NE
9-WA-19: Target of 50% reduction of certain plastic takeaway packaging by 2026	A target of 50 percent reduction of certain plastic take-away packaging in 2026 is set. The goal must initially be sought to be achieved through a binding agreement and collaboration with the restaurant industry. If the goal is not reached by binding agreement, further regulation must be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-20(G): National implementation of extended producer responsibility for packaging	The national implementation of the extended producer responsibility for packaging must be introduced no later than January 1st 2025. This will include all types of packaging in all types of materials. The extended producer responsibility must ensure that Denmark achieves the recycling targets for packaging in 2025 and 2030 by creating a strong financial incentive for reducing packaging, reusing packaging, and designing packaging that is easy to recycle and in high quality.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-21: Target of 50% sorting of plastic for recycling in the agricultural sector	As an initiative in the Danish climate agreement of June 2020 for a green waste sector and circular economy a sectoral coooperation with the agricultural sector has been established. The goal of the cooperation is to sort out 50% of plastic waste for reuse in 2025 from the aggricultural sector and 80% of plastic waste for reuse in 2030 from the aggricultural sector. As of 2020, approximately 25% of plastic waste from the aggricultural sector is reused. If the sectoral cooperation cannot document the necessary progress by the end of respectively 2023 and 2027 to achieve the goals, new iniatives will be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-22: Target of 50% sorting of plastic for recycling in the construction sector	As an initiative in the Danish climate agreement of June 2020 for a green waste sector and circular economy a sectoral coooperation with the construction sector will be established. The goal of the cooperation is to sort out 25% of plastic waste for reuse in 2025 from the construction sector and 75% of plastic waste for reuse in 2030 from the construction sector. If the sectoral cooperation cannot document the necessary progress by the end of respectively 2023 and 2027 to achieve the goals, new iniatives will be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-23: New model for waste management to ensure increased recycling	The new and improved Danish waste inspection will be targeted at the companies with the greatest risk of non-compliance, and where the environmental risk of not complying with the waste rules is the greatest.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-24: Productivity gain on increased recycling of plastics through the synergy effect between a clear framework for the sector, the market gaining access to both household and acquired waste and the increase and streamlining of waste streams	As a result of the Danish climate agreement of June 2020 for a green waste sector and circular econony a productivity gain on the increased recycling of plastics is expected. This is due to an expected synergy effect of the several initiatives in the agreement. This includes a clear framework for the sector, the market gaining access to both household and acquired waste and the increase and streamlining of waste streams.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-25(G): Ceiling over nitrous oxide emissions from large treatment plants	By political decision, limits for nitrous oxide emissions from treatment plants that treat waste water that is the equivalent of at least 30,000 people's effluent (PE) will be introduced from 2025 onwards. These limit values are introduced to ensure that the total effluent from waste water treatment drops by 50 percent compared to today. Based on preliminary experience, it will, no later than 2025, be discussed by the political parties whether this limit should also be introduced for treatment plants that treat waste water that is the equivalent of less than 30,000 PE. Nitrous oxide emissions from treatment plants is the main source of greenhouse gas emissions from the Danish waste water utilities, but ongoing projects indicate a potential for significant emission reductions by implementing improvement initiatives. This includes adjusting the advanced online control of the aeration and dosing of a carbon source as well as lowering of the specific ammonium loading, taking into account the nitrous oxide emission.	5_36: Improved wastewater management systems	Regulatory	Adopted	Waste management	N2O	2025	Ministry of Environment of Denmark	NE	IE
Group WA: WA13+WA14+WA15+WA17 +WA20+WA25+EN07	See the individual measures.	IE	IE	IE	IE	IE	IE	IE	NE	700

*All measures reported are included in the "with measures" projection scenario, in principle. In most cases not based on separate annual estimates for each mitigation action, but either as a result of the assumption that the measure has contributed to the observed level of total Danish greenhouse gas emissions in the most recent inventory year available, when the projection was elaborated and therefore used as the starting point for the projections, or as part of the integrated models used to project the level of annual greenhouse gas emissions in future years.

** For the individual mitigation actions included in the PaMs tables, in the "Estimate of mitigation impact" columns, the notation key NA (Not Applicable) is used in the 2025 and 2030 column respectively when the mitigation action is planned to be implemented later than 2025 respectively 2030. The notation key NE (Not Estimated) is used when the effect has not been estimated and IE if the effect is Included Elsewhere with a reference to a group of measures, where the effect of the individual measure reported is included in a combined estimate of two og more individual measures. It should be noted that WEM projection scenarios in Denmark are not calculated from the sum of the effects of individual mitigation actions, but based on integrated models. Therefore it is not possible attribute the total effect in WEM projection scenarios to all individual mitigation actions included in the projection. The WEM projection scenario from 2024 ("CSO24") is described separately in greater detail in Chapter 2.6.

2.4.3.10 Estimates of greenhouse gas emission reductions for the policies and measures - to the extent possible

To the extent possible, estimates of expected and achieved greenhouse gas emission reductions for the policies and measures described in this biennial transparency report, is included in the tabular formats above and in the tabular format reported in the Common Tabular Format (CTF, Table 5) cf. Annex B2.

For the groups of measures adopted in political agreements since the political agreement on a new Danish climate act was reached on 6 December 2019, the estimated effects are shown in Table 2.4(3).

To the extent available, information on the methodologies and assumptions used to estimate, to the extent possible, the greenhouse gas emission reductions or removals for the policies and measures described in this biennial transparency report is included in Annex B3.

The estimates included in Annex B2, are the opdated estimates included in the government's annual climate programme published in September 2024. A plan for the implementation of policies and measures adopted through political agreements and now under implementation was also included in Climate Programme 2024. This plan has been translated and included in Annex B4.

2.4.3.11 Actions, policies and measures that are no longer in place compared with the most recent biennial transparency report

According to the Modalities, Procedures and Guidelines for the reporting of Biennial Transparency Reports, actions, policies and measures that are no longer in place compared with the most recent biennial transparency report should be identified with an explaination as to why they are no longer in place.

As this biennial transparency report is the first biennial transparency report, it is not possible to make the required comparison. Hence, this reporting requirement is not applicable in this first biennial transparency report.

2.4.3.12 Actions that influence GHG emissions from international air transport and shipping

Denmark recognises that the international aviation and maritime transport sectors are large and rapidly growing sources of greenhouse gas emissions and have to be dealt with at all levels. Given the global nature of the two sectors, Denmark believes that the international organisations for civil aviation and maritime transport – the ICAO and the IMO – should decide, develop and implement appropriate global measures to control greenhouse gas emissions from international aviation and maritime transport in line with the 1.5°C long-term temperature goal of the Paris Agreement.

Denmark recognises that the international aviation sector is a large and rapidly growing source of greenhouse gas emissions that has to be dealt with at both national, regional and global level. Denmark further recognizes that the International Civil Aviation Organization (ICAO) has taken measures to reduce greenhouse gas emissions from the aviation sector by introducing the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and by adopting a long term aspirational goal (LTAG) for international aviation of net-zero carbon emission by 2050.

However, Denmark emphasizes that the measures taken by ICAO are insufficient and that ambition should be ramped up significantly. This includes by adopting more ambitious definitions and targets for sustainable aviation fuels (SAF) and by strengthening CORSIA. In that regard, Denmark highlights that with the recent Fit for 55-revision of the ETS directive, the EU stands ready to extend the application of the EU ETS to departing flights from the EEA to countries outside the EEA from January 2027 if the ICAO Assembly does not by 2025 strengthen the CORSIA scheme in line with achieving its long-term aspirational goal, towards meeting the Paris Agreement objectives, or if countries participating in CORSIA represent less than 70 % of international aviation emissions. Denmark therefore strongly calls on all ICAO member states to agree no later than at the ICAO Assembly in 2025 to significantly ramp up CORSIA's ambition level to meet these criteria.

Denmark welcomes that the IMO in July 2023 adopted the 2023 IMO Strategy on Reduction of GHG Emissions from Ships. The 2023 revision on the IMO GHG strategy significantly increase the levels of ambitions and brings them in line with the Paris Agreement's temperature goal.

Denmark has both in the preparatory work and during negotiations contributed actively to the work on developing of the 2023 IMO Strategy on reduction of GHG emissions from ships. Denmark has drafted submissions for ambitious climate regulation and argued the need for strengthening the levels of ambitions to ensure that international shipping takes its fair share of the global effort to be in accordance with the temperature goal of the Paris agreement. This must be done through global, flag-neutral solutions and regulation that ensure reducing global GHG emissions consistent with the IMO principles.

Denmark will in the coming years contribute actively to the work on implementing the IMO GHG strategy with the aim to develop an effective and enforceable global climate regulation, which ensures delivering on the targets.
Furthermore, Denmark recalls that IMO has in recent years adopted principles for climate regulation, especially the introduction of rules that increase ships' energy efficiency of both new and existing ships and the adoption of a global data collection system that charts the ships' fuel consumption. Denmark contributes actively to the ongoing discussions on the possibility to introduce a strengthened phase 4 of the agreed Energy Efficiency Design Index (EEDI).

2.4.3.13 Information about how its actions, policies and measures are modifying longer-term trends in GHG emissions and removals – to the extent possible

To the extent possible, information about how the actions, policies and measures described in this biennial transparency report are modifying longer-term trends in GHG emissions and removals is provided in this chapter.

As many of the actions, policies and measures described in this biennial transparency lead to changes in structures and the choices of technologies within the different greenhouse gas emitting sectors – e.g. substitution of fossil fuel based technologies with renewable energy based technologies in the energy and transport sectors – the emission reductions achieved in the short term will most likely be sustained and therefore also modify the longer-term trends in GHG emissions and removals.

2.4.3.14 Information on the assessment of economic and social impacts of response measures - to the extent possible.

To the extent possible, information on the assessment of economic and social impacts of response measures is included in Annex B3.

2.5 SUMMARY OF GREENHOUSE GAS EMISSIONS AND REMOVALS

As Denmark has chosen to report a stand-alone National Inventory Report, the greenhouse gas emissions and removals are summarized in a tabular format in this chapter as per paragraph 91 of the Annex to Decision 18/CMA.1. Emission trends by gas are shown in Table 2.5(1) and by sector in Table 2.5(2).

A detailed description by sector and by gas is provided in the National Inventory Document - NID (Nielsen et al., 2024), please refer to Chapter 2 of the NID.

Table 2.5(1) Emission trends by gas

Greenhouse gas emissions, kt	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
CO_2 emissions without net CO_2 from LULUCF	53464	64093	58315	60562	64661	61641	74887	65425	61226	58642
CO_2 emissions with net CO_2 from LULUCF	59796	69760	64891	65817	69440	66603	79138	70153	65873	63602
CH_4 emissions without CH_4 from LULUCF	9208	9479	9611	9875	9753	9849	9983	9886	9986	9867
CH_4 emissions with CH_4 from LULUCF	9502	9773	9904	10169	10046	10141	10274	10177	10275	10156
N_2O emissions without N_2O from LULUCF	7772	7541	7294	7009	6945	6922	6549	6571	6588	6483
N_2O emissions with N_2O from LULUCF	7839	7608	7359	7074	7010	6985	6610	6630	6645	6538
HFCs	NO,NA	NO,NA	4	101	144	238	370	372	499	637
PFCs	NO,NA	NO,NA	NO,NA	NO,NA	0	1	2	5	12	16
SF_6	39	63	89	101	120	108	63	68	66	65
Total (without LULUCF)	***70483***	***81176***	***75311***	***77648***	***81624***	***78758***	***91855***	***82327***	***78377***	***75709***
Total (with LULUCF)	***77177***	***87203***	***82247***	***83261***	***86761***	***84075***	***96458***	***87405***	***83370***	***81014***
Total (without LULUCF, with indirect)	***71638***	***82387***	***76495***	***78816***	***82749***	***79858***	***92952***	***83351***	***79373***	***76645***
Total (with LULUCF, with indirect)	**78332**	**88414**	**83431**	**84429**	**87886**	**85175**	**97555**	**88428**	**84366**	**81950**
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
CO_2 emissions without net CO_2 from LULUCF	54296	55886	55544	60638	55093	51527	59492	54698	51246	48840
CO_2 emissions with net CO_2 from LULUCF	59041	60123	60852	65705	59962	56164	64581	59956	55005	51880
CH_4 emissions without CH_4 from LULUCF	9842	10067	10019	10013	9833	9543	9372	9322	9173	8998
CH_4 emissions with CH_4 from LULUCF	10130	10355	10307	10300	10120	9831	9663	9617	9471	9298
N_2O emissions without N_2O from LULUCF	6463	6249	6160	6042	5776	5262	5145	5291	5339	5157
N_2O emissions with N_2O from LULUCF	6517	6300	6210	6090	5822	5308	5189	5334	5381	5199
HFCs	728	723	745	765	819	870	892	925	926	951
PFCs	23	28	28	25	21	19	21	21	18	19
SF_6	59	27	25	28	30	28	29	34	31	33
Total (without LULUCF)	***71410***	***72980***	***72522***	***77511***	***71572***	***67250***	***74951***	***70291***	***66734***	***63998***
Total (with LULUCF)	***76497***	***77557***	***78167***	***82913***	***76775***	***72220***	***80376***	***75886***	***70833***	***67380***
Total (without LULUCF, with indirect)	***72290***	***73834***	***73333***	***78296***	***72324***	***67975***	***75633***	***70933***	***67347***	***64542***
Total (with LULUCF, with indirect)	**77378**	**78411**	**78977**	**83698**	**77527**	**72946**	**81058**	**76528**	**71446**	**67925**
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
CO_2 emissions without net CO_2 from LULUCF	49179	44227	39853	41755	37565	35102	36906	34652	34602	30942
CO_2 emissions with net CO_2 from LULUCF	51198	45492	40507	42098	38128	34683	37445	35039	36778	32140
CH_4 emissions without CH_4 from LULUCF	9114	8917	8809	8711	8688	8613	8704	8715	8781	8599
CH_4 emissions with CH_4 from LULUCF	9415	9215	9104	9001	8975	8898	8993	9005	9070	8894
N_2O emissions without N_2O from LULUCF	5043	5055	4953	4931	5012	5018	5119	5157	4927	5031
N_2O emissions with N_2O from LULUCF	5084	5096	4993	4970	5052	5058	5159	5195	4966	5068
HFCs	806	730	728	664	603	452	503	407	475	320
PFCs	10	7	3	3	2	0	0	1	0	1
SF_6	37	79	134	150	163	133	100	84	76	73
Total (without LULUCF)	***64190***	***59015***	***54480***	***56215***	***52034***	***49319***	***51332***	***49016***	***48862***	***44965***
Total (with LULUCF)	***66550***	***60620***	***55470***	***56888***	***52923***	***49224***	***52200***	***49731***	***51364***	***46496***
Total (without LULUCF, with indirect)	***64716***	***59475***	***54900***	***56611***	***52397***	***49667***	***51666***	***49341***	***49168***	***45254***
Total (with LULUCF, with indirect)	**67076**	**61080**	**55890**	**57284**	**53287**	**49572**	**52533**	**50057**	**51670**	**46785**

	2020	2021	2022							
CO_2 emissions without net CO_2 from LULUCF	28294	29588	28432							
CO_2 emissions with net CO_2 from LULUCF	29247	29442	27701							
CH_4 emissions without CH_4 from LULUCF	8614	8726	8450							
CH_4 emissions with CH_4 from LULUCF	8916	9032	8761							
N_2O emissions without N_2O from LULUCF	5049	4713	4674							
N_2O emissions with N_2O from LULUCF	5086	4751	4712							
HFCs	317	275	261							
PFCs	0	0	0							
SF_6	48	15	13							
Total (without LULUCF)	***42322***	***43317***	***41830***							
Total (with LULUCF)	***43614***	***43516***	***41449***							
Total (without LULUCF, with indirect)	***42574***	***43569***	***42055***							
Total (with LULUCF, with indirect)	**43866**	**43768**	**41674**							

Table 2.5(2) Emission trends by sector

Greenhouse gas emissions, kt	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1. Energy	52573	63245	57434	59803	63870	60831	74258	64771	60743	58237
2. Industrial processes and product use	2119	2274	2372	2447	2599	2824	2964	2981	3155	3401
3. Agriculture	13831	13721	13592	13587	13420	13478	13086	13120	13120	12713
4. Land use, land-use change and forestry	6694	6027	6936	5614	5137	5317	4603	5077	4993	5305
5. Waste	1960	1936	1913	1810	1734	1625	1547	1456	1358	1358
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	***77177***	***87203***	***82247***	***83261***	***86761***	***84075***	***96458***	***87405***	***83370***	***81014***
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Energy	53810	55488	55074	60268	54669	51005	58925	54049	50803	48760
2. Industrial processes and product use	3553	3410	3349	3341	3202	2737	2781	2825	2517	2089
3. Agriculture	12682	12733	12794	12598	12570	12369	12063	12259	12246	12071
4. Land use, land-use change and forestry	5087	4576	5645	5402	5203	4971	5425	5595	4099	3382
5. Waste	1364	1350	1304	1304	1131	1138	1182	1159	1168	1079
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	***76497***	***77557***	***78167***	***82913***	***76775***	***72220***	***80376***	***75886***	***70833***	***67380***
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Energy	49269	43966	39428	41224	36937	34513	36128	33760	33704	30109
2. Industrial processes and product use	1881	2028	2067	2029	1995	1831	2019	2020	2032	1827
3. Agriculture	12024	11995	11987	11967	12086	11965	12146	12180	12044	11935
4. Land use, land-use change and forestry	2361	1604	989	673	889	-95	868	715	2503	1531
5. Waste	1016	1027	999	995	1015	1010	1039	1057	1081	1094
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	66550	60620	55470	56888	52923	49224	52200	49731	51364	46496
	2020	2021	2022							
1. Energy	27180	28493	27406							
2. Industrial processes and product use	1909	1849	1678							
3. Agriculture	12089	11785	11523							
4. Land use, land-use change and forestry	1292	198	-381							
5. Waste	1144	1191	1222							
6. Other	NO	NO	NO							
Total (including LULUCF)	***43614***	***43516***	***41449***							

2.6 PROJECTIONS OF GREENHOUSE GAS EMISSIONS AND REMOVALS

In 2024, the 2024 baseline scenario with a projection of Denmark's greenhouse gas emissions 2023-2035/2040 – i.e. a with existing measures (WEM) or frozen policy scenario – was published by the Ministry of Climate, Energy and Utilities in *Denmark's Climate Status and Outlook 2024* (CSO24)[47]. A supplemental documentation report in English was published in September 2024 by DCE, the Danish Centre for Environment and Energy at Aarhus University (*Nielsen et al. (2024b)*)[48].

The results from the 2024 WEM projection are shown in Annex D1 in the format of Table 7 in the Common Tabular Format (CTF).

Projection of the key indicator relevant to Denmark's contribution to the achievement of the EU joint NDC under the Paris Agreement – i.e. the projection of Denmark's total greenhouse gas emissions with LULUCF and with indirect CO_2 emissions is shown in Annex D2 in the format of Table 10 in the CTF.

Information on key underlying assumptions and parameters used for projections are available in Annex D3 in the format of Table 11 in the CTF.

Information about key facts and key models used in CSO24 are included in Annex D4.

A comparison of the 2024 greenhouse gas inventory submission for 1990-2022 with the "with measures" projections of Denmark's total greenhouse gas emissions included in Denmark's NC1 to NC8 and this BTR1 is included in Annex D5.

2.6.1 The big picture in the 2024 Climate Status and Outlook (CSO24)

2.6.1.1 Introduction

The purpose of *Denmark's Climate Status and Outlook 2024* (CSO24) is to explain the development of Denmark's greenhouse gas emissions from 1990 to 2022 and to estimate how emissions will develop until 2035. In addition, projection data are available until 2040. The annual climate status and projection thus forms the basis for assessing the extent to which the reduction targets laid down in the Danish Climate Act and the Danish EU climate commitments can be expected to be met through the climate and energy initiatives that have already been decided.

The CSO24 was prepared by the Danish Ministry of Climate, Energy and Utilities, including the Danish Energy Agency with the involvement of researchers from the Danish Centre for Environment and Energy (DCE) and the Danish Centre for Food and Agriculture (DCA) at Aarhus University as well as the Department of Food and Resource Economics (IFRO) and the Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen. A number of ministries and agencies are also involved.

2.6.1.2 Estimates for meeting the climate targets in 2025 and 2030

The *Agreement on a Climate Act* of 6 December 2019 set a target of a 70 per cent reduction in emissions by 2030 compared to 1990. At the date of the agreement, a gap (meaning a need for further reduction) of approx. 18.4 million tonnes CO_2e in 2030 was estimated to achieve the target.

The estimated outstanding reduction gap has been revised downwards in each projection since the agreement on the climate act was concluded. CSO24 estimates that total net emissions in 2030 will amount to 25.4 million tonnes CO_2e which corresponds to a reduction of approx. 68 per cent compared to 1990. This leaves an estimated reduction gap of approx. 1.9 million tonnes CO_2e. Taking into account the partially estimated reduction effects of the *Agreement on the partial implementation of the Green Fund (15 April 2024)* and the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc. (19 March 2024)*, the reduction gap is estimated to be approx. 1.5 million tonnes CO_2e (cf. Figure 2.6(1)).

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[47] *CSO24: Klimastatus og –fremskrivning 2024*, Ministry of Climate, Energy and Utilities, April 2024 (draft) / July 2024 (final) (https://www.kefm.dk/klima/klimastatus-og-fremskrivning)

[48] *Nielsen et al. (2024b):* Projection of greenhouse gases 2023-2040. Nielsen, O.-K., Plejdrup, M.S., Winther, M., Hjelgaard, K., Nielsen, M., Mikkelsen, M.H., Albrektsen, R., Andersen, T.A, Callisen, L.W. , Gyldenkærne, S., & Levin, G. 2024. Projection of greenhouse gases 2023-2040. Aarhus University, DCE – Danish Centre for Environment and Energy, 150 pp. Scientific Report No. 610. (https://dce.au.dk/fileadmin/dce.au.dk/Udgivelser/Videnskabelige_rapporter_600-699/SR610.pdf)

The Climate Act also includes an indicative target to reduce emissions by 50-54 per cent in 2025 compared to 1990. CSO24 estimates that total emissions in Denmark will amount to 35.3 million tonnes CO_2e in 2025 which corresponds to a reduction of approx. 55.0 per cent in 2025 compared to 1990. Taking into account the partially estimated effects of agreements concluded since 1 January 2024, total emissions are estimated to be reduced by approx. 55.5 per cent in 2025 compared to 1990. This means that the lower range of a 50 per cent reduction is estimated to be met with a margin of approx. 4.4 million tonnes CO_2e and that the upper range of a 54 per cent reduction is estimated to be met with a margin of approx. 1.2 million tonnes CO_2e – i.e. an over-achievement in both cases (cf. Figure 2.6(2)).

Figure 2.6(1)

Development in the reduction gap to the 70 per cent target in 2030 since *the Agreement on a Climate Act,* million tonnes CO_2e

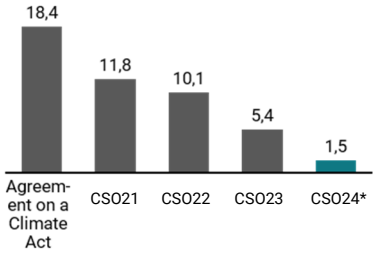
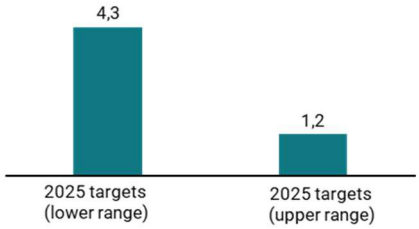


Figure 2.6(2)

Over-achievement of the 50-54 per cent indicatice reduction target by 2025, million tonnes CO_2e



Note: The gap in the agreement on the climate act is based on CSO19 adjusted for the agreement on the 2020 Finance Act. Each CSO contains the effects of policies up to 31 December of the previous year. *CSO24 in the figure includes the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from *the Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*
Source: Danish Ministry of Climate, Energy and Utilities.

The *Agreement on the green transition of Danish agriculture* (2021) sets a reduction target for agriculture of 55-65 per cent in 2030 compared to emissions in 1990. The target includes emissions from agricultural processes, land and forests, but not energy-related emissions in agriculture. In 2030, sectoral greenhouse gas emissions covered by the reduction target are estimated to be reduced by approx. 48 per cent in CSO24, which corresponds to a reduction gap of approx. 1.5-3.5 million tonnes CO_2e.

2.6.1.3 Estimates for the fulfilment of EU objectives

In addition to the national climate targets, a number of EU commitments relating to greenhouse gas emissions and energy consumption to which Denmark is subject have been established (cf. *chapter 2.6.5 Status of Denmark's EU commitments*).

Under the burden-sharing agreement, Denmark must reduce emissions for, *i.a.*, the transport sector, small-scale industry, households and agriculture by 50 per cent compared to 2005 levels for the period 2021-2030. The agreement covers sectors not covered by the EU Emissions Trading System (ETS1) or the LULUCF sectors. CSO24 estimates the total aggregated reduction gap at approx. 1.9 million tonnes CO_2e under the burden-sharing agreement for the period 2021-2030. Taking into account the partially estimated reduction effect of the *Agreement on the partial implementation of the Green Fund* of 15 April 2024, the gap is estimated to be approx. 0.1 million tonnes CO_2e, *see table 2.6(1).*

The LULUCF sectors include agricultural land use, land use change and forestry. Denmark is subject to several reduction targets, including reduction commitments for the 2021-2025 and 2026-2029 subperiods and a point target for 2030. For the LULUCF Regulation, overdelivery of the budget target for the period 2021-2025, an aggregated reduction gap of approx. 3.8 million tonnes CO_2e for the period 2026-2029 and overdelivery of the reduction target in 2030 of approx. 0.2 million tonnes CO_2e are estimated, *see table 2.6(1).*

Table 2.6(1)
Estimated gaps for Denmark's EU commitments, million tonnes CO_2e

Commitments	CSO23	CSO24
Burden-sharing agreement (2021-2030)	16.1	0.1*
LULUCF budget target (2021-2025)	-12.7	-30.6
LULUCF budget target (2026-2029)	8.8	3.8
LULUCF reduction target 2030	2.0	-0.2

Note: *The CSO24 gap under the burden-sharing agreement includes the partially estimated effect of the diesel and road tax from the *Agreement on the partial implementation of the Green Fund*.
Source: Danish Ministry of Climate, Energy and Utilities.

In addition, Denmark has a number of commitments to increase the use of renewable energy sources and reduce energy consumption in the Renewable Energy Directive (RE Directive) and the Energy Efficiency Directive (EED), respectively. Both directives were revised in 2023, and the actual implementation into Danish law is still pending for parts of the directives.

With an estimated RE share in energy consumption of 74 per cent in 2030, Denmark is expected to meet the primary commitment in the RE Directive. The directive stipulates that the EU's energy consumption must be at least 42.5 per cent by 2030, to which each member state must contribute with individual national targets. In addition, the RE Directive contains a number of sector-specific targets with an implementation deadline in May 2025. The assessment is that the requirements are deemed to be met, except commitments in relation to advanced biofuels and PtX fuels in the transport sector.

For the EED, Denmark is estimated to fulfil the national indicative contribution to the EU's common energy efficiency target as Denmark is estimated to have a final energy consumption of 550 PJ in 2030 while the EED requires Denmark's final consumption to be a maximum of 575 PJ in 2030.

The status and projection of Denmark's EU commitments are described in more detail in *Klimastatus og -fremskrivning 2024* (in Danish), *chapter 30 Denmark's greenhouse gas commitments in the EU* and *chapter 31 Denmark's EU commitments in relation to RE and EE*.

2.6.1.4 Development in emissions from 1990 to 2035

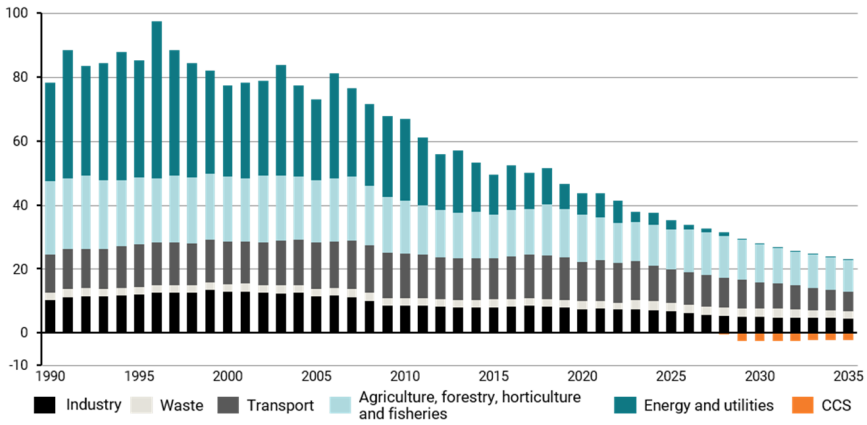
Total greenhouse gas emissions amounted to approx. 41.7 million tonnes CO_2e in 2022. This means that greenhouse gas emissions were reduced by approx. 47 per cent compared to Denmark's total emissions in 1990.

CSO24 estimates total net emissions to be reduced to approx. 35.3 million tonnes CO_2e in 2025 and approx. 25.4 million tonnes CO_2e in 2030, *see figure 2.6(3).* Total emissions in 2035 are estimated to be further reduced to approx. 20.4 million tonnes CO_2e.

The contribution of each sector to greenhouse gas emissions has changed significantly over the years. In the period 1990-2010, the energy sector accounted for the largest share of emissions, *see figure 2.6(3).* In 2030, it is estimated that agriculture, forests, horticulture and fisheries, including their energy consumption, will account for approx. 46 per cent of emissions, followed by approx. 33 per cent from the transport sector. Industry's share of emissions is estimated to remain stable while the share from the waste sector is estimated to increase from around 5 per cent to around 10 per cent of total emissions. From 2025, CCS is anticipated to contribute negative emissions through carbon capture.

Figure 2.6(3)

Development in CO_2e emissions and removals across sectors 1990-2035, million tonnes CO_2e



Note: The 'Industry' category covers the manufacturing industry and the building and construction sector as well as the production of oil, gas and renewable fuels. "Energy and utilities" covers the electricity and district heating sectors as well as households and service trades. CSO24 introduces CCS as a non-sectoral, negative emission in addition to the CCUS pool which is recognised in the electricity and district heating sectors. The figure does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*

Source: Danish Ministry of Climate, Energy and Utilities.

2.6.1.5 Changes in CSO24 compared to CSO23

There have been several changes between CSO23 and CSO24 that affect the estimated emission levels in 2025 and 2030, *see figure 2.6(4) and figure 2.6(5).* Among other things, changes have been made due to new policies and improvements to the methodology and model basis for CSO24. These include carbon-rich soils, CO_2e removal in forests, the transport sector and waste incineration. Chapter 2.6.4 explains the changes across sectors.

Figure 2.6(4)

Changes in total emissions in 2025 for CSO24 compared to CSO23, million tonnes CO_2e

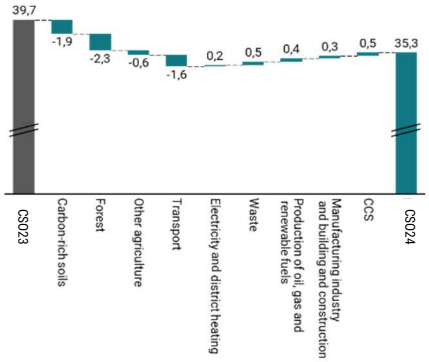
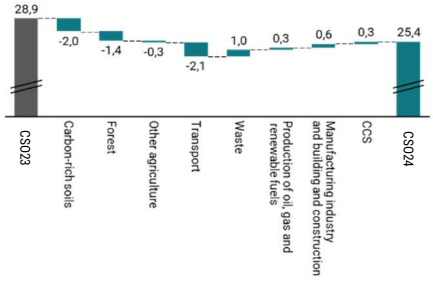


Figure 2.6(5)

Changes in total emissions in 2030 for CSO24 compared to CSO23, million tonnes CO_2e



Note: Rounding may cause numbers to not add up to the total. The figure does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.* Changes in households and service trades between CSO23 and CSO24 are less than 0.1 million tonnes CO_2e and are therefore not included in the figure.

Source: Danish Ministry of Climate, Energy and Utilities.

2.6.1.6 How is CSO24 structured?

The CSO24 report presents the results of the projection and consists of two main parts.

Part 1 of CSO24 consists of chapters 1-16, which have been translated and included in this BTR1 as chapter 2.6.1.-2.6.16.

Chapter 2.6.2 describes the overall distribution of greenhouse gas emissions and removals across sectors in CSO24 as well as the main reasons for the anticipated reductions in the projection towards 2030.

Chapter 2.6.3 sheds light on the cross-cutting reasons for the projected development of emissions in CSO24. Chapter 2.6.4 explains the changes in the projection in CSO24 compared to CSO23. Chapter 2.6.5 describes the status and projection for fulfilling Denmark's EU commitments in relation to greenhouse gas reductions and energy consumption.

Chapters 2.6.6-2.6.14 introduce sources of greenhouse gas emissions and removals for each sector and the reasons for the projected development towards 2030. Chapter 2.6.15 focuses on the projection of emissions after 2030 and towards 2035. Finally, chapter 2.6.16 sheds light on the overall uncertainties and sensitivity calculations in the projection.

Part 2 of CSO24 consists of chapters 17-31 in *Klimastatus og -fremskrivning 2024* in which the status and projection of emissions, changes compared to CSO23 and uncertainties are reviewed for each sector in CSO24 (available in Danish only).

The specific assumptions, data and models used for the projection are available in 11 assumption notes in Danish. In addition, a number of data sheets are published in Danish with assumptions and results. In January 2024, a public consultation was conducted on the assumption notes for CSO24. 14 responses have been received.

2.6.1.7 Background for the 2024 Climate status and outlook

The Climate Act stipulates that the Minister of Climate, Energy and Utilities must prepare a climate status and projection once a year.

The reduction targets laid down in the Climate Act include Denmark's total greenhouse gas emissions, including carbon removals/emissions from land and forest (LULUCF), negative emissions from technological processes (e.g. underground carbon storage) and indirect carbon emissions (substances that are later converted to CO_2 in the atmosphere). Greenhouse gas emissions are calculated in accordance with UN calculation methods. The projection in CSO24 has been made up to 2035, which is unchanged from CSO23. The projection period is revised on an ongoing basis and must continuously ensure a direction in relation to fulfilment of current climate objectives. The duration of the projection period will be continuously considered on that basis.

What political initiatives are included in CSO24?

CSO24 is based on the climate and energy initiatives decided by the Danish Parliament or the EU before 1 January 2024 or as a result of binding agreements. As a starting point, all political initiatives within climate and energy decided before the cut-off date are included in the annual CSO provided that these initiatives are supported by specific and funded instruments.

Between 2024 and the time of publication of CSO24, two political agreements have been concluded that are expected to reduce greenhouse gas emissions.

Diesel and road tax

The *Agreement on the partial implementation of the Green Fund* of 15 April 2024 increases, diesel taxes by DKK 0.50 per litre ex VAT from 2025. For cars and vans, the equalisation tax will be reduced proportionally from 2025 with further reductions in 2025 and 2026. For lorries, the kilometre-based road tax will be relaxed in the period 2025-2028. Finally, a framework of DKK 750 million has been set aside for the period 2024-2030 and DKK 50 million permanently for the green transition of heavy transport, including efficiency measures for road freight.

The agreement estimates that the changes to diesel and road taxes will reduce emissions from road transport by approx. 0.3 million tonnes CO_2e in 2025 and 2030. The agreement was concluded after the cut-off date for CSO24 on 1 January 2024. The estimated reduction in diesel and road taxes has therefore only been partially incorporated in the gap assessment.

Transition aid

In March 2024, the *Agreement on the implementation of transition aid from the Green tax reform for industry etc.* (in the following "transition aid") was concluded. The agreement establishes a framework for two aid schemes to support the green transition of those companies that have the most difficulties adapting and that are affected the most by the carbon tax from *the Agreement on the green tax reform for industry etc.*

The agreement estimates that the transition aid will contribute reductions of approx. 0.1 million tonnes CO_2e in both 2025 and 2030. The agreement was adopted after the cut-off date for CSO24 and is therefore only partially incorporated in the gap assessment.

2.6.2 Development in emissions across sectors

The projected development in total greenhouse gas emissions is a result of projections in the underlying sectors, *see table 2.6(2).* Industries across agriculture, forestry, horticulture and fisheries are collectively estimated to account for the largest share of emissions up until 2035. The electricity and district heating sector was the largest emitter in 1990 but is the first sector estimated to have CO_2e net removals in 2030.

Table 2.6(2)

Development in emissions across sectors in selected years, million tonnes CO_2e

	1990	2022	2025	2030	2035
Agriculture, forestry, horticulture and fisheries (incl. energy)	22.9	12.6	12.6	11.7	9.9
Transport	11.7	12.4	10.6	8.4	6.0
Manufacturing industry and building and construction	8.0	4.8	4.2	2.7	2.5
Electricity and district heating	24.4	4.8	1.4	-0.3	-0.3
Production of oil, gas and renewable fuels	2.2	2.4	2.5	2.2	2.1
Waste (incl. waste incineration)	2.5	2.3	2.7	2.7	2.2
Households	5.1	1.4	0.9	0.4	0.3
Service trades	1.4	0.7	0.5	0.2	0.1
CCS (not broken down by sector)	0.0	0.0	0.0	-2.5	-2.3
In total	**78.3**	**41.7**	**35.3**	**25.4**	**20.4**

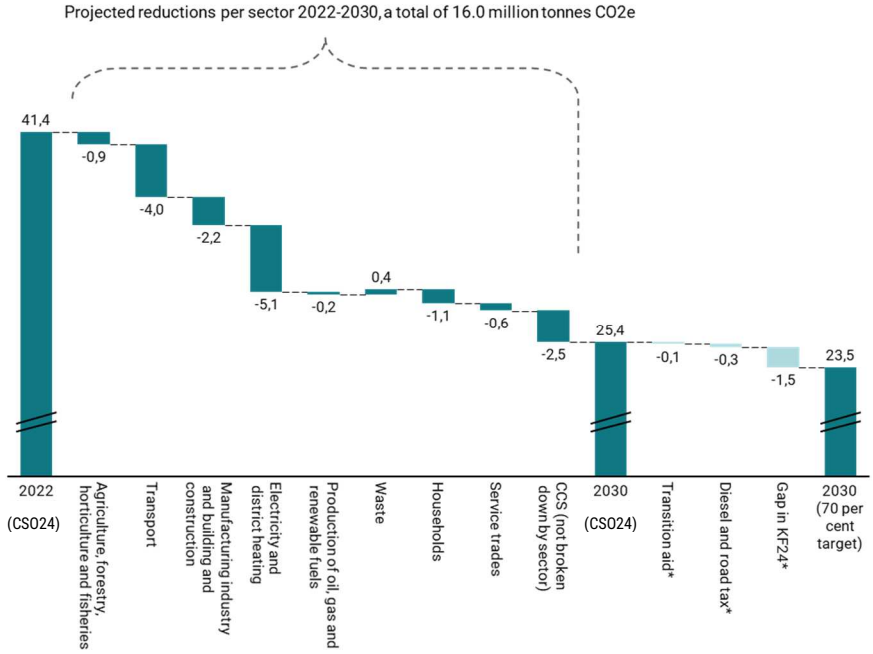
Note: The table includes statistical difference compared to DCE in historical years, specifically for 1990 and 2022. The table does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.* CSO24 introduces CCS as a non-sectoral, negative emission in addition to the CCUS pool, which is recognised in the electricity and district heating sector.

Source: Danish Ministry of Climate, Energy and Utilities.

CSO24 estimates a total reduction in emissions of approx. 16.1 million tonnes CO_2e from 2022 to 2030 as a result of adopted policies, market developments, prices etc., *see figure 2.6(6).*

Figure 2.6(6)

Breakdown of estimated reductions from 2022 to 2030, million tonnes CO_2e



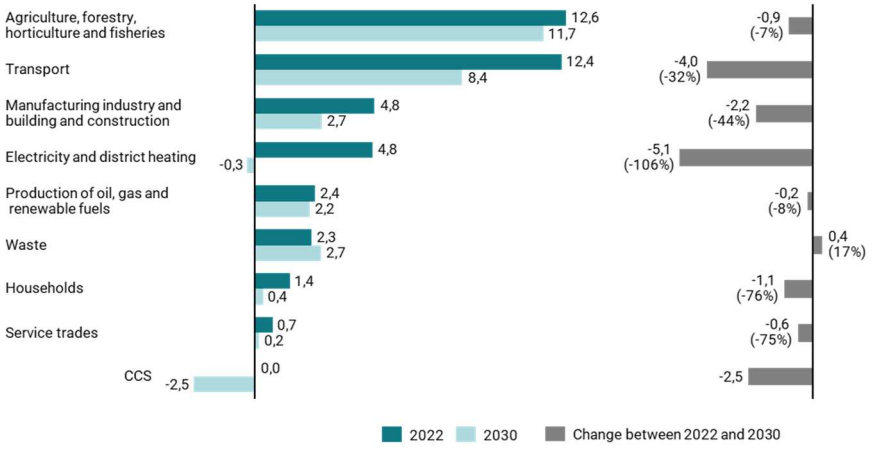
Note: Rounding may cause numbers to not add up to the total. The figure excludes adjustment for statistical difference compared to DCE in 2022. The figure includes the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*

Source: Danish Ministry of Climate, Energy and Utilities.

The electricity and district heating sector is estimated to account for the largest reduction in emissions from 2022 to 2030 in both absolute and percentage terms, *see figure 2.6(7).* In addition, larger reductions are estimated in the transport sector, manufacturing industry and the building and construction sector as well as negative emissions from carbon capture.

Figure 2.6(7)

Emissions in 2022 and 2030 and expected reductions 2022-2030 per sector, million tonnes CO_2e



Note: Rounding may cause changes to not add up to the total.

Source: Danish Ministry of Climate, Energy and Utilities.

The estimated reduction in the electricity and district heating sector is primarily attributable to the transition to renewable energy sources and the phasing out of fossil fuels for electricity and district

heating production. In 2028, the last coal-fired CHP station is expected to be shut down, and from 2029, piped gas consumption is estimated to be 100 per cent green. In addition, the implementation of the CCUS pool is expected to result in carbon capture at the Avedøre and Asnæs CHP stations being in service from December 2025.

The majority of the estimated reductions in the transport sector can be attributed to lower emissions from cars and vans as fossil fuel vehicles are replaced by electrified vehicles on an ongoing basis while newly sold petrol and diesel cars are more energy-efficient than the fossil fuel vehicles they replace. In addition, an increasing addition of renewable fuels and greater use of fuel filled up abroad and used in Denmark through cross-border trade is expected. Several policy measures encourage the transformation of the transport sector such as the introduction of a kilometre-based road tax for lorries and the EU climate plan, *Fit for 55*, which sets CO_2e reduction requirements for new vehicles and introduces allowance payments on fossil fuel emissions in road transport from 2027.

In the manufacturing industry and in the building and construction sector, reductions are primarily due to the carbon tax from the *Agreement on the Green tax reform for industry etc.* and the revision of the EU's emissions trading system which imposes a tax and allowance price on energy- and process-related emissions from, *i.a.*, cement production and other mineralogical processes. In addition, significant reductions are expected as the share of biogas in the gas network is estimated to exceed 100 per cent from 2029.

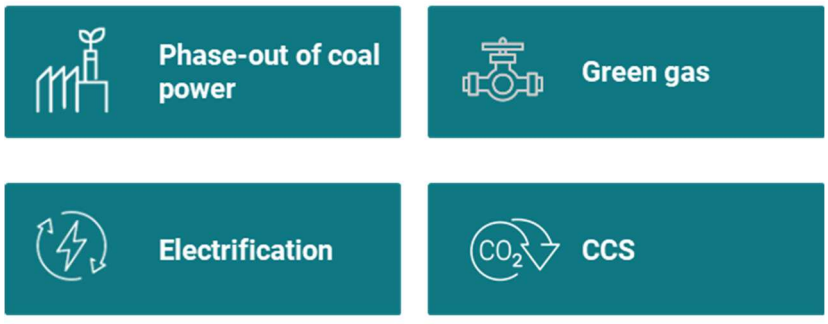
CCS *(carbon capture and storage)* is an umbrella term for a range of technologies capable of capturing and storing CO_2 underground. Carbon capture is expected to occur when CCS is established as a result of the allocated pools.

The estimated reductions in households and service trades are relatively smaller in the overall picture. However, compared to current emissions in the sectors, the reductions towards 2030 correspond to about three quarters of the emissions level in 2022. The agricultural sector is estimated to account for the largest emissions but is among the sectors with the relatively lowest reduction in the projection.

2.6.3 The main cross-sectoral drivers for reductions in CSO24

The projected reductions in emissions towards 2030 are driven by several technological developments that have an impact across sectors in CSO24. These include phasing out coal power, electrification and other energy efficiency measures in sectors that currently use fossil fuels. In addition, reductions across several sectors are estimated as biogas production is expected to exceed Danish consumption of piped gas from 2029. Finally, the establishment of CCS stations is expected to lead to the capture and storage of CO_2e across multiple sectors (cf. *chapter 29 CCS* in *Klimastatus og -fremskrivning 2024)*.

Figure 2.6(8)
Cross-cutting reasons for emissions reductions 2022-2030



Source: Danish Ministry of Climate, Energy and Utilities.

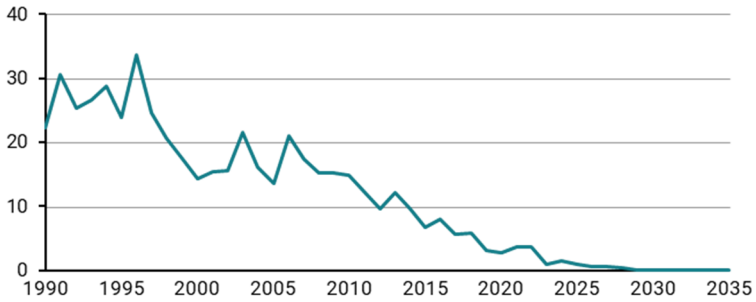
Primary energy consumption in Denmark is estimated to remain stable at just over 700 PJ towards 2030. This can primarily be attributed to a combination of growth and development of particularly energy-intensive businesses such as data centres and PtX, offset by significant energy efficiency measures. Energy efficiency measures are found across the entire energy system such as the transition from coal power to wind turbines, new fossil fuel vehicles, building insulation and electrification via heat pumps and electric vehicles.

2.6.3.1 *Phasing out coal power*

Emissions from Danish coal-fired power stations have decreased significantly since 1990, *see figure 2.6(9).* By 2025, emissions from coal-fired power stations are expected to be significantly reduced, primarily due to the expected closure of four out of the five coal-fired power stations in Denmark that were active in 2022. Subsequently, the coal-fired power station Nordjyllandsværket is expected to shut down in 2028, resulting in a total coal phase-out by 2030 in the electricity and district heating sector.

Figure 2.6(9)

Emissions from the production of coal power heat 1990-2035, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities

Reinvestment in coal-fired power stations is considered unlikely due to improved economic conditions for renewable energy production. The timing for phasing out the remaining coal-fired power stations is determined by closure authorisations from the Danish Energy Agency. Ørsted has announced its intention to phase out coal at its CHP stations by 2023, but the phase-out has been postponed to 2024 due to the energy crisis and heat supply considerations.

In addition, Fynsværket's (CPH station) conversion to gas is expected to start in the summer of 2024 after coal firing is shut down in the spring of 2024. However, history has shown that the conversion of the stations can be delayed, such as Studstrupværket's re-firing of coal after a fire and the temporary extension of coal-fired CHP stations until 2024 in light of the war in Ukraine.

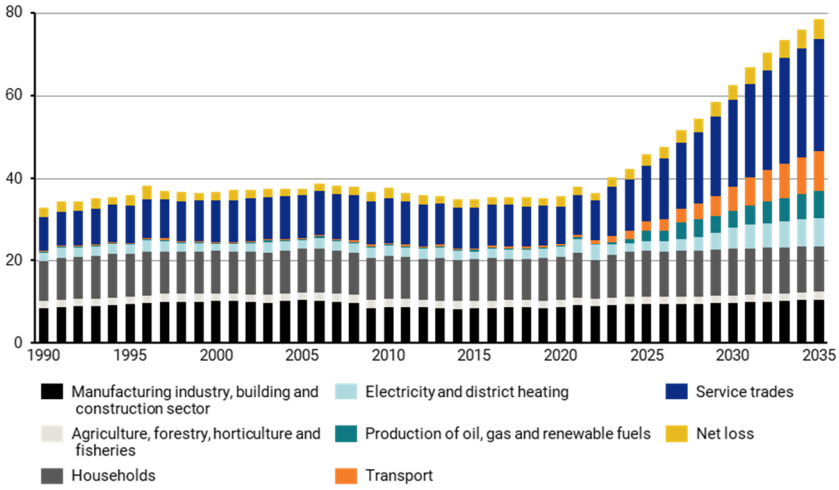
2.6.3.2 *Electrification etc.*

The main driver behind the reduction in emissions in CSO24 from 2022 to 2030 is estimated to be the continued phase-out of fossil fuels as a result of, *i.a.*, electrification, e.g., electric vehicles and heat pumps.

Electricity consumption is expected to increase significantly towards 2035 in CSO24, *see figure 2.6(10).* At the same time, electricity production in Denmark is estimated to transition to net removals of CO_2e via CCS projects.

Figure 2.6(10)

Total electricity consumption by sector 1990-2035, TWh



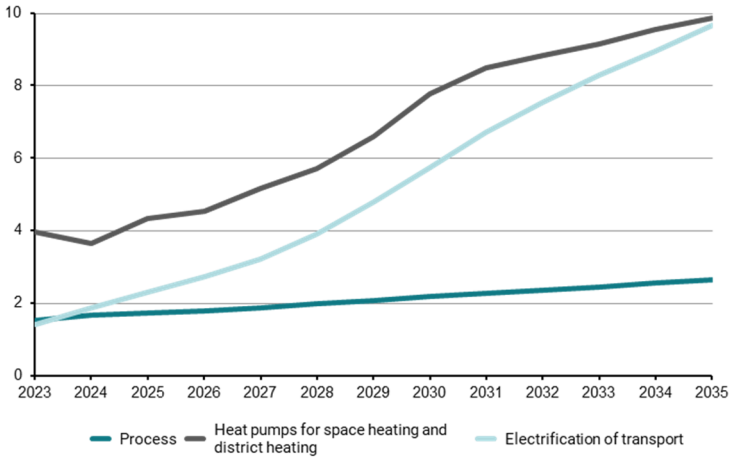
Source: Danish Ministry of Climate, Energy and Utilities.

The increase in electricity consumption towards 2035 is expected to occur across several sectors in CSO24. In the service sector, the expansion of large data centres is expected to increase demand for electricity, and the expansion of PtX production will increase electricity consumption. In the transport sector, vehicles such as electric cars and electric lorries are expected to increase electricity consumption. In addition, electrification of low-temperature process heat and, to a lesser extent, internal transport with mobile, non-road machines (e.g. tractors and excavators) is expected. Finally, electrification is expected to contribute to the conversion of space heating with heat pumps, including both individual heat pumps to replace oil burners and gas furnaces and collective heat pumps in the district heating sector.

Electrification will therefore primarily take place in the transport sector, space heating and process energy where the electricity consumption is expected to increase significantly between 2023 and 2030, *see figure 2.6(11)*.

Figure 2.6(11)

Estimated electricity consumption for space heating, process energy and transport, TWh



Note: Electricity consumption in transport covers electrification of road transport, shipping, rail transport etc.
Source: Danish Ministry of Climate, Energy and Utilities.

Electrification of road transport
The anticipated electrification of road transport is primarily driven by the sale of electric cars, electric vans and electric lorries, which are estimated to reduce sectoral consumption of fossil fuels. For passenger cars, electric cars are estimated to account for almost two-thirds of new sales in 2030. From 2035, the EU regulation on CO_2e reduction requirements for new passenger cars and vans sets a requirement of 100 per cent reduction of emissions from new, light vehicles.

For lorries, an increased incentive to invest in zero-emission lorries is expected. An increased expansion of charging infrastructure towards 2030 (cf. *chapter 21 Transport* in *Klimastatus og -fremskrivning 2024)*, is also expected. The development in road transport is driven, i.a., by the *Agreement on a kilometre-based road tax* and EU regulations such as the EU Emissions Trading System (ETS2) which, in isolation, is estimated to increase the incentive to invest in zero-emission lorries as a result of increased prices of the use of fossil fuels.

Electrification through heat pumps in space heating
Heat pumps are expected to make up an increasing share of heating sources for space heating in households and in the district heating sector.

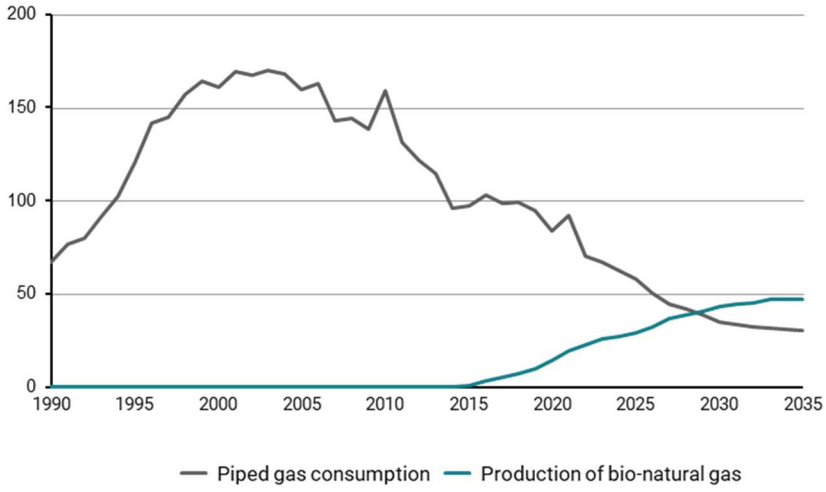
There already is a significant shift towards heat pumps. This may be due to, *i.a.*, higher gas prices in 2021-2022 and an expectation of generally higher prices than before the energy crisis, as well as energy and carbon taxes on oil and gas consumption for space heating. In addition, ETS2 will impose an allowance price for emissions from fossil fuel heating in buildings.

Electrification of the process industry
In industry, the carbon tax from the *Agreement on the Green tax reform for industry etc.* and the revision of the EU Emissions Trading System for large energy and industrial installations (ETS1) are helping to promote the transition to electricity-based solutions primarily in low- and medium-temperature processes, for example through increased use of heat pumps.

There is general uncertainty about the technological possibilities for the electrification of internal transport in the manufacturing industry and in the building and construction sector as well as agriculture, forestry, fisheries and horticulture as the technological development in this area is more uncertain compared to, for example, the electrification of road transport.

2.6.3.3 Green gas
CSO24 estimates that the consumption of piped gas in Danish households and businesses will be 100 per cent green from 2029 as biogas production increases significantly while the consumption of piped gas is continuously reduced, *see figure 2.6(12).*

Figure 2.6(12)
Piped gas consumption and production of bio-natural gas 1990-2035, PJ



Source: Danish Ministry of Climate, Energy and Utilities.

The expected development leads to reductions in all sectors with gas consumption. The main reduction in gas consumption is due to space heating and low-temperature processes switching to electricity-based solutions such as individual heat pumps in households etc. and collective heat pumps

in the district heating expansion. The transition is taking place as a result of, *i.a.*, increasing taxes on piped gas as a result of the *Agreement on the Green tax reform for industry etc.* and higher gas distribution tariffs.

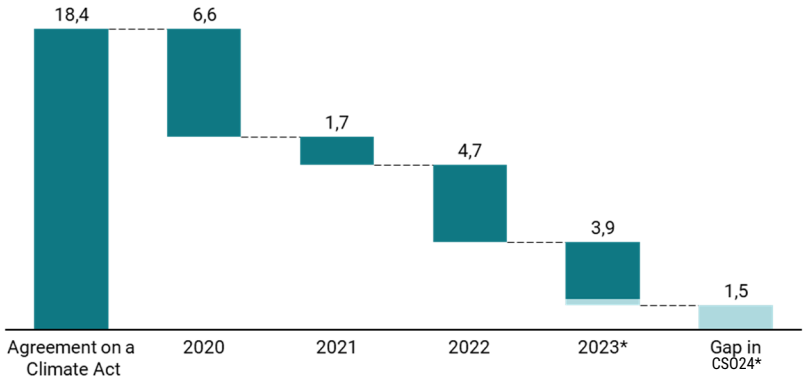
DKK 13 billion (2020 prices) has been set aside for biogas tenders up to 2050 through *the Climate Agreement for Energy and Industry etc.* of 22 June 2020 and *the Climate Agreement on Green Power and Heat 2022* of 25 June 2022. The first tender is pending state aid approval from the European Commission.

2.6.4 Changes compared to the 2023 Climate Status and Outlook (CSO23)

At the time of the conclusion of the agreement on a climate act in 2019, there was a reduction need of 18.4 million tonnes CO_2e to meet the 70 per cent target in 2030. Subsequent policy initiatives and other developments mean that more than 90 per cent of the reduction need is now expected to be met in 2030. For each CSO since 2019, a lower reduction gap than the last CSO has been estimated, *see figure 2.6(13)*.

Figure 2.6(13)

Development in the reduction gap in 2030 since the *Agreement on a Climate Act* in 2019, million tonnes CO_2e



Note: The year indicates the year of publication of the relevant climate projection. For example, "2022" shows the change in the reduction gap estimate between CSO21 and CSO22. The reduction gap estimate in the agreement on the climate act is based on the 2019 Basic projection (CSO19) adjusted for the agreement on the 2020 Finance Act. The gap change for each CSO contains the effects of policies up to 31 December of the previous year. *Change from CSO23 to CSO24 includes the partially estimated effect of the diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*

Source: Danish Ministry of Climate, Energy and Utilities.

There have been a number of changes in the expected emissions and removals of CO_2e in CSO24 compared to CSO23, *see table 2.6(3).* These changes are based on new policies, changed assumptions and improvements in methodology and models. The quality of the projection increases as the basis is continuously updated with new research results, statistics, model developments and the like.

Table 2.6(3)
Changes in total emissions in 2025 and 2030 for CSO24 compared to CSO23, million tonnes CO_2e

	2025	2030
Total emissions (CSO23)	**39.7**	**28.9**
Carbon-rich soils	-1.9	-2.0
Forest	-2.3	-1.4
Other agriculture	-0.6	-0.3
Transport	-1.6	-2.1
Electricity and district heating	0.2	0.0
Waste	0.5	1.0
Production of oil, gas and renewable fuels	0.4	0.3
Manufacturing industry and building and construction	0.3	0.6
CCS (not broken down by sector)	0.5	0.3
Total emissions (CSO24)	**35.3**	**25.4**

Note: Rounding may cause numbers to not add up to the total. Changes in the household and service trade sectors are less than 0.1 million tonnes CO_2e and are not included in the table.
Source: Danish Ministry of Climate, Energy and Utilities.

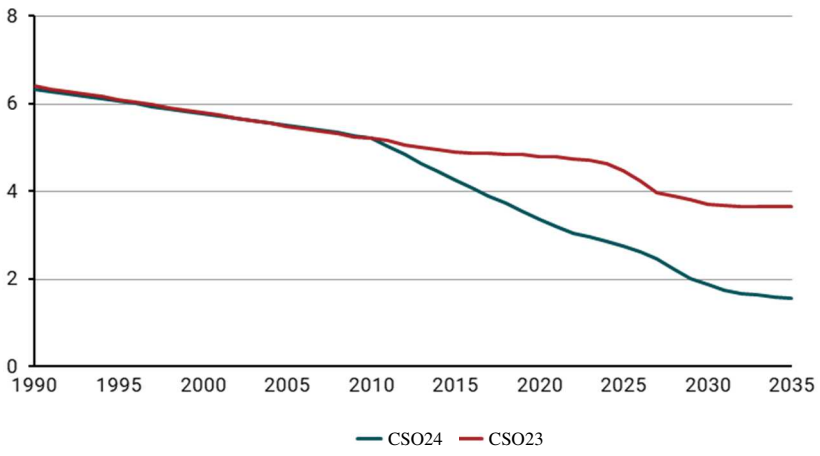
Carbon-rich agricultural land

The estimate for emissions from carbon-rich agricultural land has been adjusted downwards by 1.9 million tonnes CO_2e in 2025 and 2.0 million tonnes CO_2e in 2030 compared to CSO23, *see figure 2.6(14)*.

In 2020, the Ministry of Climate, Energy and Utilities initiated a research project from Aarhus University and GEUS on revising greenhouse gas inventories and emissions from areas with carbon-rich agricultural land. For example, previous inventories did not take into account the fact that soils degas over time and can no longer be classified as carbon-rich (mineralisation). The first partial result from Aarhus University has shown a reduction in the area of carbon-rich agricultural land which will be included in the emissions inventory after 2010.

The new map shows a write-down of approx. 30 per cent (approx. 50,000 hectares) of agricultural land with carbon-rich soil in 2022. In the second partial result, Aarhus University uncovers the relationship between carbon content, water level and emissions. Results are expected to be incorporated into next year's inventory and projection in CSO25 (cf. *chapter 18 Agricultural land* in *Klimastatus og -fremskrivning 2024)*.

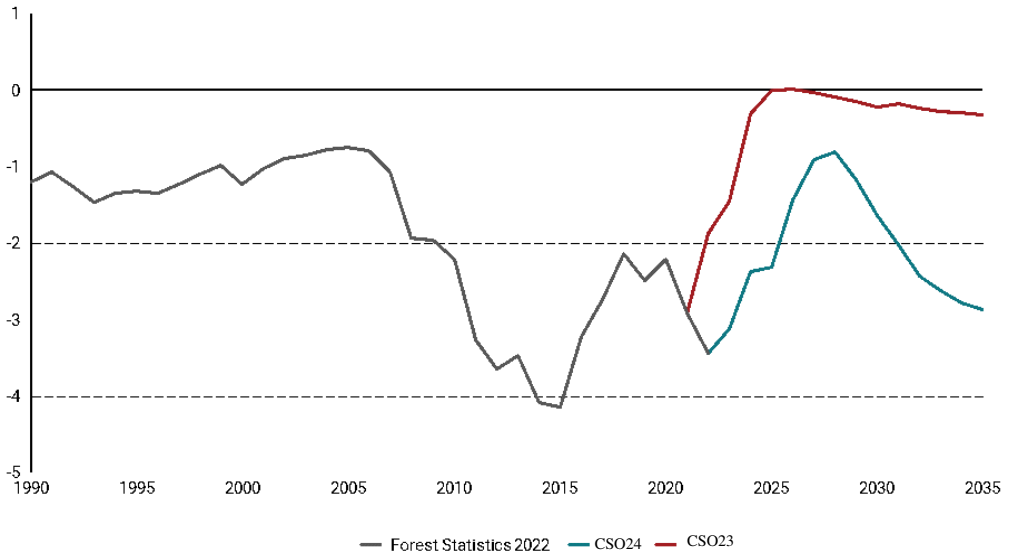
Figure 2.6(14)
Emissions from carbon-rich soils in CSO23 and CSO24, million tonnes CO_2e



Source: Ministry of Climate, Energy and Utilities (2024a) based on figures from DCE.

New forest projection model
The estimate for the CO_2e removal from carbon-rich agricultural land has been adjusted downwards by approx. 2.3 million tonnes CO_2e in 2025 and approx. 1.4 million tonnes CO_2e in 2030 compared to CSO23, *see figure 2.6(15)*.

Figure 2.6(15)
Emissions and removal from forests and harvested wood products in CSO23 and CSO24, million tonnes CO_2e



Note: Negative values indicate removal, and positive values indicate carbon emissions.
Source: The Ministry of Climate, Energy and Utilities based on figures from the Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen and the Danish Centre for Environment and Energy (DCE) at Aarhus University.

The Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen has created a new model for projecting carbon removal in Danish forests. In the past, it has been difficult to estimate the actual development in the short term. The forest projection in CSO23 underestimated the removal in 2021 by 0.8 million tonnes CO_2e compared to the actual removal in the 2021 Forest Statistics and by 1.6 million tonnes CO_2e in 2022 compared to the 2022 Forest Statistics.

Both CSO23 and CSO24 estimate a decreasing CO_2e removal in forests in the next five years. In the subsequent years, CSO24 estimates that the CO_2e removal will increase again towards 2035. According to IGN, the new forest projection model can better estimate felling because it now estimates the probability of a single tree being felled whereas it previously estimated whether an area was cleared of all trees, and as a result of more underlying data.

Other agriculture
The estimate for emissions from other agriculture has been adjusted downwards by approx. 0.6 million tonnes CO_2e in 2025 and approx. 0.3 million tonnes CO_2e in 2030 compared to CSO23.

Specifically, the estimate for emissions from Danish pig production has been adjusted downwards by approx. 0.2 million tonnes CO_2e in 2025 and approx. 0.1 million tonnes CO_2e in 2030 compared to CSO23. The downward adjustment is due to the fact that Chinese pig production is recovering from the outbreak of the African swine fever in China in 2019, which reduced sales opportunities for Danish pork. At the same time, feeding costs have been rising. It is therefore estimated that the number of year sows will be at a slightly lower level in the coming years than previously assumed. The development in the number of year sows is also reflected in the number of pigs produced, which is also estimated to be at a significantly lower level than in CSO23 throughout the projection period. The decrease in the number of pigs produced is mainly reflected in a decrease in the number of fattening pigs fattened in Denmark compared to CSO23.

In addition, the method for calculating live biomass has been changed in CSO24 from using data from Statistics Denmark to using data from the Danish Agricultural Agency's *Internet Markkort* (Internet field and crops plan). Methodology has been changed to better reflect actual conditions for live biomass

and has an impact on emissions, both historically and in the projection. In isolation, a reduction of approx. 0.4 million tonnes CO_2e in 2025 and approx. 0.3 million tonnes CO_2e in 2030 compared to CSO23 is estimated.

Transport
The estimate for emissions from the transport sector has been adjusted downwards by approx. 1.6 million tonnes CO2e in 2025 and approx. 2.1 million tonnes in 2030 compared to CSO23.

When CSO24 was prepared, several adjustments were made to the transport sector projection. Firstly, a model used to estimate cross-border trade is introduced. Cross-border trade in the transport sector includes emissions from fuel sold in Denmark and subsequently used outside Denmark as well as fuel sold outside Denmark and subsequently consumed in Denmark. The model estimates cross-border trade based on, *i.a.*, tax and stock differences between Denmark and neighbouring countries. This includes price differences on diesel in neighbouring countries, including Sweden's lower diesel tax and CO_2e displacement requirements from 2024, *see figure 2.6(16)* and *figure 2.6(17)*.

Figure 2.6(16)
Price difference on diesel between Denmark and Sweden, DKK

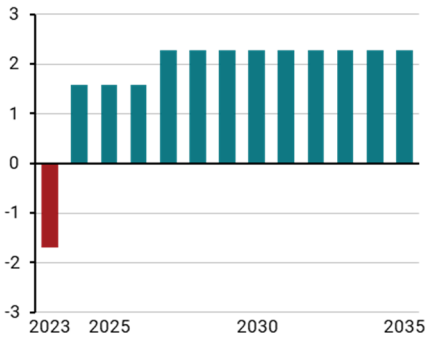
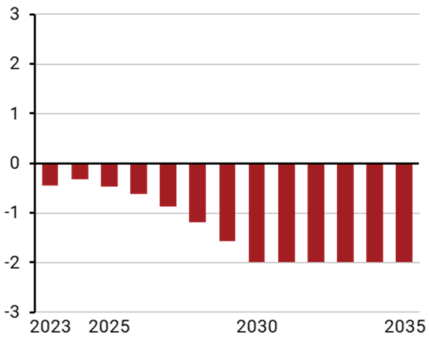


Figure 2.6(17)
Price difference on diesel between Denmark and Germany, DKK



Note: The price difference is shown in DKK relative to Danish diesel prices for the consumer. A positive price difference assumes a higher diesel price in Denmark relative to the neighbouring country. The development of cross-border trade is estimated based on the development of prices and regulation in Denmark, Sweden and Germany.
Source: The Danish Ministry of Taxation.

Secondly, the transport model has been calibrated against actual sales of electric vehicles in 2023, which exceeded the expected level in CSO23 by 58 per cent. Based on new projections with updated sales prices, electric vehicle sales are estimated to displace the share of fossil fuel vehicles sold at a higher rate than estimated in CSO23.

Finally, new framework conditions for shipping and aviation are included in CSO24. For aviation, this includes the *Agreement on Green Aviation in Denmark*, allocating funds for a green domestic route from 2025 and fully green domestic aviation from 2030. In addition, the EU regulation *ReFuelEU Aviation* introduces a gradually increasing blending requirement for sustainable aviation fuels from 2025 and subrequirements for synthetic fuels from 2030. For shipping, reductions are estimated as a result of the expansion of the EU Emissions Trading System (ETS1) from 2024 and the *FuelEU Maritime* Regulation establishing CO_2e displacement requirements from 2025 for larger ships and ferries.

Electricity and district heating
The estimate for emissions from coal consumption for electricity and district heating production has been adjusted upwards by approx. 0.2 million tonnes CO_2e in 2025 compared to CSO23. The reason is that increased electricity production (condensation production) is expected in the short term from, *i.a.*, Nordjyllandsværket as a result of changed fuel and allowance prices in CSO24 compared to CSO23.

Waste
The estimated CO_2e emissions from waste management have been adjusted downwards by approx. 0.5 million tonnes CO_2e in 2025 and approx. 1.0 million tonnes CO_2e in 2030 compared to CSO23.

In collaboration with DTU, the University of Copenhagen and the DREAM group, the Danish Environmental Protection Agency has developed a new model for waste projections based on, *i.a.*, the environmental macro model GrønREFORM. This leads to changes in the projection of both waste volume, waste treatment and waste composition. The new waste projection estimates a lower recycling of waste. In addition, a higher total volume of waste and fossil waste incinerated is expected, *see figures 2.6(18) and 2.6(19).* Since CSO23, the calculation assumptions for garden waste and hazardous waste have also been adjusted.

Figure 2.6(18)
Development in the volume of Danish waste suitable for incineration, million tonnes of waste

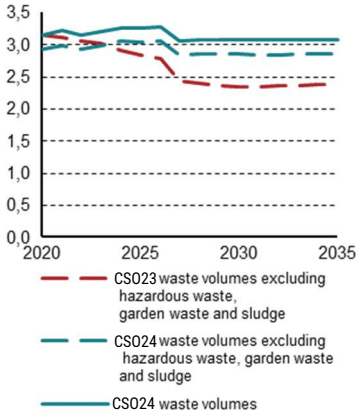
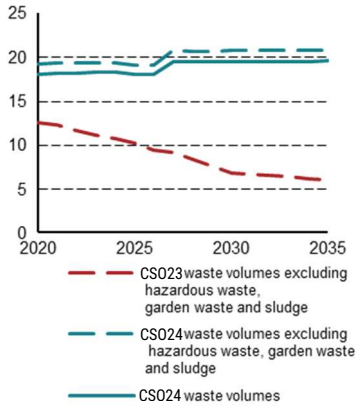


Figure 2.6(19)
Development in fossil content in Danish waste suitable for incineration, per cent



Source: The Danish Environmental Protection Agency.

The change in Danish waste volumes and composition in CSO24 generally makes the waste incineration sector more profitable compared to CSO23, and the higher fossil share increases the average calorific value, thus the energy production of the waste incineration sector. In addition, import of waste for incineration in CSO24 is estimated to stop completely from 2025 as the larger volumes of Danish waste suitable for incineration replace imported waste, which is assumed to have higher transport costs. From 2032 onwards, Danish waste incineration capacity is expected to decline as a number of waste incineration plants are anticipated to face major reinvestments and are no longer considered profitable.

Production of oil, gas and renewable fuels
Overall, the estimate for emissions from the production of oil, gas and renewable fuels has been adjusted upwards by approx. 0.4 million tonnes CO_2e in 2025 and approx. 0.3 million tonnes CO_2e in 2030 compared to CSO23. The upward adjustment is primarily due to an increase in the estimated own consumption of natural gas on the platforms in connection with the extraction of oil and gas in the North Sea in CSO24 compared to CSO23.

Manufacturing industry and building and construction
The estimate for emissions from activities in the manufacturing industry and in the building and construction sector has been adjusted upwards by approx. 0.3 million tonnes CO_2e in 2025 and approx. 0.6 million tonnes CO_2e in 2030 compared to CSO23.

In CSO23, it was estimated that the cement industry would switch from using coal and coke as fuel to gas around 2025. Due to falling fuel and allowance prices and rising gas distribution prices, this estimate has changed in CSO24. It is now estimated that the cement industry will continue to use petroleum coke throughout the projection period which, all things being equal, will lead to higher CO_2e emissions.

However, the change is partially offset by the fact that CSO24 estimates a higher biomass consumption and a reduced clinker proportion, especially in the grey cement type, which reduces process-related emissions. The reduction of white cement in 2022 is mainly due to reduced exports to North America, which is expected to cause a long-term change in the market. CSO24 therefore estimates a lower production level towards 2025 than was the case in CSO23.

In addition, CSO24 contains updated estimates for economic growth which leads to an increase in activity and thus energy consumption in the manufacturing industry, resulting in an increased fossil

energy consumption. At the same time, a slightly lower degree of electrification in internal transport in the manufacturing industry and in the building and construction sector is estimated in CSO24 compared to CSO23, which also leads to slightly higher emissions in CSO24.

CCS
The estimated carbon removal from CCS is primarily due to the NECCS tender having been adjusted downwards by approx. 0.5 million tonnes CO_2 in 2025 and approx. 0.3 million tonnes CO_2 in 2030 compared to CSO23. In connection with CSO24, the effect of the CCS pool has been updated. The pool is still estimated to contribute approx. 2.3 million tonnes CO_2 in 2030 and 2035, with minor deviations in the years from 2025-2029, where a lower carbon capture is estimated. A number of factors have been updated in the calculations, including the emission basis, the legal basis, energy prices and allowance prices. In addition, the assumptions have been updated based on the Danish Energy Agency's updated technology catalogues for biogas and CCS. CCS costs are generally estimated to be lower, but the pool has been updated to reflect the inclusion of VAT in the pool funds.

2.6.5 Status of Denmark's EU commitments

The EU has a climate target of at least 55 per cent reduction of EU greenhouse gas emissions by 2030 compared to 1990 levels and a climate-neutrality objective by 2050. The EU's common climate and energy policy aims to fulfil the 2030 climate target and includes, *i.a.*, national reduction commitments for each member state for selected sectors:

- **LULUCF sectors:** By 2030, Denmark must reduce net emissions from land use, land use change and forestry by 0.44 million tonnes CO_2e compared to net emissions in 2016-2018. Reduction commitments for the 2021-2025 and 2026-2029 subperiods and a point target for 2030 are also being set.
- **The burden-sharing agreement:** The commitments include greenhouse gas emissions in agriculture (excl. LULUCF), road transport, individual heating of buildings, small industrial companies, other waste and other minor emissions. By 2030, Denmark must reduce CO_2e emissions by 50 per cent compared to 2005 levels.

In addition to LULUCF emissions and emissions covered by the burden-sharing agreement, the EU regulates the remaining greenhouse gas emissions under the EU Emissions Trading System (ETS1). The Emissions Trading System phases out emission permits over time, reducing sectoral emissions.

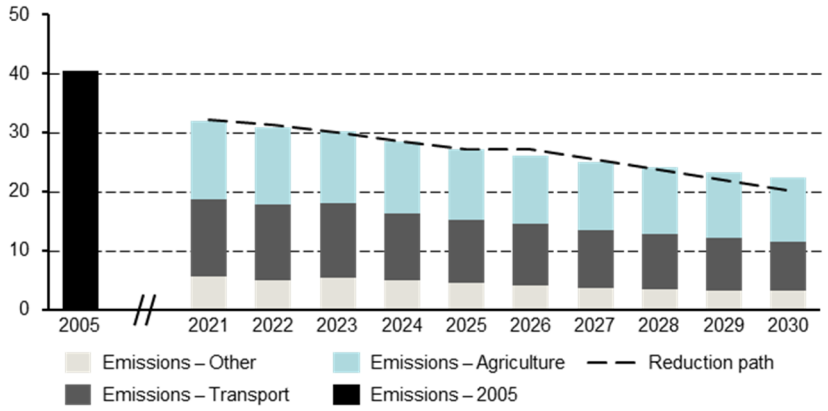
Denmark is also subject to a number of requirements for energy composition and energy efficiency measures through the *Renewable Energy Directive (RE Directive)* and *the Energy Efficiency Directive (EED)*.

2.6.5.1 The burden-sharing agreement

CSO24 estimates the total aggregated reduction gap under the burden-sharing agreement at approx. 1.9 million tonnes CO_2e for the period 2021-2030, *see figure 2.6(20)*. Taking into account the partially estimated reduction effect of the diesel and road tax in the *Agreement on the partial implementation of the Green Fund*, the gap for the period 2021-2030 is estimated at approx. 0.1 million tonnes CO_2e (cf. *chapter 2.6.1 The overall picture in the 2024 Climate status and projection*).

Figure 2.6(20)

Status of Denmark's fulfilment of the burden-sharing agreement, million tonnes CO_2e



Note: The figure does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund*.
Source: Danish Ministry of Climate, Energy and Utilities.

The projection of emissions from the burden-sharing sectors includes, *i.a.*, reductions from the transport sector, small-scale industry, households and agriculture. The revision of the Emissions Trading Directive, including the introduction of ETS2, is estimated to lead to reductions in the burden-sharing sectors by 2030.

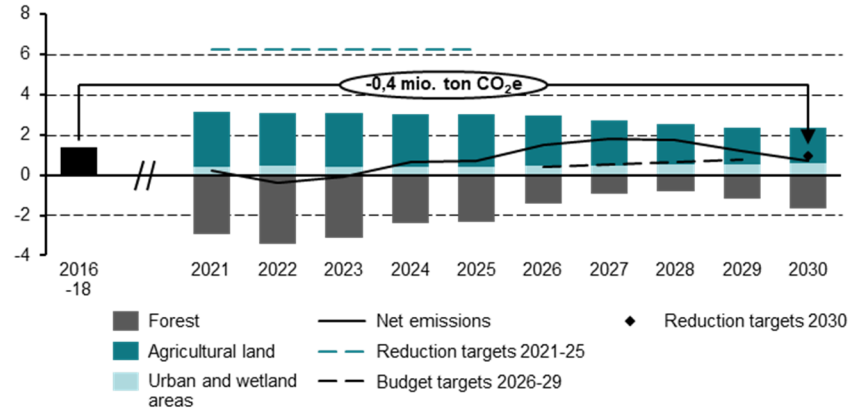
The reductions in the transport sector are due to increased electrification and the use of renewable fuels. In addition, a reduction in emissions associated with cross-border trade is expected (cf. *chapter 21 Transport* in *Klimastatus og -fremskrivning 2024)*.

2.6.5.2 The LULUCF Regulation

CSO24 estimates that Denmark will overachieve the budget target for the period 2021-2025 by approx. 30.6 million tonnes CO_2e. For the period 2026-2029, CSO24 estimates that a reduction gap of approx. 3.8 million tonnes CO_2e will remain. Finally, it is estimated that the point target will be exceeded in 2030 by approx. 0.2 million tonnes CO_2e, *see figure 2.6(21)*.

Figure 2.6(21)

Status of Denmark's fulfilment of the LULUCF Regulation, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Emissions from carbon-rich agricultural land are estimated to be reduced from approx. 3 million tonnes CO_2e in 2022 to approx. 1.9 million tonnes CO_2e in 2030. The reduction is expected due to annual mineralisation of the carbon pool on the land as well as policy measures on set-aside and rewetting of the land (cf. *chapter 18 Agricultural land and other land* in *Klimastatus og -fremskrivning 2024)*.

The fluctuations in net removals of forests are relatively large from year to year and are described in more detail in *Klimastatus og -fremskrivning 2024,* chapter 19 *Forests and harvested wood products*.

The fulfilment of Denmark's EU commitments is subject to several uncertainties, including the phase-in of electric vehicles, cross-border trade projections, mineralisation of the carbon pool and forest projections.

2.6.6 Agriculture, forestry, fisheries and horticulture

Total emissions from agriculture, forestry, fisheries and horticulture have gradually decreased since 1990, mainly due to agricultural land use. The projection estimates a continued decline towards 2035, *see figure 2.6(22)*. Greenhouse gas emissions can be calculated in different ways depending on which categories are included.

Combining the categories used in CSO24 with all emissions and removals in agriculture, forestry, fisheries and horticulture results in an estimated share of *approx. 46 per cent of Denmark's total net emissions in 2030.* This includes greenhouse gas emissions and removals from agricultural processes, land use in agriculture, urban areas and wetland areas, forests and energy consumption in agriculture, forestry, fisheries and horticulture.

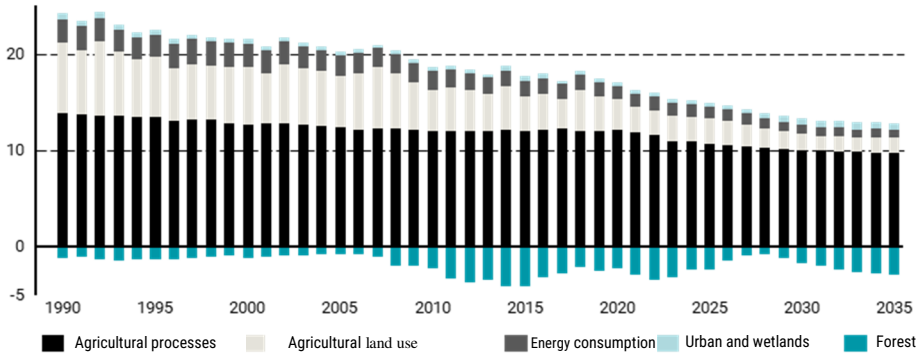
Energy consumption in agriculture, forestry, fisheries and horticulture is not included in the calculation of the sector target for agriculture of a 55-65 per cent reduction in 2030 compared to 1990 from the *Agricultural Agreement* from 2021. This calculation estimated sectoral emissions to account for *approx. 42 per cent of Denmark's total net emissions in 2030.*

Conversely, if agricultural emissions and removals are calculated without emissions and removals in forests, urban areas and wetland areas, agricultural emissions are estimated to account for *approx. 50 per cent of Denmark's total net emissions in 2030*.

Finally, agricultural emissions can be calculated without emissions and removals in forests, urban areas and wetland areas and without energy consumption in agriculture, forestry, fisheries and horticulture. This calculation means that agricultural emissions account for *approx. 46 per cent of Denmark's total net emissions in 2030.*

Figure 2. 6(22)

Emissions and removals 1990-2035 across agriculture, forestry, fisheries and horticulture, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities

Total emissions from the industries include the following areas:

- **Agricultural processes:** Emissions from livestock digestion, fertiliser management and nitrous oxide emissions from cultivating fields. The level of emissions depends, *i.a.*, on the livestock population, especially the development of the cattle and pig population as well as fertilisation and set-aside of agricultural land for extensification.

- **Agricultural, urban and wetland areas:** CO_2e removals and emissions from cropland and grassland in agriculture, including carbon-rich soil, mineral soil and live and dead biomass in fruit trees, windbreaks and the like. There are also emissions from re-established wetland areas and from the conversion of agricultural land to urban areas and infrastructure.

- **Forests and harvested wood products:** CO_2e removals in live biomass in forests and emissions occur from the harvesting/felling of trees and when trees in forests decay.

Removals and emissions depend on, *i.a.*, factors such as the size of the total forest area, afforestation and harvesting.

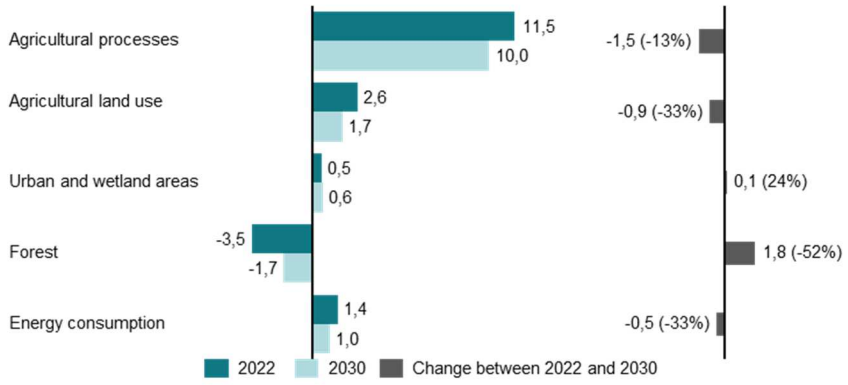
- **Energy consumption in agriculture, forestry, horticulture and fisheries:** Emissions from internal transport, especially including agricultural machinery and fishing vessels as well as process heat, e.g. for heating greenhouses and livestock buildings.

The *Agreement on the green transition of Danish agriculture* (the Agricultural Agreement) from 2021 sets a reduction target for agriculture of 55-65 per cent in 2030 compared to emissions in 1990. The reduction target includes emissions from agricultural processes, land and forests, but not energy-related emissions in agriculture. Greenhouse gas emissions from the sector are estimated to be reduced by 48 per cent in 2030 compared to 1990, corresponding to a gap of 1.5-3.5 million tonnes CO_2e compared to the reduction target.

2.6.6.1 Main reasons for emissions reductions towards 2030

In 2022, emissions from the sector were 12.6 million tonnes CO_2e. By 2030, emissions from agriculture and forestry are estimated to be reduced by approx. 0.9 million tonnes CO_2e. This can be attributed to reductions in emissions from agricultural land, agricultural processes and energy consumption in industries, and an opposite reduction in CO_2e removals from forests and harvested wood products, *see figure 2.6(23)*.

Figure 2.6(23)
Distribution of emissions in 2022 and 2030 across subsectors, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities

The decrease in estimated emissions from agricultural processes is partly due to the expectation of fewer cattle and pigs in production, reducing emissions from animal digestion and fertiliser management. Despite a slight increase in milk production due to an increasing milk yield per cow, fewer cattle are expected in the future. Fewer pigs are expected in the future due to reduced sales opportunities for Danish pork caused by the re-establishment of Chinese pig production following the outbreak of the African swine fever since 2019. Add to that rising feed prices and increasing exports of piglets for fattening and slaughtering abroad.

Furthermore, the implementation of new political initiatives is expected to reduce emissions from fertiliser management. This includes, for example, frequent slurry discharge from pig barns and increased biogasification of slurry. Measures to increase extensification of agricultural land are expected to further reduce fertiliser consumption, thus nitrous oxide emissions from fields.

A reduction in emissions from agricultural land use is also estimated. The development is mainly due to a decrease in the number of carbon-rich agricultural land due to annual mineralisation of the soils and expected set-aside and rewetting of the land which reduces greenhouse gas emissions from these areas.

Finally, energy consumption in agriculture, forestry, horticulture and fisheries is estimated to be reduced as a result of ongoing energy efficiency measures for agricultural machinery and the fishing fleet as well as an expected spread of heat pumps that will reduce emissions associated with low-temperature processes.

Carbon removal in Danish forests is an important part of the Danish climate account. Forests contribute to reducing Denmark's greenhouse gas emissions by removing CO_2 from the atmosphere. Forests and harvested wood products have removed an average of approx. 3 million tonnes CO_2e annually over the past 10 years. This net removal of CO_2e in forests and wood products is estimated to decrease until 2028, after which it will return to current levels by 2035. This development is due to decreasing annual carbon sequestration in Danish forests and in the pool of wood products, partly due to regeneration of old forests.

Emissions from agriculture, forestry, horticulture and fisheries are subject to significant uncertainty as emissions are tied to biological processes that are difficult to determine. For CSO25, for example, emissions from carbon-rich soils can be adjusted as a research project is underway to update emission factors from these areas (cf. *chapter 18 Agricultural land and other land* in *Klimastatus og -fremskrivning 2024).*

The most significant changes compared to CSO23 concern a new calculation of land with carbon-rich soil in Denmark from the Danish Centre for Food and Agriculture (DCA) at Aarhus University and new forest projections from the Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen (cf. *chapter 2.6.4 Changes compared to CSO23*).

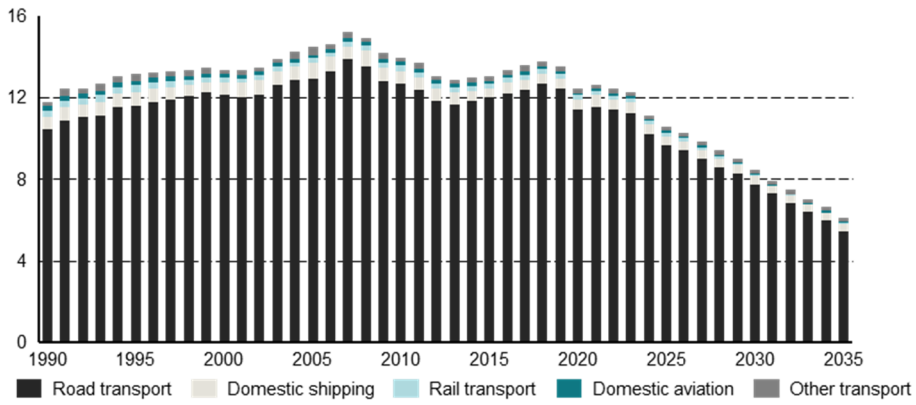
Organic production is included in the projection as the calculation of emissions is based on average data from both conventional and organic production. For CSO24, a project has been initiated with the Innovation Centre for Organic Farming to investigate available data that could be included in a separate calculation of organic production. Collecting data has proven to be difficult, which means that a separate projection of ecology still needs to be made. Opposing effects are expected when splitting organic and conventional production, where some parameters are expected to contribute to reduced emissions and other parameters are expected to contribute to increased emissions in organic production.

2.6.7 Transport

Transport sector emissions in 2022 were at about the same level as in 1990, but emissions are expected to decrease significantly towards 2035, *see figure 2.6(24).* The transport sector is estimated to emit approx. 8.4 million tonnes CO_2e in 2030, corresponding to approx. 33 per cent of Denmark's total emissions. Thus, the transport sector will be the second most emitting sector in 2030.

Figure 2.6(24)

Transport sector emissions and removals 1990-2035 by subsector, million tonnes CO_2e



Note: The figure does not include partially estimated effects of the diesel and road tax from the *Agreement on the partial implementation of the Green Fund*.
Source: Danish Ministry of Climate, Energy and Utilities.

CO_2e emissions from the transport sector are primarily due to the combustion of fossil fuels and are divided into the following subsectors:

- **Road transport:** CO_2e emissions from fuel combustion in cars, vans, lorries, buses and motorcycles. The estimated emissions include all fuel filled up in Denmark, regardless of whether it is subsequently consumed in Denmark or abroad. Conversely, fuel filled up abroad that is estimated to be consumed in Denmark is not included.
- **Rail transport:** CO_2e emissions associated with long-distance and regional trains, S-trains, Metro, light rail, freight trains and other trains such as local trains.

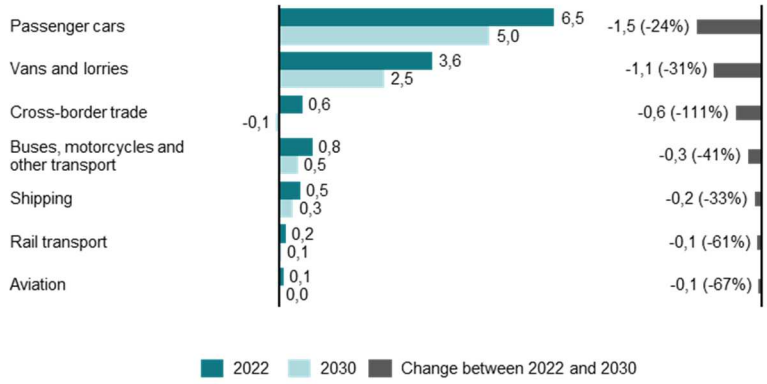
- **Domestic shipping:** CO_2e emissions from shipping between Danish ports and fuel filled up in Denmark and used in shipping from Denmark to Greenland and the Faroe Islands, respectively.
- **Domestic aviation:** CO_2e emissions from aviation between Danish airports and fuel filled up in Denmark and used in aviation from Denmark to Greenland and the Faroe Islands, respectively.
- **Other transport:** CO_2e emissions from the Danish Defence vehicles and recreational craft.

2.6.7.1 Main reasons for emissions reductions towards 2030

By 2030, emissions from the transport sector are estimated to be reduced by approx. 4.3 million tonnes CO_2e mainly due to reductions in road transport emissions, *see figure 2.6(25)*.

Figure 2.6(25)

Emissions in 2022 and 2030 across subsectors in transport, million tonnes CO_2e



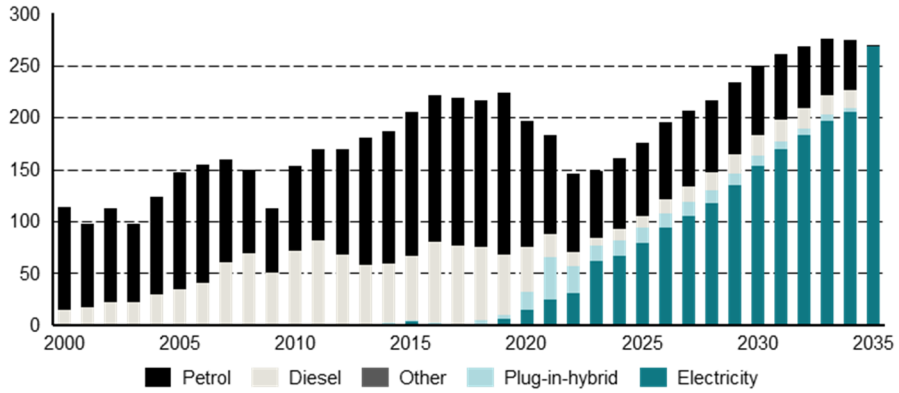
Source: Danish Ministry of Climate, Energy and Utilities.

Sales of electric vehicles have increased significantly in recent years. In 2023, more than 60,000 new electric vehicles were sold, representing over 40 per cent of total new sales. Electric vehicle sales in 2023 is a doubling of sales compared to 2022.

In CSO24, the development of electric vehicle sales is expected to continue. By 2030, electric vehicles are expected to account for more than half of all new sales at approx. 61 per cent, corresponding to approx. 150,000 electric vehicles. This development is supported by, *i.a.*, an expected increase in the supply of electric vehicles and the fact that electric vehicles can fulfil more needs. In addition, a lower vehicle registration fee on the purchase of zero-emission vehicles from the *Agreement on Green Road Transport*.

Electric vehicle sales in 2023 were spread across 74 available models, which is also a significant increase from 2022. In addition, development is supported by factors such as longer range, improved charging infrastructure and the price development of electric vehicles. CSO24 estimates that there will be 750,000 new electric vehicles between 2024 and 2030, *see figure 2.6(26)*.

Figure 2.6(26)
Sales of new cars, thousands



Source: Danish Ministry of Climate, Energy and Utilities.

The sales share of plug-in hybrid vehicles is estimated to decrease as a result of electric vehicles becoming increasingly competitive and the registration fee being phased in faster for electric vehicles than for plug-in hybrid vehicles, *see the Agreement on Green Road Transport*.

Overall, CSO24 estimates that by 2030, there will be approx. 1.2 million zero- and low-emission vehicles consisting of approx. 925,000 electric cars, approx. 200,000 plug-in hybrid cars and approx. 80,000 plug-in hybrid and electric vans.

The reduction in passenger car emissions primarily occurs when a petrol and diesel car is replaced with an electric car, but replacing the fossil fuel fleet can also contribute to reductions as newly sold petrol and diesel cars are, on average, more energy-efficient than the fossil fuel cars they replace. In addition, increased blending of renewable fuels is also estimated to reduce emissions.

The electrification of lorries towards 2030 is expected to be faster in CSO24 than in CSO23. Electric lorries are expected to account for approx. 65 per cent of total sales and approx. 20 per cent of the fleet. The electrification of lorries will be supported by, *i.a.*, 25 new charging stations across the country by 2030 with a maximum of 60 kilometres between charging points on the main road network.

On average, lorries have a shorter life than, for example, passenger cars, so increasing sales shares will have a relatively faster impact on the lorry fleet. To a certain extent, the reduction in carbon emissions for vans and lorries can also be attributed to increased energy efficiency and increased use of renewable fuels.

In 2022, fuel was cheaper to fill up in Denmark compared to Sweden and Germany. This has changed from 2024 as Sweden has lowered both fuel taxes and carbon displacement requirements. The projection therefore assumes that fuel will remain cheaper in Sweden until 2030. Due to tax differences between Denmark and Germany and Sweden, cross-border trade is estimated to be significantly reduced in 2030 compared to 2022.

For both domestic shipping and domestic aviation, emissions in CSO24 are estimated to be reduced towards 2030, including as a result of completely green domestic aviation from 2030.

There is particular uncertainty related to the electrification of road transport, the projection of cross-border trade (cf. *chapter 21 Transport* in *Klimastatus og -fremskrivning 2024),* and the incorporation of the EU regulations *FuelEU Maritime* and *ReFuelEU Aviation*, which both contain flexibility mechanisms to meet the requirements.

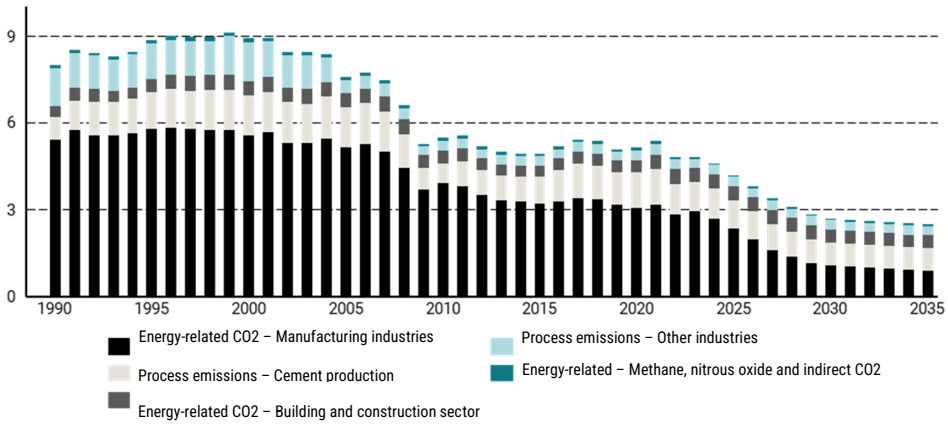
2.6.8 The manufacturing industry and the building and construction sector

Emissions from the manufacturing industry and the building and construction sector fell significantly during the financial crisis around 2008-2009 and have remained relatively unchanged since, *see figure 2.6(27).* Emissions are expected to be significantly reduced in the projection towards 2030. The manufacturing industry and the building and construction sector are estimated to emit approx. 2.7 million tonnes CO_2e in 2030, corresponding to approx. 11 per cent of Denmark's total net emissions in 2030. The cement industry is the single largest source of emissions in the sector and is estimated to

account for almost half of total emissions from the manufacturing industry and the building and construction sector in both 2022 and 2030.

Figure 2.6(27)

Emissions from the manufacturing industry and the building and construction sector 1990-2035 by type, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

The production of goods and semifinished products as well as the construction of buildings and roads are activities that typically require a significant amount of energy. In addition, the processing of certain raw materials and the use of refrigerants may, per se, lead to greenhouse gas emissions, known as process emissions and F-gases.

Greenhouse gas emissions in the manufacturing industry and in the building and construction sector are calculated according to the following types:

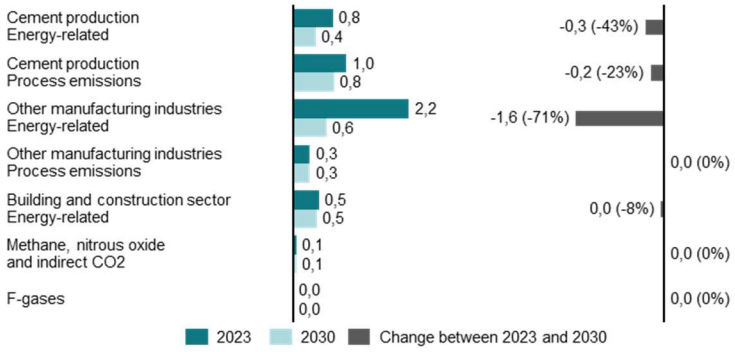
- **Energy-related emissions**: Emissions from the use of fossil fuels for, *i.a.*, space and process heating and internal transport (e.g., excavators and construction machinery).
- **Process emissions from cement production**: Carbon emissions associated with the processing of raw materials such as clay and chalk for cement production, e.g., the calcination process in cement production.
- **Process emissions from other industries**: CO_2e emissions associated with the processing of raw materials for other mineralogical manufacturing processes such as burning clay for brick production.
- **F-gases**: F-gases are greenhouse gases that are leaked into the atmosphere, for example when using air conditioning for cooling.

2.6.8.1 Main reasons for emissions reductions towards 2030

By 2030, emissions from the manufacturing industry and the building and construction sector are estimated to be reduced by approx. 2.1 million tonnes CO_2e, *see figure 2.6(28).*

Figure 2.6(28)

Emissions in 2023 and 2030 across emission types in the manufacturing industry and in the building and construction sector, million tonnes CO_2e



Note: Energy statistics do not break down emissions at detailed industry level, and estimated values for 2023 are therefore used as a reference to calculate energy-related emissions from the cement industry separately from manufacturing industries
Source: Danish Ministry of Climate, Energy and Utilities.

A significant decrease in white and grey cement production is recorded in 2022 and 2023, and this is reflected in the cement production projection in CSO24. This decrease has resulted in a reduction of approx. 0.5 million tonnes CO_2e from 2021 to 2023. The reduction in emissions from the cement industry towards 2030 can be attributed to increased use of biomass and waste and an estimated decrease in the total cement production as a result of the introduction of the carbon tax from the *Agreement on the Green tax reform for industry etc.* In addition, reductions are expected from technological developments in cement types, which are estimated to contribute to further reductions in both energy-related and process-related emissions from cement production.

Other manufacturing industries are estimated to reduce emissions as gas consumption is converted, with biogas production estimated to exceed piped gas consumption from 2029. Furthermore, reductions in emissions are estimated because of utilisation of residual and ambient heat, electrification and energy savings. Of the total reduction for other manufacturing industries of 1.6 million tonnes CO_2e by 2030, conversion of piped gas is estimated to represent a reduction of approx. 0.9 million tonnes CO_2e.

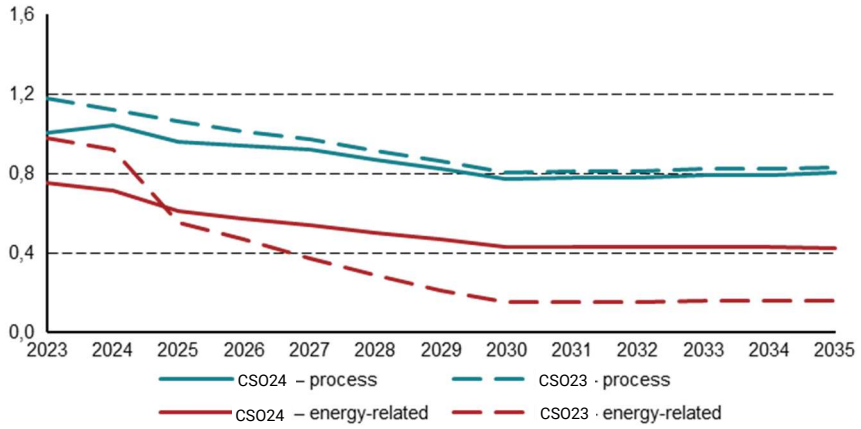
CSO24 estimates that there will be no significant carbon reduction in the building and construction industries. The majority of industrial emissions are related to internal transport, including excavators and construction machinery. It is estimated that electrification of these machines will only be profitable to a limited extent under current regulations.

The most significant changes compared to CSO23 relate to an upwardly adjusted expectation for activities, thus energy consumption and emissions in the sector. In addition, changes in fuel and allowance prices mean that, unlike in CSO23, the cement industry is not estimated to switch to gas consumption in CSO24. On the other hand, there was a reduction in white cement production in 2022, mainly due to reduced exports to North America, which is expected to cause a long-term change in the market. CSO24 therefore estimates a lower production level towards 2025 than was the case in CSO23. Overall, these changes are estimated to result in lower emissions from cement production in 2025 in CSO24 than in CSO23, but higher emissions from cement production in 2030 in CSO24 than in CSO23, *see figure 2.6(29).*

There is uncertainty about developments in cement production, including conversion to gas (cf. *chapter 22 Manufacturing industry and building and construction* in *Klimastatus og -fremskrivning 2024)*.

Figure 2.6(29)

Emissions from cement production in CSO24 compared to CSO23, million tonnes CO_2e



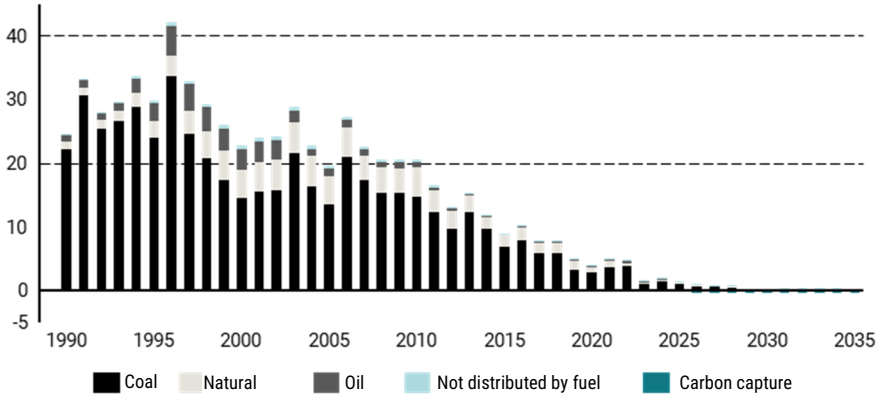
Source: Danish Ministry of Climate, Energy and Utilities.

2.6.9 Electricity and district heating

The electricity and district heating sector is estimated to have net emissions of approx. -0.3 million tonnes CO_2e in 2030, *see figure 2.6(30)*. In 1990, the electricity and district heating sector was the sector with most emissions in Denmark but is estimated to be the first sector to have net removals of greenhouse gases overall. In addition, the electricity and district heating sector is estimated to contribute more to the reduction of greenhouse gas emissions from other sectors, for example through electrification of transport, heating and industrial processes.

Figure 2.6(30)

Electricity and district heating sector emissions and removals 1990-2035 by subsector, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions in the sector are primarily associated with the production of electricity and district heating plants using fossil fuels. The projection also includes the decision of the CCUS pool with carbon capture at the Avedøre and Asnæs stations.

Emissions and removals of greenhouse gases in the electricity and district heating sector are divided into the following types of stations:

- **Large and small CHP stations**: Emissions from large and small CHP stations that produce both electricity and district heating. These include coal, gas and biomass CHP stations.
- **Wind power and photovoltaic systems**: Electricity from wind and photovoltaic systems is produced using renewable energy and is therefore CO_2e neutral.

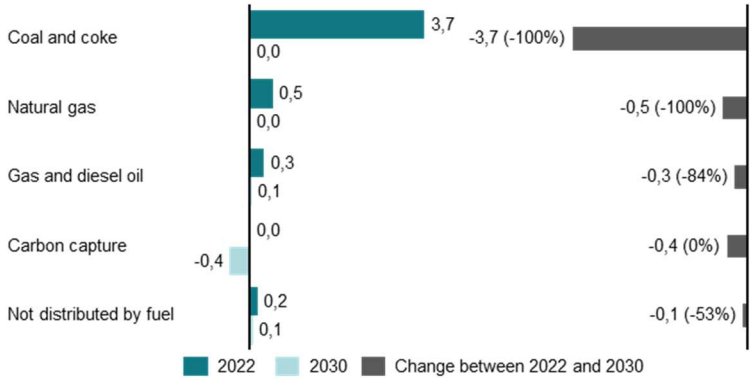
- **Boilers, heat pumps, photovoltaic and residual heat plants**: Emissions from plants that produce district heating. The processes involve the use of electricity generated through the use of fossil fuels or directly through renewable energy such as solar power.
- **Carbon capture**: CO_2e removal in the electricity and district heating sector includes carbon capture at the biomass-fired CHP stations Avedøre and Asnæs.

2.6.9.1 Main reasons for emissions reductions towards 2030

By 2030, emissions from the electricity and district heating sector are estimated to be reduced by approx. 5.1 million tonnes CO_2e, *see figure 2.6(31).*

Figure 2.6(31)

Emissions in 2022 and 2030 across the electricity and district heating sectors, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

In CSO24, a significant decrease in emissions from the use of fossil fuels in the electricity and district heating sector is expected. The reduction is partly due to the phase-out of coal-fired CHP stations with the closure of the last coal-fired power station, Nordjyllandsværket, in 2028 and the transition of grid consumption to be 100 per cent green from 2029 in terms of inventory. Finally, the sector as a whole is estimated to have negative net emissions from 2029 due to the establishment of carbon capture at the Avedøre and Asnæs stations.

Total net electricity consumption (including grid losses) is estimated to almost double from 35 TWh in 2022 to 63 TWh in 2030 with increased consumption across all sectors. This development is particularly driven by data centres and new technologies such as heat pumps in households and district heating, PtX and the electrification of the transport sector, particularly with more electric vehicles (cf. *chapter 2.6.3 The main cross-sectoral drivers for reductions in CSO24*).

The increase in electricity consumption is estimated to be offset by an even greater increase in electricity production by which Denmark is expected to become a net exporter of electricity from 2024. The combination of increasing demand for electricity, higher costs for thermal plants due to decreasing subsidies, rising carbon allowance prices and decreasing costs for onshore wind and solar power is estimated to lead to an increase in capacity from RE technologies and associated electricity production.

In the *2022 Climate Agreement on Green Electricity and Heat*, a majority of the Danish Parliament agreed to ensure framework conditions to enable a quadrupling of electricity production from solar energy and onshore wind by 2030, corresponding to an annual electricity production from solar and onshore wind of approx. 50 TWh. The estimated onshore RE production in CSO24 is approx. 40 TWh in 2030, which roughly corresponds to a tripling. Of this, approx. 25 TWh is estimated to come from solar energy and approx. 14 TWh from onshore wind. Compared to CSO23, RE production is thus estimated to increase by 8 TWh, which is mainly attributed to expectations of more PV projects in CSO24. Onshore energy parks have not yet been designated, and electricity production from future energy parks is therefore not quantified in CSO24, *see sector assumption note electricity and district heating*.

In addition, 4 GW is estimated from future offshore wind tenders as a result of profitability assessments of offshore wind projects, *see sector assumption note electricity and district heating*. Profitability assessments are subject to considerable uncertainty, and their results are highly sensitive to the considered assumptions. In April 2024, the Danish Energy Agency launched an offshore wind tender for 6 GW offshore wind towards 2030 with the possibility of establishing 10 GW offshore wind

or more. As no bids were received for the three areas in the North Sea (3 GW) by the deadline 5 December 2024, a dialogue with the market actors has immediately been initiated. The tenders of the last three areas (3 GW) are expected to be decided in 2025, and their results can then be incorporated into CSO26.

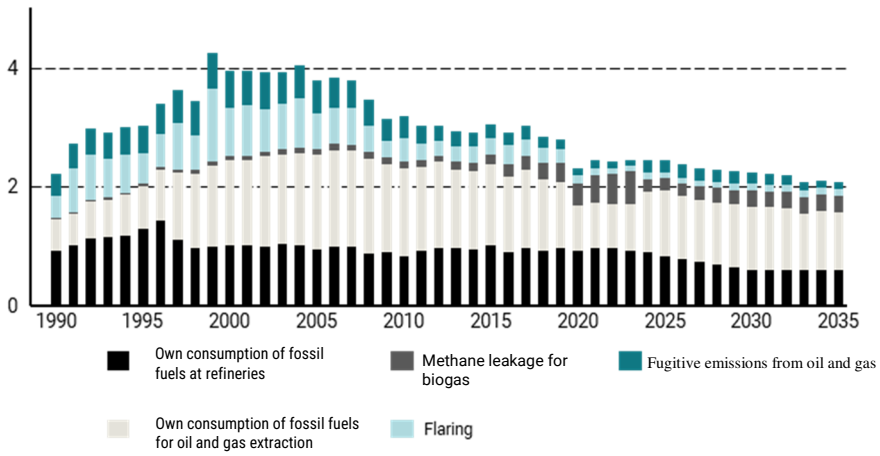
Based on the phase-out of fossil fuels, uncertainties regarding the reduction of emissions in the electricity and district heating sector are estimated to be low in 2030. This was due to the fact that reinvestment in new coal-fired power stations in particular is not considered profitable due to falling costs for onshore wind and solar power. The development of electricity production, consumption, prices and net exports is subject to uncertainty due to changes in offshore wind development, data centres, fuel prices and weather variations.

2.6.10 Production of oil, gas and renewable fuels

Emissions from the production of oil, gas and renewable fuels peaked between 1999 and 2004. Since then, emissions have been slightly decreasing, which is expected to continue towards 2035, *see figure 2.6(32)*. The production of oil, gas and renewable fuels are estimated to emit approx. 2.2 million tonnes CO_2e in 2030, corresponding to approx. 9 per cent of Denmark's total net emissions in 2030.

Figure 2.6(32)

Emissions from the production of oil, gas and renewable fuels 1990-2035 by type, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions from the production of oil, gas and renewable fuels include the following areas:

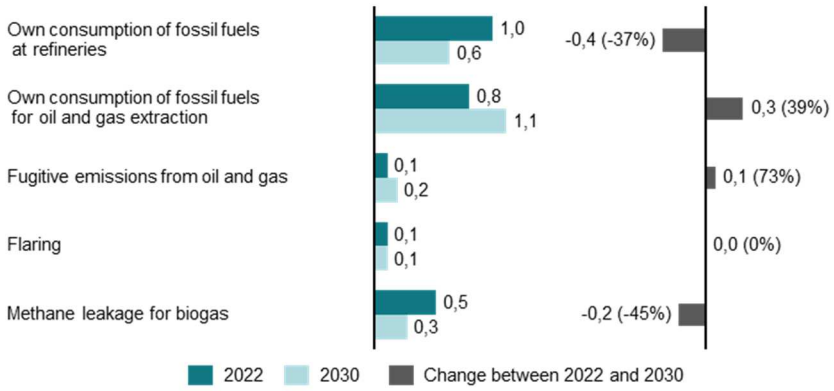
- **Own consumption:** CO_2e emissions from the consumption of gas for electricity production during oil and gas extraction in the North Sea.
- **Refineries:** Emissions from the two Danish refineries include energy consumption for heating the refining process as well as electricity and heat production at the refinery plants, most of which is used in production at the refineries.
- **Flaring**: Emissions from controlled burning of surplus methane from oil and gas production and refining to reduce the greenhouse gas impact of direct methane gas emissions.
- **Fugitive emissions:** Emissions from, *i.a.*, evaporation and leaks that occur as part of the extraction, production and transport of oil and gas products.
- **Renewable fuels:** The emissions and energy consumption of Power to X (PtX) and biofuels including biogas production and the related methane leakage.

2.6.10.1Main reasons for emissions reductions towards 2030

By 2030, emissions from the production of oil, gas and renewable fuels are estimated to be reduced by approx. 0.2 million tonnes CO_2e, *see figure 2.6(33)*.

Figure 2.6(33)

Emissions in 2022 and 2030 across types in the production of oil, gas and renewable fuels, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions from oil and gas extraction are estimated to increase towards 2030. This is partly due to the redevelopment of the Tyra field extraction platform in 2019-2023, which will be operational again from 2024. Emissions associated with own consumption and fugitive emissions from oil and gas extraction are estimated to increase by a total of approx. 0.4 million tonnes CO_2e by 2030.

Emissions from the own consumption of fossil fuels at the refineries are estimated to be reduced by around 0.4 million tonnes CO_2e in 2030 compared to 2022. The reduction is due to a decline in activities and increased consumption of renewable energy as a result of the phase-in of the carbon tax from the *Agreement on the Green tax reform for industry etc.* from 2025. The estimated effect of the carbon tax is recognised as a percentage decrease in activities but can occur in several ways across the different refineries in Denmark. It can also occur by converting Danish refineries towards the production of green fuels such as bio-oil or methanol produced from green hydrogen, which is used to, *i.a.*, fulfil blending requirements and reduction targets in international aviation and shipping.

From 2029, Danish biogas production is estimated to exceed the consumption of piped gas. This will make gas 100 per cent green in terms of inventory. The regulation of methane losses from biogas production is also expected to contribute to a reduction in emissions from methane leakage by approx. 0.2 million tonnes CO_2e in 2030 compared to 2022 despite the fact that biogas production is estimated to almost double over the same period.

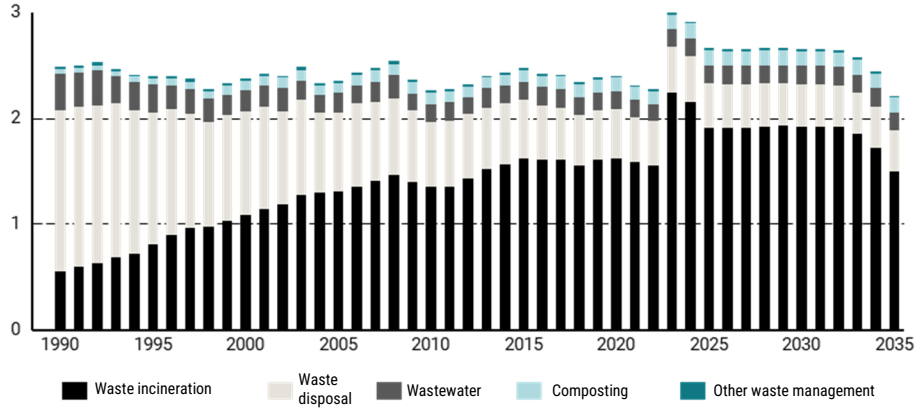
The most significant changes compared to CSO23 concern an upwardly adjusted own consumption for oil and gas extraction and a delayed decision for the first biogas tender. In addition, the total aid amount from the biogas pools is reduced after the inclusion of VAT costs that were previously not included in the calculation of the aid amount. This means that a slightly smaller biogas expansion towards 2030 is estimated in CSO24 compared to CSO23.

2.6.11 Waste

Emissions from the waste sector have remained relatively constant from 1990 towards 2022. For CSO24, future emissions are adjusted upwards due to a new waste projection, *see figure 2.6(34).* The waste sector is estimated to emit approx. 2.7 million tonnes CO_2e in 2030, corresponding to approx. 10 per cent of Denmark's total emissions in 2030.

Figure 2.6(34)

Waste sector emissions 1990-2035 by subsector, million tonnes CO_2e



Note: The new waste projection had a data breach between 2022 and 2023. The development towards 2030 is therefore compared to 2023.
Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions from the waste sector include the following subsectors:

- **Waste incineration**: CO_2e emissions from the incineration of waste material.
- **Waste disposal**: CO_2e emissions from the release of methane for the disposal of organic waste.
- **Wastewater**: CO_2e emissions from sewer systems, wastewater treatment plants and septic tanks.
- **Composting**: CO_2e emissions from the release of methane and nitrous oxide from composting garden and park waste, organic waste and sludge.
- **Other**: In addition to the above, a minimal amount of greenhouse gases are released from other processes within the waste sector.

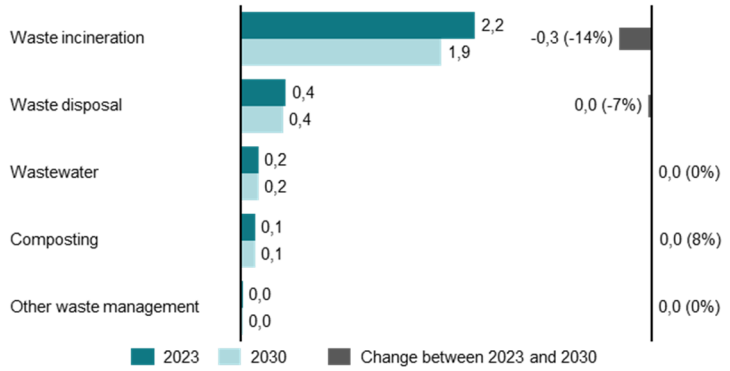
Due to a new waste projection from the Danish Environmental Protection Agency, emissions from waste incineration are adjusted upwards compared to CSO23. The new waste projection model is based on the environmental macro model GrønREFORM. The increase is due to the model projecting an upward adjustment of both the waste volume suitable for incineration and its fossil share and a downward adjustment of expectations for waste recycling in Denmark. The introduction of the model has led to a significant upward adjustment of the waste volume suitable for incineration and the fossil share, thus emissions, compared to CSO23. There is also a data breach in the transition from historical data in 2022 to projection data in 2023 due to a difference in methodology for calculating the fossil share.

2.6.11.1Main reasons for emissions reductions towards 2030

By 2030, emissions from the waste sector are estimated to be reduced by approx. 0.3 million tonnes CO_2e, *see figure 2.6(35)*.

Figure 2.6(35)

Emissions in 2023 and 2030 across types in the waste sector, million tonnes CO_2e



Note: The new waste projection had a data breach between 2022 and 2023. The development towards 2030 is therefore compared to 2023.
Source: Danish Ministry of Climate, Energy and Utilities.

Emissions from waste incineration have increased historically due to increasing waste volumes suitable for incineration and accounted for approx. 76 per cent of emissions from the waste sector in 2023. CSO24 estimates reduced emissions from waste incineration based on the expectation that the total waste volume suitable for incineration will be reduced by 2030 due to a reduction in the volume of imported waste.

In 2023, the used incineration capacity at Danish waste incineration plants is estimated to be approx. 3.5 million tonnes of waste of which approx. 0.3 million tonnes consist of imported waste suitable for incineration. From 2025, it is estimated that there will be no more imports of waste for incineration. The reason is that it is assumed that imported waste has higher transport costs than Danish waste. This means that from 2025, the Danish waste incineration capacity is expected to be adapted to the Danish waste volumes suitable for incineration, including garden waste and hazardous waste. A number of waste incineration plants are estimated to face major reinvestments after 2032 which will no longer be profitable. On this basis, exports of Danish waste are estimated.

Estimates of waste volumes are subject to uncertainty based on a wide range of assumptions about market trends and technical development (cf. *chapter 2.6.15* on *Uncertainties and sensitivities* and *chapter 25 on Waste incineration* in *Klimastatus og -fremskrivning 2024*).

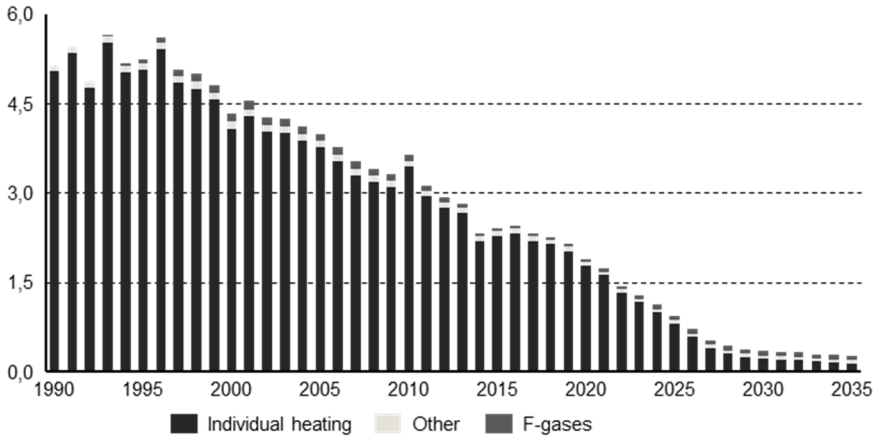
2.6.12 Households

In 2021, the final energy consumption of households accounted for approx. one third of the total final energy consumption. CSO24 accounts for a large part of household emissions in other sectors related to producing services for households, e.g. the electricity and district heating sector, the waste sector and the transport sector. Household emissions in CSO24 are therefore primarily from individual heating.

Household emissions have decreased significantly since the 1990s until 2022, and a further significant reduction in sectoral emissions is projected until 2030, *see figure 2.6(36).* Households are estimated to emit approx. 0.4 million tonnes CO_2e, corresponding to approx. 1.4 per cent of Denmark's total emissions in 2030.

Figure 2.6(36)

Household emissions 1990-2035 by emission source, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions from households include the following subsectors in CSO24:

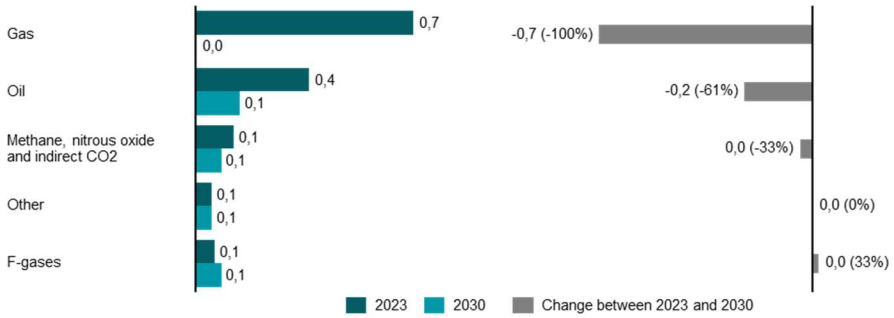
- **Individual heating**: Emissions from household heating, primarily from the use of oil burners and gas furnaces.
- **F-gases**: Emissions from refrigerants used in e.g. household heat pumps and from propellants used in medical asthma inhalers.
- **Other**: Emissions from gas patio heaters, petrol lawn mowers etc.

2.6.12.1 Main reasons for emissions reductions towards 2030

By 2030, emissions from households are estimated to be reduced by approx. 1.1 million tonnes CO_2e, *see figure 2.6(37)*.

Figure 2.6(37)

Emissions in 2023 and 2030 across emission sources in households, million tonnes CO_2e



Note: The figure shows the estimated change from 2023 to 2030. Energy consumption in 2022 is estimated to be extraordinarily low due to high energy prices, and 2023 is therefore used as the reference year for households rather than 2022 (cf. *chapter 27 Households* in *Klimastatus og -fremskrivning 2024*).
Source: Danish Ministry of Climate, Energy and Utilities.

CSO24 estimates a decrease in emissions from gas furnaces of approx. 0.7 million tonnes CO_2e between 2023 and 2030. The reduction is mainly due to an increasing RE share of piped gas where biogas production is estimated to exceed Danish consumption of piped gas from 2029 (cf. *chapter 24 Production of oil, gas and renewable fuels* in *Klimastatus og -fremskrivning 2024)*. The remaining gas furnaces use piped gas.

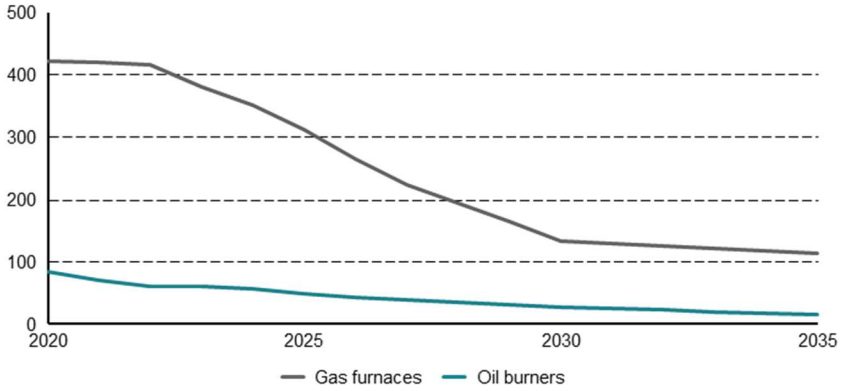
Emissions from oil burners are estimated to fall from approx. 0.4 million tonnes CO_2e in 2023 to approx. 0.1 million tonnes CO_2e in 2030. The reduction in the number of households heated with oil burners is partly due to the fact that alternatives such as heat pumps will often be cheaper as well as the possibility to apply for aid for heat pumps through the Heat Pump Pool and the Scrapping Scheme. In addition, expanding the district heating network will enable more households to switch to district

heating from fossil heating sources. However, the majority of households with oil burners are located outside areas where district heating is expected to be introduced.

By 2023, an estimated 60,000 households will use oil burners while an estimated 380,000 households will use gas furnaces as their primary heating. It is estimated that in 2030, around 30,000 households will use oil burners while around 130,000 households are estimated to use gas furnaces as their primary heating, *see figure 2.6(38).*

Figure 2.6(38)

Households with oil burners and gas furnaces as primary heating, thousands



Note: In this context, households are defined as occupied dwellings.
Source: Danish Ministry of Climate, Energy and Utilities.

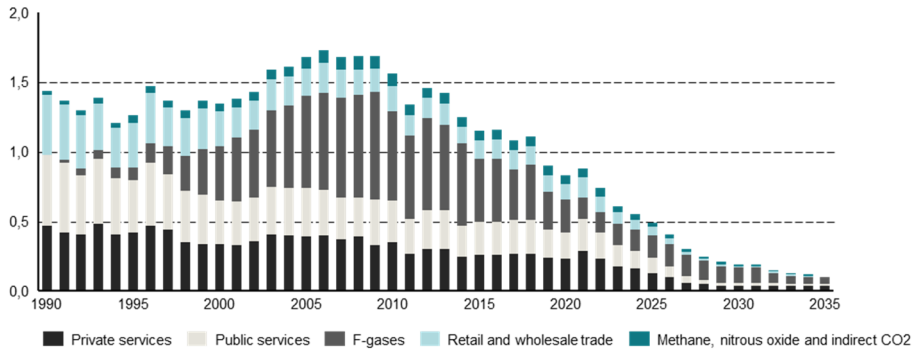
There is some uncertainty about the phase-out of oil burners and gas furnaces and the costs associated with the transition to alternative forms of heating such as heat pumps which may vary between buildings.

2.6.13 The service sector

Emissions from the service sector fell during the financial crisis in 2008-09 and have since been continuously reduced, *see figure 2.6(39).* A continuous ongoing reduction of emissions is projected until 2030. The service sector is a small part of total emissions with estimated greenhouse gas emissions of approx. 0.2 million tonnes CO_2e in 2030. This corresponds to less than 1 per cent of Denmark's total net emissions in 2030.

Figure 2.6(39)

Service trade emissions 1990-2035 by subsector, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

Greenhouse gas emissions from the service sector include the following subsectors:

- **Retail and wholesale trade** which includes supermarkets, pharmacies and animal feed distributors.
- **Public services** which include daycare centres, schools and hospitals.

- **Private services** which include restaurants, financial institutions and data centres.
- Methane, nitrous oxide and indirect carbon emissions from leakage from e.g. gas furnaces.
- **F-gases** used for cooling and heat pumps.

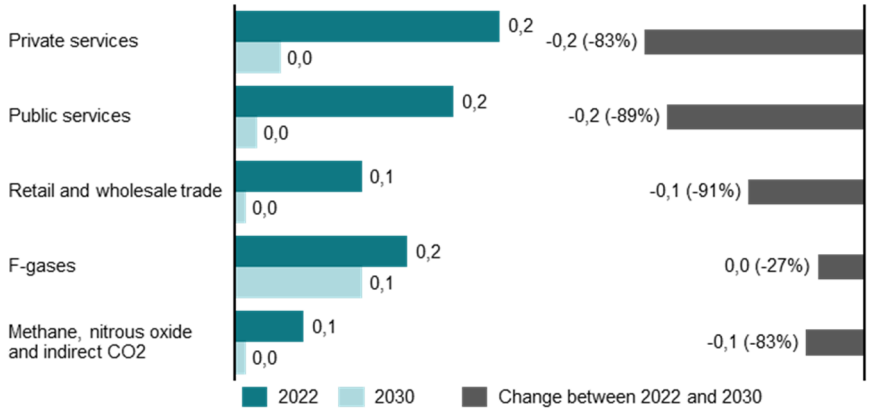
CO_2e emissions from retail and wholesale trade, public services and private services are due to internal transport and space heating. Emissions from space heating in the service trades occur when fossil heat sources such as gas furnaces and oil burners are used. If electricity or district heating is used, these emissions are reported in the electricity or district heating sectors (cf. *chapter 23 Electricity and district heating* in *Klimastatus og -fremskrivning 2024)*. Internal transport covers fossil fuels, e.g. for forklifts.

2.6.13.1Main reasons for emissions reductions towards 2030

By 2030, emissions from service trades are estimated to be reduced by approx. 0.6 million tonnes CO_2e, *see figure 2.6(40).* The majority of this reduction comes from lower space heating emissions and the use of F-gases with a lower climate impact.

Figure 2.6(40)

Emissions in 2022 and 2030 across subsectors in service trades, million tonnes CO_2e



Source: Danish Ministry of Climate, Energy and Utilities.

CSO24 estimates a total decrease in emissions from retail and wholesale trade, public services and private services of approx. 0.5 million tonnes CO_2e between 2022 and 2030. This is because fossil piped gas and oil are expected to be replaced by heat pumps and biogas.

From 2022 to 2030, emissions from methane, nitrous oxide and indirect CO_2 are estimated to be reduced by approx. 0.1 million tonnes CO_2e as a result of phasing out fossil fuels as these emissions occur as leakage during combustion and storage.

In addition, emissions from F-gases are estimated to be reduced by less than 0.1 million tonnes CO_2e which is mainly due to the *Climate Agreement for Energy and Industry etc.* from June 2020, which further tightens regulations and increases taxes on the use of F-gases.

Compared to CSO23, CSO24 anticipates a slight increase in estimated emissions towards 2025 due to a slower phase-out of oil. In addition, an updated projection of fuel prices has been made for CSO24. Furthermore, the revision of the EU Emissions Trading System has been implemented. From 2027, the system will have a minor effect on the total emissions from heating buildings in the new system (ETS2).

2.6.14 Carbon Capture and Storage (CCS)

CCS, *"carbon capture and storage*", is a collective term for a number of technologies that can capture CO_2, e.g. from cement production and waste incineration, and store it underground. No commercial-scale CCS plants have yet been built in Denmark, but since 2020, a number of political agreements have been made to promote the deployment of CCS in Denmark.

Two tenders have been organised so far:

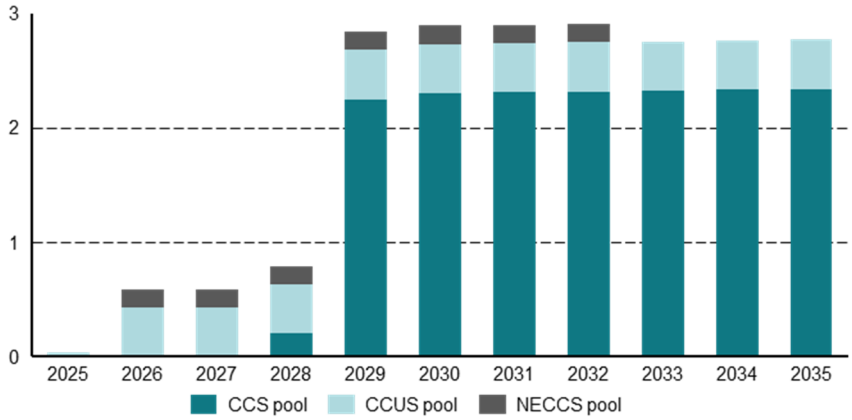
- **The first phase of the CCUS pool** agreed in the *Climate Agreement for Energy and Industry etc.* of 22 June 2020. The funds from the first phase of the CCUS pool were awarded in May 2023 to the successful tenderer with expected operations from December 2025.

- **The NECCS pool** which was decided in the *Partial Agreement on Investments in a Continuously Greener Denmark* of 4 December 2021 as part of the 2022 Finance Act. In April 2024, a contract was signed for the NECCS pool funds which were awarded to three successful tenderers. The projects are expected to contribute carbon capture and storage from 2026.

In addition, the Green Tax Reform (GSR) pool was established in connection with the *Agreement on the Green tax reform for industry etc.* in June 2022. With the agreement on *strengthened framework conditions for CCS in Denmark* from September 2023, the second phase of the CCUS pool and the GSR pool were combined into one CCS pool totalling DKK 26.9 billion. The new total CCS pool will be realised through two tender rounds expected to open in 2024 and 2025, respectively. The tenders will be approx. DKK 10.5 billion and DKK 16.3 billion, respectively, over a 15-year period.

CSO24 estimates that CCS will reduce Danish greenhouse gas emissions in 2030 by approx. 2.9 million tonnes CO_2e. Of this, approx. 2.5 million tonnes CO_2e is estimated to come from the CCS pool and the NECCS pool while the CCUS pool is expected to contribute 0.4 million tonnes CO_2e, *see figure 2.6(41)*. This corresponds to a reduction in Denmark's total CO_2e emissions in 2030 of around 10 per cent. By 2035, greenhouse gas capture is estimated to decrease by approx. 2.7 million tonnes CO_2e, *see figure 2.6(41)*. The decrease is due to the NECCS pool funding commitment expiring in 2032.

Figure 2.6(41)
CCS sector contribution to carbon reductions in 2025-2035, million tonnes CO_2



Note: Estimated reductions of the CCUS pool are recognised in the electricity and district heating sector.
Source: Danish Ministry of Climate, Energy and Utilities.

The first phase of the CCUS pool is expected to contribute to negative emissions of 0.4 million tonnes CO_2 annually from December 2025 to 2045 in the electricity and district heating sector. Carbon capture from the CCUS pool is therefore recognised in this sector in CSO24 (cf. *chapter 23 Electricity and district heating* and *chapter 29 CCS* – both in *Klimastatus og -fremskrivning 2024*).

The NECCS pool is estimated to contribute 0.2 million tonnes CO_2 per year from 2026-2032. From 2029, the CCS pool is expected to contribute approx. 2.3 million tonnes CO_2.

As part of the Ministry of Climate, Energy and Utilities' general model and methodology development, the effect of the CCS pool has been updated based on the *Agreement on strengthened framework conditions for CCS in Denmark* from September 2023. CSO24 still estimates the pool to contribute approx. 2.3 million tonnes CO_2 in 2030 and 2035, with minor deviations in the years from 2025-2029, where a lower carbon capture is estimated compared to CSO24. This is mainly due to the fact that the outcome of the NECCS tender has resulted in fewer reductions than assumed in CSO23. After 2032, more reductions are estimated in CSO24 compared to CSO23.

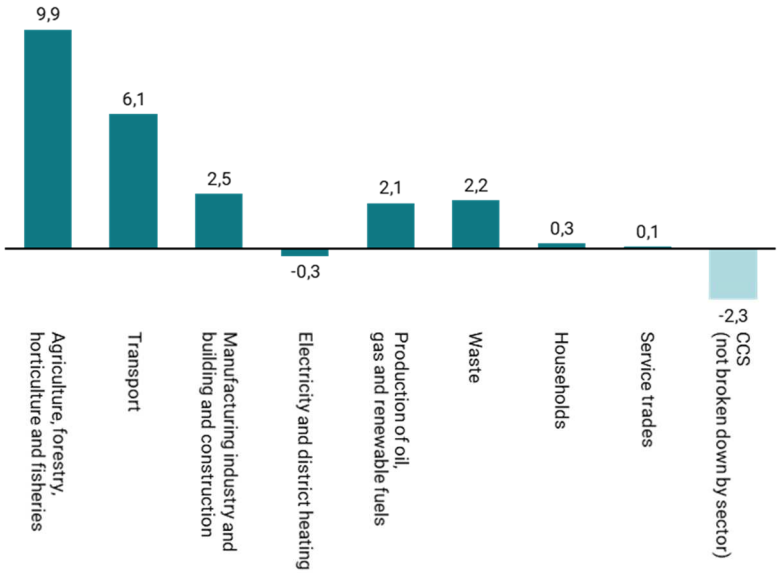
The NECCS pool is expected to contribute negative emissions associated with the production of oil, gas and renewable fuels. The impact of the NECCS pool and the CCS pool is not yet broken down by

sector. This means that the estimated carbon capture from the pools is not included in specific sectors in CSO24 but is calculated as an impact under the CCS category. This will be revisited towards the upcoming projections as tenders are decided.

2.6.15 Development in emissions up to 2035

CSO24 estimates that net greenhouse gas emissions in Denmark will be approx. 20.4 million CO_2e in 2035. This corresponds to a reduction of approx. 74 per cent compared to 1990.
In 2035, the agriculture, forestry, horticulture and fisheries industries and the transport sector are estimated to continue to account for the largest shares of net emissions in Denmark, *see figure 2.6(42).* The two sectors are estimated to account for 49 and 29 per cent, respectively, of total net emissions in 2035.

Figure 2.6(42)
Estimated emissions in 2035 by subsector, million tonnes CO_2e

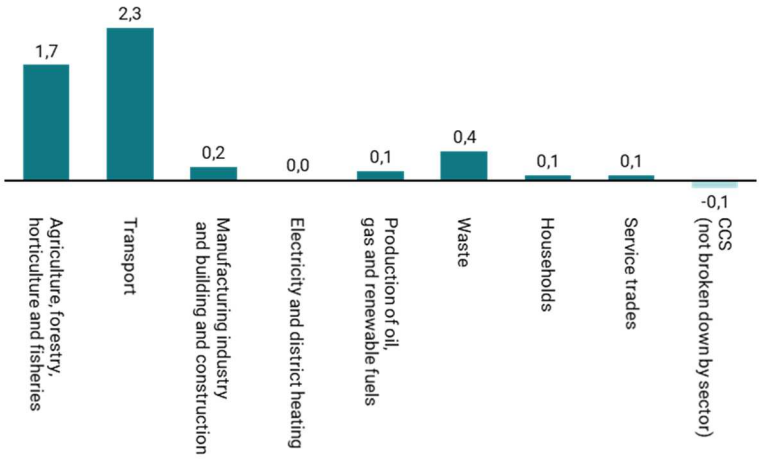


Note: The figure does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*
Source: Danish Ministry of Climate, Energy and Utilities.

The majority of the estimated reductions from 2030-2035 occur in these two sectors*, see figure 2.6(43).* This should be seen in the context of the other sectors having significantly reduced emissions towards 2030.

Figure 2.6(43)

Estimated emission reductions from 2030 to 2035, million tonnes CO_2e



Note: Negative numbers indicate increased emissions. The figure does not include the partially estimated effect of diesel and road tax from the *Agreement on the partial implementation of the Green Fund* and the partially estimated effect of the transition aid from the *Agreement on the implementation of the transition aid from the Green tax reform for industry etc.*

Source: Danish Ministry of Climate, Energy and Utilities.

The expected reductions for agriculture, forestry, horticulture and fisheries are primarily due to increased CO_2e removal in forests and harvested wood products and smaller reductions in agricultural processes and agricultural land use. CSO24 estimates the total removal in live biomass to increase from approx. 1.7 million tonnes CO_2e in 2030 to approx. 2.9 million tonnes CO_2e in 2035.

In the transport sector, emissions from passenger cars are expected to be significantly reduced by 2035, mainly due to continued electrification. Electric cars are estimated to make up around half of the passenger car fleet by 2035 while emissions from vans are estimated to halve compared to 2022 levels. From 2035, the *EU regulation on CO_2 reduction requirements for new passenger cars and vans* sets a requirement of 100 per cent CO_2 reduction for new passenger cars and vans. This requirement is, de facto, estimated to stop new sales of fossil-fuelled cars and vans from 2035.

Electrification of lorries is estimated to accelerate after 2030. A significant increase in sales of electric lorries is expected from 2029 onwards as electric lorries are expected to become more profitable.

The reduction in emissions from the waste sector is primarily due to reduced emissions from waste incineration which is estimated to fall from approx. 1.9 million tonnes CO_2e in 2030 to approx. 1.5 million tonnes CO_2e in 2035. From 2032, a number of waste incineration plants are expected to face reinvestments that are not deemed profitable for them to undertake. For this reason, exports of Danish waste for incineration abroad are expected from 2032. However, the profitability of opening new waste incineration capacity in Denmark from 2032 has not been estimated.

The change for CCS is due to the NECCS pool being decided and the first phase of the GSR and CCUS pools being merged into a new pool, updating the estimate for their impact. Overall, this is estimated to lead to lower removals from CCS between 2025 and 2032, primarily due to a lower estimated impact from the NECCS pool.

Across the sectors, a continued transition of the primary energy consumption is estimated to continue, particularly from oil to renewable energy sources such as wind and solar power. Specifically, energy consumption from oil is estimated to decrease from 186 PJ in 2030 to 145 PJ in 2035 while energy consumption from wind and solar energy is estimated to increase from 234 PJ to 306 PJ over the same period. This transition must be seen in the context of the continued electrification of several sectors (cf. *chapter 2.6.3 The main cross-sectoral drivers for reductions in CSO24*).

2.6.16 Uncertainties and sensitivity calculations

The projection is subject to uncertainty. The further into the future the projection estimates greenhouse gas emissions and removals, the greater the uncertainty associated with the estimated impact. The

uncertainty is mainly related to assumptions and estimates of external variables that are sensitive to unforeseen developments in prices, behaviour and technology as well as weather fluctuations etc.

To illustrate key uncertainties and the importance of assumptions in the projections, a number of sensitivity calculations have been performed. They are used to show how sensitive the projection (e.g. road transport emissions) is to changes in key assumptions (e.g. purchase price of electric lorries).

Across sectors, there are several general developments that contribute to emission reductions (cf. *chapter 2.6.3 The main cross-sectoral drivers for reductions in CSO24*). The uncertainties in these cross-cutting drivers of reductions thus mainly revolve around the speed and timing of the transition. This is influenced by several variables, including price differences and competition with alternative modes of transport and heating.

Each sector chapter discusses uncertainties and sensitivity calculations for the relevant sector. The main uncertainties are related to projections in the agricultural and forestry sectors, waste projections, cross-border trade in fuels as well as CCS and general uncertainties due to cyclical fluctuations.

Agricultural processes and land use
In general, the calculation of emissions and removals in agricultural processes and the LULUCF sector is estimated to be more uncertain than for most other sectors in CSO24. This is partly because these are complex biological processes that are difficult to quantify.

DCE estimates that there is an overall uncertainty of approx. ±44 per cent for the historical calculation of emissions from agricultural processes while the uncertainty in the projection must be considered significantly higher as a number of variables are difficult to predict. For land, the uncertainties are also very high for both mineral soils and carbon-rich soils as carbon pool changes depend on many uncertain variables.

There is generally low uncertainty for activity data in the emission inventory due to high data collection, primarily by the Danish Agricultural Agency. Uncertainty in the projection is particularly related to emission factors and the models behind the emission calculations. Continuously updating and improving methods can therefore contribute to the figures changing.

Carbon-rich soil
In 2020, a research project on an improved emissions inventory for carbon-rich land was initiated. As part of the project, DCA has prepared the new mapping of carbon-rich land, which is incorporated in CSO24. In addition, GEUS has mapped the water level on cultivated, carbon-rich agricultural land. The final new model is still awaited. It includes updated emission factors and the inclusion of the influence of the water level. The new model for emissions from Danish carbon-rich land is expected to be incorporated into CSO25.

The calculations of emissions from carbon-rich soil in CSO24 involve uncertainty about the level of emissions from carbon-rich soils with different organic carbon content. GEUS' water level mapping shows that some of the areas are less drained than previously assumed. DCE states that it is not yet possible to say whether emissions from carbon-rich soil will be higher or lower with the upcoming calculation model as opposing impacts are expected from various subprojects.

There is also general uncertainty as to when the effect of carbon-rich agricultural land set aside will materialise. Among other things, it is uncertain how long it will take from the time of the allocation until land is actually set aside and wetted. For CSO24, an assumption is made that it takes an average of five years from the allocation of funds until the effect is realised. This is based on experience from the Danish Agricultural Agency, the Danish Environmental Protection Agency and the Danish Nature Agency. This assumption has been adjusted since CSO23 in which the assumption was three years from the allocation to effect. The land set aside, including the distribution over the years, is therefore subject to great uncertainty.

Forest projection
Basically, the calculation and projection of emissions and removals from forests and harvested wood products as a whole is considered to be associated with greater uncertainty than for most other sectors. The reason is that annual net emissions and removals are a result of small changes in large carbon pools.

Specifically, IGN estimates an annual uncertainty of approx. 1.5 million tonnes CO_2e in historical forest emissions and removals in live biomass. In addition, there are major uncertainties concerning emissions from forest soils. The uncertainties associated with the projection of emissions up to 2035 from forest biomass and soils are expected to be significantly higher.

IGN expects that the new forest projection model will, all things being equal, reduce the uncertainty associated with predicting the amount of tree growth and felling that will take place each year. The actual management of the forest area in the coming years depends on many factors besides the age of the trees, e.g. economy, prices and demand.

The development of the forest carbon pool is therefore subject to considerable uncertainty, and shifts in harvesting could affect the actual process in the years to come. Forest statistics used as a basis for the projection are based on data collected in the period 2018-2022. It is therefore possible that trees that are expected to be felled in the projection have already been felled. Thus, it is possible that some of the reduction in the CO_2e removal in the next five-year period of the projection has already been realised.

Waste
The projection of emissions in the waste sector is based on a number of estimates and assumptions, including the Ministry of the Environment's projections of waste suitable for incineration, energy prices, foreign willingness to pay etc. The sector is also expected to undergo a number of radical changes, including exposure to competition and new tax rates from the *Agreement on the Green tax reform for industry etc.*

Sensitivities have been prepared for Danish waste volumes for incineration and for import/export prices of waste suitable for incineration which, however, only show limited sensitivity (cf. *chapter 25 Waste incineration* in *Klimastatus og -fremskrivning 2024*).

The estimates for Danish waste volumes for incineration affect the projected emissions. The estimate affects both the profitability of the incineration plants and direct emissions through the fossil content. The projections are based on a number of assumptions for e.g. waste generation, sorting, recycling options etc. The Danish Environmental Protection Agency's projection model is still undergoing technical development which may lead to changes in the projection results in the future.

All things being equal, higher volumes of Danish waste than anticipated in CSO24 will lead to higher emissions. The reason is that Danish waste is assumed to be more profitable than importing waste due to lower transport costs. Therefore, an increase in Danish waste volumes will result in more Danish waste incineration plants becoming profitable, thereby maintaining more capacity. Conversely, a lower volume of Danish waste than anticipated in CSO24 will, all things being equal, lead to fewer emissions. This is also because the smaller volume of Danish waste will generally make the sector less profitable, resulting in capacity closing as early as 2025. However, from 2030 onwards, capacity is estimated to gradually decrease, even if waste volumes are higher than anticipated in CSO24, as a number of plants are facing reinvestments and are therefore expected to close (cf. *chapter 25 Waste incineration* in *Klimastatus og -fremskrivning 2024*).

Cross-border trade in the transport sector
The estimated emissions associated with cross-border fuel trade are subject to uncertainty. The projection is based on estimated differences in fuel prices in Denmark and neighbouring countries. This has an impact on the estimate of where it is considered most profitable to fill up diesel and, to some extent, petrol. Cross-border fuel trade is particularly sensitive to the price of diesel as lorry transport largely occurs across national borders. Based on current price differences and future price differences with current regulation, large fluctuations in cross-border trade are estimated.

There is particular uncertainty surrounding Sweden's abolition of their national CO_2e displacement requirement from 2027 as it remains to be seen whether Sweden will introduce an alternative regulation for road transport and, if so, what that regulation would be. In general, there is uncertainty when making assumptions about regulation abroad.

CCS
Estimates for the effect of the CCS pool are subject to uncertainty. Uncertainties include costs and potential as well as the specific construction dates and the timing of the CCS value chain establishment and capacity adaptation. In addition, there is uncertainty concerning how the pool will be implemented and concerning the design of the specific terms of tender.

The NECCS pool was settled in April 2024 with a total capture from 2026 and runs over an 8-year funding period. The anticipated capture from the first tender has been adjusted downwards compared to previous estimates which is mainly due to the commissioning requirement from 2026. It is not expected that the carbon capture in future tenders is overestimated due to tender framework terms. The NECCS tender has an 8-year funding period and a short deadline from enrolment to carbon capture. The expectation for the upcoming tender of the CCS pool is maintained, partly because tender terms offer a longer 15-year contract period and later commissioning requirements from 2029.

Uncertainties about cyclical fluctuations and prices

Manufacturing industry and building and construction
Future growth in the manufacturing industry and the building and construction sector is subject to uncertainty, especially in individual years, partly because activity is sensitive to cyclical fluctuations. After the financial crisis, significant decreases in energy consumption, emissions and growth were observed in this sector. Any future cyclical fluctuations are expected to have a significant impact on sectoral emissions in individual years.

Production of oil, gas and renewable fuels
The long-term investment and maintenance of oil and gas extraction is largely driven by the price of crude oil which has historically fluctuated significantly due to changes in the international market. For refineries, the introduction of the carbon tax, see the *Agreement on the Green tax reform for industry etc.*, is estimated to result in a structural production decline of approx. 4 per cent in 2023, increasing to approx. 29 per cent in 2029 (cf. *chapter 24 Production of oil, gas and renewable fuels* in *Klimastatus og -fremskrivning 2024*). The structural effects for refineries may also reflect the likelihood of production closing at one or both refineries. The effect is recognised as a decrease in refinery activity, but the structural effects for refineries may reflect a probability of production closure. Emissions may therefore be higher or lower in case of continued production or closure, respectively, at one or both refineries.

2.6.17 Projections with additional measures (WAM-scenarios) and without measures (WOM-scenarios) [5.3]

In accordance with the reporting guidelines for Biennial Transparency Reports, it is also possible to include information on greenhouse gas projections where the expected effects of additional policies and measures, that are planned but still not adopted, are included (WAM-scenarios) as well as projection scenarios without the effect of policies and measures since an elected point in time (WOM-scenarios).

With the annual update of the WEM scenario projections in accordance with the Danish Climate Act, the window of opportunity for a full WAM projection scenario in Denmark is not existing. The critera for the additional measures to be included in a WAM scenario is that they are “planned options under discussion or announced and with a realistic chance of being adopted and implemented in the future by governments at the national, state, provincial, regional and local levels, as applicable”. The timeline from when a proposal for an additional measure is put forward to its adoption – maybe after some changes – is often very short. When an additional measure is adopted, the estimated effect of the measure will be included in the next annual WEM-scenario following the adoption of the measure. In between, calculations of emissions in selected future years using the estimated partial effects of newly adopted measures may be carried out for domestic purposes. However, these partial calculations are not WAM scenarios, but rather partial updated WEM estimates for selected years.

A WOM-scenario without effects of policies and measures adopted since 1990 was included in Denmark’s Seventh National Communication.

2.6.18 Methodology used for the presented greenhouse gas emission projections and comparisons with previous projections [5.5]

The methodologies used for the presented greenhouse gas emission projections are described briefly in section 5.1.2 and Annex C2. Further information is available in English in the CSO22 projection report[49] and the related documentation report[50].

In Annex C3, a comparison of the 2022 inventory submission with the "with measures" projections of Denmark's total greenhouse gas emissions included in Denmark's first to eighth national communication (NC1-NC8) is shown. As can been seen, no clear conclusion can be drawn from a plot of the "raw" projection data reported over the period 1995-2015. However, if the data are normalised to take into account the improvements made in inventory reporting over the same period, and if inter-annual variations in temperature and electricity trade, the latter being sensitive to inter-annual variations in precipitation in Norway and Sweden due to these countries' hydropower based production of electricity for the Nordic electricity market, is also taken into account, relatively good correlation between the projections until 2005 in NC1 (1994) and until 2010 in NC2 (1997) and the later actual development can be seen. A closer look into the detailed level of sectors and source categories, however, reveals major differences, but outliers in both directions seem to even out each other in the total due to the relatively high number of separately projected sub-categories.

The projections for 2009-2015 in the NC3 (2003), NC4 (2005) and NC5 (2009) show significant deviations from the 2009-2015 inventory data reported in April 2022. The projections for 2012-2015 in the NC6 (2014) are close to the actual inventory data for 2012-2015. This illustrates that projected estimates for years close to the present are more certain than estimates for years more that 3 years into the future.

As a "with measures" projection elaborated at a given point in time only includes the effects of implemented and adopted policies and measures, in many cases also with an end date within the projection period, emissions are projected to increase after the expiration of such policies and measures. The development in the projections shown in Annex C3 can therefore also be seen as an illustration of the main purpose of the WEM projections: to inform governments about future greenhouse gas emissions trends if no new policies and measures are adopted and implemented.

[49] https://ens.dk/en/our-services/projections-and-models/danish-climate-and-energy-outlook
[50] https://dce2.au.dk/pub/SR505.pdf

3 Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement

3.1 National circumstances, institutional arrangements and legal frameworks

3.1.1 National circumstances relevant to its adaptation actions, including biogeophysical characteristics, demographics, economy, infrastructure and information on adaptive capacity;

The climate is changing, and in all likelihood we will see more changes in the future. In the long term, the future climate is strongly dependent on the future emissions of greenhouse gasses and other substances that influence the climate. The development in greenhouse gas emissions is especially dependent on three factors: demographic development, the rate and spread of implementation of energy-efficient technologies, particularly in the energy and transportation sectors, and the socio-economic development in general.

The changing climate with rising temperatures, changing precipitation patterns, an increase in extreme weather events and rising sea levels will have a broad impact on ecosystems and society in general. Denmark is generally and has historically been a robust country in relation to climate-related incidents. This must, among other things, be seen in the context of geographical conditions, where, for example, Denmark, unlike several other European countries, does not have mountains or large rivers. Agricultural land is well-drained and many farmers are able to irrigate in dry periods. Moreover, the Danish population is aware of, and uses, systematic warning systems of extreme weather events and the consequences of such events.

Overall, Denmark has been able to handle the incidents that have occurred so far. This may be challenged in the longer term, however, if the necessary protective and preventive measures are not taken and/or if effects of climate change become more severe than assumed.

3.1.2 Institutional arrangements and governance, including for assessing impacts, addressing climate change at the sectoral level, decision-making, planning, coordination, addressing cross-cutting issues, adjusting priorities and activities, consultation, participation, implementation, data governance, monitoring and evaluation, and reporting;

Roles and responsibilities

All parts of society must contribute to climate change adaptation in Denmark. Dealing with the climate challenge requires collaboration between authorities, organisations, private enterprises and landowners, regardless of whether the project is maintenance of existing roads, coastal protection, construction, or investments in new infrastructure or materials.

Climate change adaptation is first and foremost based on initiatives at local level and involves municipalities, water utility companies and landowners. These stakeholders know the local conditions best, and are consequently in the best position to make decisions on adaptation. In Denmark, municipalities are the climate change adaptation authority.

Central government itself has a responsibility as the owner of infrastructure, buildings and land. However, the principle role for central government is to establish an appropriate framework for local climate change adaptation by, for example, adapting laws and regulations, but also by ensuring coordination and providing information and guidance for the municipalities. A solid framework for the efforts must support the specific parties involved, so that they can address the challenge in a socio-economically appropriate manner at the right time.

National and municipal adaptation strategies, plans and initiatives

In March 2008, the Danish government launched the first Danish strategy for adaptation to a changing climate. The strategy was followed by an action plan for a climate-proof Denmark[51], which was launched in December 2012. The action plan is based on the notion that a responsible climate policy must do more than just work towards limiting climate change in the long term. It must also ensure the action necessary right now to adapt our society to a climate that is already changing.
The action plan[52] presented 64 new initiatives and provided an overview of initiatives already set in motion by the government to ensure that Denmark will become resilient to climate change.
Central to climate change adaptation efforts is a strong interaction between central government authorities and municipalities. In 2012, the government and the municipalities agreed that the municipalities will increase investments in climate change adaptation and that all municipalities carry out a risk assessment and prepare municipal climate change adaptation plans.

From 2012-2014 the Minister of Environment established a task force with specific expertise on local issues as well as web-based mapping of risks of flooding, rainfall and storm surge as a sounding board for the municipalities with regards to their preparation of municipal climate change adaptation plans. All 98 Danish municipalities finalised their action plans by 2014. The objective of this task force was also to ensure up-to-date data and relevant knowledge on the Danish Portal for Climate Change Adaptation www.klimatilpasning.dk.

From 2017-2020 a mobile task force was established, comprised of adaptation, flooding and erosion experts from the Danish Coastal Authority and the Danish Environmental Protection Agency. The goal was to meet needs for guidance on holistic climate change adaptation solutions, with particular focus on flooding and erosion. Annual workshops, seminars and thematic meetings with groups of municipalities, utilities, emergency management groups and other relevant stakeholders were held throughout the country, based on concrete and commonly expressed needs, fostering knowledge exchange and gain.

All 98 Danish municipalities are part of the DK2020-network that was founded in 2019. In the DK2020-cooperative network, the Danish municipalities take inspiration from C40 initiatives and develop climate action plans that are compatible with the Paris agreement. Copenhagen Municipality is not a part of DK2020, as the capital is a member of C40 and already has adapted a Paris-compatible climate action plan.

The Danish municipalities involved in the DK2020-network, receive technical support and share knowledge in their development of climate actions plans that live up to the Climate Action Planning Framework defined by C40. The climate action plans focus on all sectors within each municipality's geographical area and define how each municipality plans to obtain climate neutrality and robustness by 2050.

The plans must include descriptions of preparing citizens for the consequences of climate change, for example how to minimise flood-risk. All DK2020-plans are to be finalized by 2023. DK2020 is developed as a cooperative initiative by a Danish philanthropic association (Realdania), the national association of municipalities (KL) and the five regional authorities. CONCITO, the Danish green think-tank, holds the secretariat role and is a knowledge partner along with the C40 cities.

National Climate Adaptation Plan 1

Danish National Climate Adaptation Plan 1[53] was launched in autumn 2023. Denmark is a flat country with a long coastline and many islands, which makes Denmark particularly vulnerable to coastal flooding and high groundwater levels. Denmark has therefore prioritised following actions:

- Technical and financial support to particularly vulnerable coastal areas
- Beach nourishment and maintenance of coastal infrastructure along the west coast
- Governance and structural solutions to strengthen municipal coastal protection
- Governance and structural solutions to issues with high groundwater levels in cities
- A cross-ministerial task force
- Analyses of costs and investment needs
- Focus on development of climate change adaptation in harmony with nature and environment, including an in-depth look at regulatory challenges

[51] http://en.klimatilpasning.dk/media/590075/action_plan.pdf
[52] http://en.klimatilpasning.dk/media/590075/action_plan.pdf
[53] https://edit.mst.dk/media/bd1ho52f/faktaark-1.pdf

National digitalisation strategy – Water from all sides

As part of a national digitalisation strategy from 2022-2025, the Danish Ministry of Environment has received funding to ensure better digital support of climate change adaptation action; the initiative is known as "Water from all sides".

The funding is applied to projects that more accurately pinpoint risks and vulnerability, prioritise measures and document effects of climate change adaptation action. The projects will further develop existing data and models (many of which are mentioned in the following subsections), in order to increase the quality and applicability of tools and services made available for municipalities, enterprises and citizens.

Improved risk and vulnerability mapping will support prioritisation of socio-economically optimal climate change adaptation actions. The projects also aim to facilitate standardisation and collection of data across multi-stakeholder levels, helping to make data more publically available.

3.1.3 Legal and policy frameworks and regulations.

Climate change adaptation is incorporated in to current policy and regulation in Denmark. Concrete actions have been taking in updating relevant regulation, providing better guidance for municipalities and stakeholders, improving flood warning systems, implementing national support schemes and developing collaborative partnerships.

Denmark implements in the EU Floods Directive and the EU Water Framework Directive in national legislation: the Danish Flood Risk Act (LBK nr 72 of 18/01/2024 & BEK nr 894 of 21/6/2016), allowing for identification of flood risks and improving preparedness for future flood events and for flood risk management; and the Danish Law on River Basin Management Planning (LBK nr. 126 of 26/01/2017) that aims to protect and conserve all watercourses, lakes, transitional waters, coastal waters and groundwater, in turn providing robust ecosystems better equipped to handle impacts from flooding and drought.

Amendments have been made to relevant regulation and new regulations have been implemented. Amendments have been made to the Planning Act and Coastal Protection Act, new regulation has been developed to define service levels for wastewater utilities' investments in adaptation and new regulation on high groundwater level is currently under development. This is covered in more detail in III. D. f).

3.2 IMPACTS, RISKS AND VULNERABILITIES, AS APPROPRIATE

3.2.1 Current trends and hazards

3.2.1.1 Current trends

Since the Ice Age, Denmark has had a temperate maritime climate. This climate, with wet winters and cool summers, is now changing. The latest statistics[54] from the Danish Meteorological Institute (DMI) show that the mean temperature is now around 8.7°C (1991-2020), an increase of about 1.5°C since the end of the 19th century. This increase is about double the increase of the global mean temperature for the same period. Today the average winter temperature in Denmark is around 2.0ºC, and the average summer temperature is around 16.1ºC.

The annual precipitation measured in Denmark is now around 759.1 mm (1991-2020). Precipitation has increased by about 20% – or 125 mm – since the first recordings began in 1874. Precipitation is highest in the western and southern part of Jutland, with around 1000 mm annual precipitation, and least precipitation is measured in the eastern parts of Denmark (Zealand and the other eastern islands), where about 600 mm of precipitation is recorded annually.

The Danish climate has become warmer and wetter in the 20th century. With rising temperature, more precipitation has come and there are fewer days with snow cover. The direct consequences, such as shorter winters, decreased need for ice-breaking, earlier pollen season, longer growing season and longer swimming season, is already felt by the Danish population.

[54] https://www.dmi.dk/vejrarkiv/normaler-danmark/

The sea level around Denmark has risen over the past 115 years. The maximum observed rise is in southern Denmark, where the water level is rising by about 1.5 mm per year. In the northern-most part of Denmark uplift of the land after the Ice Age is roughly in line with the rise in sea level.

3.2.1.2 Projected trends and hazards

DMI works with both global, regional and local climate model projections. To assess the expected future climate change in Denmark, DMI combines knowledge from both international modelling collaborations with both high-resolution projections over Denmark and observational data. Generally, the analyses are based on the emission used by the Intergovernmental Panel on Climate Change (IPCC), and focus on the projected changes towards the end of this century.

The current estimates of the future Danish climate are presented in the Climate Atlas (www.klimaatlas.dk, see https://www.dmi.dk/klima-atlas/introduction-to-klimaatlas for an English description) hosted at DMI where observations and climate simulations are being combined to provide detailed future projections of expected changes across Denmark. The projections of future climate change are based on an ensemble of climate models, making the estimates more robust and allowing assessments of uncertainties. For specific planning, assessment and risk analysis aimed at climate adaptation, it is important to consider the full range estimate as indicated by the uncertainty interval in the Climate Atlas, instead of simply considering the best estimate. The Climate Atlas is kept up-to-date with the newest data and knowledge from both the IPCC, DMI's own research, as well as new simulations and knowledge from national and international climate research.

A key challenge in Denmark, with low elevation and long coastlines, is the ongoing and future sea level rise. Sea level rise is a consequence of melting of snow and ice on land and ocean warming. In Denmark, increased melt from the Antarctic Ice Sheet and the thermal expansion of the warming ocean are the two main contributions to future sea level rise. The magnitude of the future change is, however, dependent on the level of greenhouse gas emissions and furthermore uncertain due to potentially larger loss of ice from especially Antarctica than currently expected. Global sea level change, corrected for regional effects and land rise, is presented along with specific statistics on storm surges to illustrate together with scenarios of future sea level rise in the Climate Atlas.

Below, an overview of projected changes for the climate in Denmark is presented. Changes are in relation to the reference period 1981-2010, and based on a medium emission scenario (RCP4.5 or SSP2-4.5) unless otherwise stated.

- Temperature: The future projection is highly dependent on emissions scenario. By the end of the century (2071-2100) the expected temperature increase in Denmark, is 2.0 °C. The change is uniform over both summer and winter seasons.

- Precipitation: For Denmark, global warming drives an increase in annual precipitation as well as increasing precipitation extremes. Towards 2100, annual precipitation is expected to increase about 7%, covering an almost unchanged amount of precipitation during summer and an increase of 12% during winter. Summer precipitation is expected to increase in Northern Scandinavia and decrease in Central and Southern Europe, and Denmark will likely be on the border between these two zones, making predictions of future overall summer precipitation in Denmark rather uncertain. But even with an unchanged total precipitation amount, the summer precipitation will be characterized by more heavy precipitation events, e.g. an increased risk of cloud burst events (see Table 3.2(1)).

- Wind: Mean wind over land is not expected to change significantly towards the end of the century in Denmark, but the dominant wind direction is more likely to be from west.

- Sea level: The sea level is currently rising along all Danish coastlines, except in the northernmost Jutland, where uplift since the last glacial counters the sea level rise. Further sea level rise is expected in the future due to climate change, regardless of the future greenhouse gas emissions. In the northern part of Denmark, the future sea level rise will also be partly compensated by land uplift. For the period 2071-2100, the sea level around Denmark is expected to increase on average 46 cm. This change of the mean sea level causes a current 20-year storm surge event to instead occur every second year on average.

- Extreme events and other climate parameters: Warming, driven by an increased greenhouse effect, generally results in increased frequency, intensity and duration of extreme weather events. Denmark will experience an increase in the frequency, duration of heat waves, and increased fire weather risk. Summers will be characterised by longer dry spells and an increase

in heavy precipitation events. The occurrence of frost days with sub-zero temperatures will decrease dramatically, while the length of the growing season will similarly increase.

Table 3.2(1) Future changes in precipitation for Denmark 2071-2100 relative to 1981-2010

Precipitation change [%]	RCP4.5	RCP8.5
Winter	12 (2-27)	22 (8-40)
Summer	3 (-12-27)	-3 (-20-21)
Number of Cloud Bursts	40 (-31-131)	65 (-7-164)

3.2.2 Observed and potential impacts of climate change, including sectoral, economic, social and/or environmental vulnerabilities

A review of the significance of climate change up to 2050 for individual sectors and industries shows that Danish society will experience both positive and negative impacts. There are some positive impacts related to higher temperature, including a longer growing season, increased productivity within the forestry and agricultural sectors and a longer tourist season. Milder winters will moreover reduce energy consumption and construction costs, as well as the costs of winter-weather preparedness. The negative impacts of climate change relate primarily to an increased risk of flooding from more frequent extreme rainfall (especially during the summer) and persistent rainfall (especially during winter). Coastal flooding risk is increased due to elevated sea level, which also increases the severity of storm surges. Increasing temperature and changed precipitation patterns, result in increased risk of droughts, heat waves, and unprecedented extreme temperatures. Together, these factors can all have adverse consequences for livelihoods, health, the environment, the economy, property, infrastructure and vital societal functions, depending on the level of adaptation to climate change.

Rescue and fire services' response to climate-related incidents have been registered in the Danish Emergency Management Agency's system (ODIN) since 2007. These data can contribute to potential future analyses regarding the frequency and nature of climate incidents seen from a preparedness perspective.

In the following sections, the impacts on individual sectors and industries are further described.

Construction and housing

Climate change will have both positive and negative impacts on buildings.

More extreme rainfall events will lead to more flooding:
The most important challenge will probably come from increased precipitation. Heavy rainfall may lead to more basements being flooded by intruding rainwater and sewage water. Houses and buildings with entrances at terrain level may also be exposed. A gradually rising sea level and more frequent storm-surge events, in combination with heavy precipitation, may put low-lying and coastal urban areas at risk, see the section on water. Changes in ground water level may affect a building's foundation (e.g. moisture damage) and stability due to fluctuations in moisture and compaction.

In order to counteract the effects of increased precipitation, measures such as changes to terrain surrounding a given building or perimeter drains, can be implemented. These fall under the responsibility of the building owner.

Greater air humidity and less frequent sub-zero temperatures are significant for the wear on buildings:
The lifespan of a building part is (among other things) governed by the twin influences of damage from water, which may cause rot and oxidation, and damage from freezing, where the expansion of water as a result of phaseshift causes mechanical damage. Milder and more humid winters may reduce the life span of individual building components. This can be mitigated through greater focus on management and maintenance. However, less frequent sub-zero temperatures may help reduce the wear and tear on buildings.

More powerful storms and changes in snowfall may damage buildings:
Powerful storms may pose a risk of damage to buildings, including damage to roof constructions from storms and greater snow load. There may be a need for increased information, maintenance and in

some situations, reinforcement of buildings. Data on storm damage from insurance statistics[55] show that from 2006 to 2021 in Denmark, storm damage on buildings and property was significantly higher in 2013; up to six times higher than in 2014.

Less demand for heating during winter, but risk of poorer indoor climate:
Milder winters reduce demand for heating. However, more humid winters may result in a more humid indoor climate providing better conditions for house dust mites and increasing the risk of mould, see the section on human health. A more humid climate may also result in greater demand for maintenance of building envelopes. However, due to greater fluctuations in temperature the need for heating in winter may at times be high. Heating will need to be dimensioned for cold periods rather than the average; the responsibility of which is falls on the building owner.

Greater risk of overheating:
Large window sections facing south, and longer periods with warm weather in the summertime may pose a risk of overheating in buildings, which will have to be addressed when designing highly insulated buildings. The problem has already been addressed in the building regulations requirements on maximum indoor temperature. Furthermore, a voluntary data file containing 2 prognosis for weather data based on the IEA EBC Annex 80 Resilient Cooling of Buildings CORDEX project has been made publicly available for use in construction planning. The building owner may have to find ways to reduce overheating, e.g. through external shading systems or mechanical cooling.

Changes in productivity in the construction industry:
A more humid climate, in particular during winter, may mean longer drying times and may pose the risk of damage to building materials, all of which may affect parts of the construction industry. However, the industry can prepare for this by using and further developing methods and materials that reduce the significance of the climate during the construction phase. Climate change could also result in fewer bad-weather days due to milder winters (fewer days with sub-zero temperatures). This will help enhance productivity in the industry.

Coasts and ports

Based on future projections of climate change, key consequences for Danish coasts and ports will include:

Sea level rise increases erosion and coastal recession:
Sea level rise, resulting in higher storm-surge water levels and more wave impact, will increase erosion and coastal recession. Coastal erosion will be most pronounced for the west coast of Jutland where dune breach and flooding would affect 10,000 properties valued at approximately 13.6 billion DKK. However, other Danish coasts will also suffer coastal erosion in the future. The loss of land due to permanent flooding is estimated at 878 km^2, which corresponds to 2.04 % of the land size of Denmark.

More frequent flooding of low-lying coastal areas:
Low-lying land not protected by dykes, e.g. in the Limfjord, will be exposed to more frequent flooding. At the same time, the risk of dyke breaching due to higher water levels and wave impact will increase. Urban developments at the mouth of rivers, e.g. in fjords, may come under double pressure: from rising sea levels as well as from increased precipitation and run-off from the catchment area. Overall, the flood risk in coastal areas will increase significantly due to higher and more frequent storm-surge water levels.

More powerful storm surges will make activity at ports more difficult:
With more powerful storm surges, harbour areas, e.g. in Esbjerg, will be flooded more frequently, thus interrupting port activities and posing a greater risk of damage to buildings. The same applies to ferry landings. More intense storms will also pose a greater risk of ships breaking their moorings and causing damage to cranes and other equipment at the port.
The port protection that protects the basin itself will be affected to an increasing extent by the wave impact, and protection will be less effective during high storm surges. Costs for repair and maintenance of port infrastructure will increase in the future. In ports where fairways and/or port basins are dredged, the need for dredging will often grow, as higher waves leads to increased sanding.

[55] F&P Stormskader, Udviklingen i antallet og erstatninger for stormskader.

Road network

Higher temperatures reduce construction costs:
Higher temperatures during winter will mean that periods with heavy frost will be shorter or will all together disappear. This will provide the opportunity to reduce frost protection and the thickness of the bottom-most layers of roadbeds, thus reducing needs for raw materials.

Higher temperatures reduce the need for winter-weather preparedness and salt application:
Higher temperatures allow for possible savings on winter-weather preparedness and road salt; this may lead to both financial and environmental benefits. Data on consumption of road salt for the state road network[56], shows a reduction in consumption over the last nine years (see Table 3.2(2) below). The trend indicates milder winters.

Table 3.2(2) Consumption of road salt for the state road network in Denmark 2012-2021

	Consumption of road salt for the state road network	
Year	Tons total	Kg/m2
2021	39,322	1.00
2020	15,381	0.39
2019	27,328	0.66
2018	52,412	1.26
2017	49,519	1.20
2016	51,113	1.27
2015	42,833	1.10
2014	41,392	1.06
2013	67,352	1.67
2012	61,352	1.53

Temperature increases can have both positive and negative impacts on the roadbed:
Temperature fluctuations around 0 degrees, causing many frost-thaw-cycles, are destructive to the surface of asphalt pavements. Water that penetrates into the small cracks that appear over the years, expands at sub-zero temperatures, causing further cracking. Warmer winters are expected as a consequence of climate change, leading to fewer frost-thaw cycles and reduced cracking.

On the other hand, higher temperatures on summer days may result in asphalt softening, increasing risk of rutting and requiring further maintenance. Furthermore, an increase in rut-formation may lead to higher risks of hydroplaning. This will further increase in risk due to a higher frequency of heavy or extreme rainfall occurrences as a result of climate change.

For the underlying gravel and sand layers of the roadbed, the increases in temperature will have a limited but positive effect on the life span.

Increasing water volume challenges the road network:
Increased precipitation and rising groundwater level, leading to more flooding events, may negatively affect traffic safety and passability. This will place greater demand on road drainage systems and monitoring of the road network. Flooding not only reduces the carrying capacity of roads, it also shortens life span. Similarly, increased precipitation may cause road banks to become unstable, thereby leading to the risk of landslides.

Increasing water volume will challenge bridge design:
For bridges and tunnels, there is a greater risk of reduced carrying capacity of foundations, supporting walls and sheet piles due to higher groundwater levels, regardless of whether this is due to higher sea level or increased rainfall. Particularly construction founded on sand may be affected.

More frequent storms will pose a challenge for road sign portals:
More powerful storms will expose road sign portals to greater force.

[56] Consumption of road salt for state road network

Fixed links

Rising sea level and precipitation may affect Danish fixed links:
For the fixed links cross the Great Belt and the Sound, an increase in precipitation will enhance pumping requirements from drainage systems in tunnels, railways and roads on the fixed links. Rising sea levels in combination with more powerful storms may enhance the risk of flooding of tunnels, railways and roads on the fixed links and lead to longer periods of interruption. More powerful storms may also mean that bridges will have to more frequently, be shut down temporarily. Current work on protecting the Øresund Bridge will be completed in 2025, with projects aiming to protect the tunnel part of the bridge to withstand a 10,000-year storm surge projected up to 2050[57].

Rail network

More water will enhance the risk of flooding and landslides:
Flooding events and rises in groundwater level will enhance the risk of landslides and embankment failures. A rise in the mean sea level could pose a problem for rail services where embankment and slope drainage systems divert the water into nearby watercourses that are affected by the rise in sea level. Insufficient drainage can thus result in rail sections, tunnels and electrical equipment being flooded or otherwise damaged.

More powerful storms could lead to interrupted transportation:
On electrified railway lines, powerful storms and greater wind speeds may lead to greater frequency of breakdowns of overhead wires and to more incidents with trees falling across the tracks. This may result in interrupted train services with consequences for traffic and for the economy.

Higher temperature may disrupt timetables:
Higher temperature can affect the track and may introduce a need for adapting maintenance standards. Timetables and transport capacity may be challenged.

Water

Increased precipitation will put further pressure on the sewage system:
Increased frequency of extreme precipitation can result in greater risk of overflow events and subsequent flooding of terrain, buildings and basements, which in turn, poses a risk to human health due to human contact with non-treated wastewater. More overflow events will also lead to greater strain from pollution on vulnerable aquatic areas. Furthermore, increases in sea level will deteriorate the drainage capacity of drains close to the coast, resulting in reduced water flow in the sewerage system, potentially leading to local flooding events.

More precipitation means higher annual groundwater recharge:
The increase in annual precipitation will increase groundwater recharge, in turn increasing the groundwater resource available for water recovery. However, seasonal variations mean that this will primarily be in the winter and there are regional variations between east and west Denmark. Increased groundwater recharge in the upper strata could lead to more local flooding problems, which was observed in February 2020 and 2022 and in October 2023 – January 2024. A need for alternative drainage systems may occur as a result of increased seepage to groundwater bodies, as mentioned in earlier sections.

Long periods of drought may bring water supply under pressure:
Ever longer periods of drought are expected in spring and summer, which in addition to increased evaporation and resulting reduced infiltration, will put more pressure on the water supply, especially in areas that are already affected by groundwater extraction for larger cities and irrigation. Therefore, in exposed areas it is likely that groundwater extraction will be adjusted to maintain water flow in watercourses and consumers may observe increased competition for the resource.

Higher temperatures increase bacterial content in drinking water:
Higher temperatures may mean a slightly higher content of bacteria and amoeba in drinking water compared with current levels. Today, some waterworks find it challenging to comply with the recommended requirements for the temperature of drinking water; max. 12°C at the tap.

Higher sea levels may add saltwater to the groundwater:
Higher sea levels will move the current freshwater boundaries further inland. Locally, this could cause

[57] Read more on this adaptation case study here.

problems with saltwater infiltration into coastal extraction wells and create a need for new wells. The problem is especially serious for smaller Danish islands.

Agriculture

Longer growing season as a result of changing temperature and rainfall patterns:
Plant production will primarily be affected by the increased length of the growing season, changing temperature and rainfall patterns. Crop production will also be affected by the interaction between soil quality, water supply and plant protection.

Longer growing seasons will be favorable for some crops and might change the cropping pattern:
Crops such as grass, sugar beets and maize will benefit from increases in temperature. Maize and wine grapes are the primary crops that have gained popularity due to climate change, although the area with wine grapes is still insignificant. The effect of longer growing seasons will vary depending on rainfall and temperature during the growing season.

More CO_2 impacts plant growth:
Increases to atmospheric CO_2 can increase plant growth for the majority of Danish species. This can lead to higher crops yields, but also increased weed growth. Higher CO_2 concentration will reduce evaporation from plants and thus lower the need for watering, if rainfall patterns are unchanged.

The main issues for soil quality in Denmark relate to soil organic matter, soil compaction and erosion:
Generally, soil organic matter content has been decreasing in clay soils and stagnating on sandy soils over the past four decades. Rising temperatures and extended growing season will increase the carbon influx to the soil – this will be counteracted by the increase in carbon turnover, but the overall effects are unknown. An overall carbon loss on Danish soils will lead to poorer soil structure and stability and higher risk of erosion and compaction.

The risk of soil compaction by heavy machinery will increase with increasing rainfall during the winter period. Soil compaction can lead to poorer drainage, increased nitrous oxide emissions, inhibited root and thereby plant development, erosion and difficulties establishing crops.

Erosion will increase as a result of increased precipitation and increased frequency of extreme rainfall events. Soil compaction and loss of soil organic matter may also increase erosion.

Climate change is expected to lead to increasing problems with plant diseases, pests and weeds:
Higher temperatures could result in more plant diseases and pests. It is very hard to give a clear-cut description of the developments in plant diseases, but the overall assessment is that higher temperatures in the future will be more favorable for a number of plant diseases and pests, which therefore will become more widespread. This will potentially increase the need for use of pesticides, in lack of viable alternatives.

Some weed species will benefit from a warmer climate, e.g. cockspur and green bristle grass, both of which are relatively new species in Denmark. These species are considered some of the most aggressive globally, but so far they have not been a serious problem in Denmark.

Higher overall yields for agriculture may give more nitrogen and phosphorus run-off:
Higher temperatures and winter precipitation will increase the risk of nitrogen and phosphorus leaching and especially run-off into the aquatic environment. The risk of increased leaching is linked to crop and catch crop establishment and growth.

Increased winter precipitation and increasing water levels mean poorer agricultural exploitation:
Increased winter precipitation and rising water levels in some areas will lead to flooding or to groundwater levels that are so high, that cultivation security will be difficult to maintain. This may be particularly relevant along a number of fjords and watercourses, but there may also be problems for other poorly drained areas. This could also have a negative effect for production of winter crops, such as grasses, cereals and rape seed.

Longer periods of drought increases the need for irrigation:
Longer periods of drought during the summer results in a greater need to water crops artificially, especially on sandy soil. Higher temperatures also increase evaporation, but much of this effect is countered by reduced transpiration due to higher concentrations of CO_2 in the atmosphere. Changing crop types to more maize will also increase the need for irrigation. More irrigation may have an effect on summer flows in water courses. It is not yet accounted for whether increased irrigation in summer months will affect available water resources, or if it will be offset by the increase in winter precipitation.

Rising temperatures change conditions for exotic diseases in animals:
Rising temperatures could change conditions for the incidence of animal diseases that are currently regarded as 'exotic' in Denmark. Vector-borne diseases are an example of this, as small changes in temperatures and humidity can enable ticks and mosquitoes to establish themselves in new locations. The vector-borne disease known as blue-tongue was considered an exotic disease some years ago. In just a few years it has spread to most EU countries with consequent comprehensive vaccination programmes.

Rising temperatures can lead to lower animal welfare and as a consequence, lower production:
The main climate induced threat to animal welfare is heat stress, which is relevant for both free-range animals and livestock in stables. Higher temperatures and increased precipitation can increase the occurrence of diseases, infections, parasites and insects.

Forestry

Rising temperatures mean longer growing seasons and larger biomass production:
Higher temperatures and higher CO_2 content in the atmosphere may cause greater plant growth and thus greater inland biomass production. Because of the warmer climate, the growing season for trees will also be lengthened.

Increased storm intensity affects wood production and biodiversity:
Increased storm intensity, as well as increased storm risk, may lead to more trees being blown down (especially conifers, which comprise about one-half of the Danish forest area) and more frequent forest storm damage. This can affect wood production and cause a loss in biodiversity in forests, if forest storm damage occurs in large, cohesive areas.

Drought stress and storms affect forest trees:
Forest trees are vulnerable to climate change (drought stress and storms). This also increases their vulnerability to harmful diseases and pests. Pests and diseases can attack trees more easily, weakening the wood and rotting or drying it out.

Higher summer temperatures increase the risk of more forest fires:
As a result of the warmer climate, there is a risk of more forest fires, which are already widespread in southern Europe.

Rising temperatures change the species composition of forests:
Tree species have different ways of dealing with climate change. Norway spruce, which covers about 13% of Danish forest land, is threatened by temperature increases as the species cannot cope very well with mild winters and summer droughts (other, non-indigenous conifer species such as Sitka spruce will cope with increases in temperature better). In contrast, deciduous forests will have better conditions as a result of rising temperatures.

Fisheries

Rising sea temperature can have huge impacts on the condition and composition of fish stocks:
Fish are generally adapted to a certain temperature interval. Rising temperatures, as well as other climate-related changes, can affect species composition throughout the marine ecosystem and thus change food-chains. It is currently unclear whether these changes will make fish populations and ecosystems more or less vulnerable to anthropogenic impacts on the ecosystem, such as overfishing and eutrophication, and therefore how the fisheries sector will be affected.

Fish stock composition in Danish waters is expected to change, thereby impacting the fishing resource base. Stocks that have their southern limit in Danish waters can be affected negatively, while stocks preferring higher temperatures will generally be affected positively. Therefore it is likely that there will be an increase in species preferring warmer waters (e.g. sardine and tuna) and species preferring colder waters will retreat (e.g. cod).

Rising sea temperatures and increased precipitation may cause oxygen depletion:
Rising sea temperatures, for example in the Baltic Sea and in coastal areas, along with increased precipitation and run-off from watercourses resulting in increased nutrient loading and potential for oxygen depletion (hypoxia), may result in poorer living conditions for fish, with derived consequences for fisheries.

Rising sea temperatures encourage disease-promoting bacteria:
Rising sea temperatures can underpin the incidence of new disease-promoting bacteria and toxic algae, which can threaten fish and shellfish stocks as well as food safety.

Rising sea temperatures can affect production conditions:
Rising sea temperatures may accelerate the occurrence of populations of invasive species, which may lead to significant changes in ecosystems. This in turn can affect production conditions and therefore fisheries for a number of fish and shellfish species. Similarly, trout production (aquaculture) is very sensitive to increases in temperature, and marine rainbow trout farming may be threatened.

Rising sea temperatures enable alternative fish farming methods:
Increases in winter temperatures in particular can in time maybe enable the application of alternative fish farming methods.

Increases in precipitation and run-off from watercourses lead to a drop in salt concentration in the Danish Belts and in the Baltic Sea:
Populations of a number of important fish species in Danish coastal waters are demonstrating local adaptation to the existing salt gradient from the Baltic Sea out to the North Sea. Changes in salt concentration may mean changes in the geographical and temporal distribution of the fisheries resources. However, a Danish study of climate effects on river-basin management planning, showed that there has been little change in coastal salinity over the past 100 years.

Strong winds and precipitation affect the development of marine aquaculture:
More frequent weather events with strong winds and precipitation may impact the possibilities to develop marine aquaculture and may periodically obstruct shellfish harvests in coastal areas because of discharges of untreated wastewater and consequential problems for food safety.

Acidification impacts production of a number of organisms:
Acidification as a result of increasing carbon concentration can affect the production of a number of organisms, including fish and shellfish, because of reduced calcium formation.

Cumulative effects of climate change:
There may be cumulative effects from climate change in relation to other anthropogenic impacts. This means that even though the impact of climate change in relation to an organism or ecosystem may be small, the impact may become significant because of other pressures such as increased eutrophication.

Energy

Milder winters mean less energy consumption:
With higher average temperature and milder winters, energy needs in the winter will drop. The difference in energy consumption between mild and cold winters is about 20%. However, warmer summers will also mean more needs for cooling, but the effect of this is expected to be less than the effect of milder winters.

Weather extremes may affect energy-producing facilities:
More extreme weather with more powerful storms may lead to a need to secure installations against changing weather conditions. The effects are limited however, as wind turbines have been secured against high wind speeds and the vulnerable electricity supply grid is more or less be buried underground. In high winds, wind turbines are cut off which means electricity production will cease.

More wind gives more output from wind turbines:
With stronger winds there is a potential for better exploitation of wind turbines for greater electricity generation. The expected increase in average speeds of 1-2% however, will only lead to limited additional production with no significant effect on the economy.

Changed import/export patterns give lower electricity prices:
Changed precipitation patterns in Sweden and Norway will mean production of more hydropower. Higher temperatures in Norway and Sweden will also reduce electricity consumption for heating in these countries. Both these factors may reduce electricity prices in Denmark.

Possibility for more biomass production:
Higher temperatures and higher CO_2 content in the atmosphere may cause greater plant growth and thus greater domestic biomass production. Biomass production can be incorporated in electricity and heating supply and can replace fossil fuels as well as increase security of supply.

Tourism

Rising temperatures and more frequent extreme weather events can make Denmark a more attractive destination for a larger part of the year:
With a warmer climate, Denmark may become an even more attractive tourist destination during the

year, as the season is extended. Moreover, popular tourist destinations in the Mediterranean such as Spain, Greece and Turkey may attract less tourists due to rising temperatures, heat waves etc. Especially tourists from the north-western part of Europe are likely to seek alternative holiday destinations in the temperate zone.[58] With its wide beaches and moderate temperatures, Denmark is one of the northern European countries with the best conditions to meet the future tourism demand.[59]

Higher sea level can make holiday areas along the coast less attractive:
In the medium term, sea-level rise is likely to make a number of current holiday areas, including holiday centers, holiday homes and camp sites along the coast, inaccessible or less attractive. Holiday homes placed in lowlands near the coast are often without connection to public sewerage systems and are particularly at risk of flooding, mainly in the autumn and winter season. Contrarily, changes in the coastal regions of Denmark, may also create new attractive areas that can be developed for sustainable all-year-round tourism.

More extreme weather events may increase investment in climate protection:
More extreme weather events expected in the future summer seasons will affect many of the outdoor activities and attractions that tourists demand. This means that large amusement parks such as Tivoli, Dyrehavsbakken and Djurs Sommerland must adapt their business strategies, products and services in relation to climate change, e.g. by investning in facilities to manage more excessive precipitation and larger storms.

Many Danish cities, especially those that are highly dependent on tourism, are increasingly investing in climate protection measures. As this becomes increasingly necessary, it is important to exploit the potential of investing in multifunctional climate adaptation solutions that can also be used for recreational purposes. E.g., when creating new natural areas as part of a climate withdrawal strategy, dikes can also be used for hiking or piers and sea locks can be used as viewpoints.

Aquatic environment

Changes in rainfall patterns alters flow:
Increased precipitation enhances flow in watercourses, resulting in increased groundwater levels and risk of flooding along watercourses, lakes and coastal areas. Contrarily, longer periods of drought are expected to dry out watercourses. These changes are expected to impact biodiversity in aquatic ecosystems. For example, increased flow is expected to have a positive impact, whereas increased frequency of periods with extreme flow, will have a negative impact because the ecosystem cannot adapt to extreme, rapid change.

More frequent extreme rainfall affects erosion and sedimentation processes:
The frequency and size of the extreme runoffs are expected to affect erosion and sedimentation processes in watercourses. An increased supply of sand, silt and humus particles from cultivated fields can bury parts of gravel in the watercourses and thus lead to habitat deterioration for fish and insects.

The expected increased runoff may increase the leaching of nutrients, pesticides and other environmentally hazardous pollutants and thereby affect the composition of the biological communities in the watercourses. In combination with rising temperatures, this will result in greater algae growth, poorer light conditions, more oxygen depletion and possibly consequential fish death in aquatic environments.

Warmer climate can change species composition:
All aquatic organisms have an optimum temperature range, and therefore their fitness and the biological structure of the aquatic environment, is affected by changing temperature. Changes have been observed in the past decades, where warm water fish species, such as thick-lipped mullet, anchovies and European seabass, have become more common in Danish waters. In eastern Denmark, cyanobacteria, that tend to thrive at high temperatures, have become more abundant in inner Danish waters. Furthermore, a modelling study analyzing the effects of climate change from approx. year 1900 until now, suggests that climate change and especially increasing temperature, may lead to deeper angiosperm depth distribution and reduced chlorophyll concentrations in Danish coastal marine areas.

Warmer climate leads to increased substance conversion:
Biological processes such as microbial processes that facilitate the turn-over of organic matter and nutrients are temperature dependent. A higher temperature will lead to a faster turn-over of

[58] http://en.klimatilpasning.dk/media/600858/130206_mapping_climate_change_final.pdf
[59] https://climate-adapt.eea.europa.eu/

substances.

Increased atmospheric CO_2 can cause acidification of the sea:
The content of CO_2 in water is in a chemical balance with the content in the air. When the content of CO_2 in the air increases, so does the content in water and this causes acidification of the water with potentially large impacts on aquatic ecosystems.

Storage of carbon dioxide:
Climate change affects the distribution of zooplankton in the sea and thus affects planktons' contribution to remove CO_2 from the atmosphere. In the central and eastern part of the North Atlantic today, there are areas with fewer or smaller copepods than earlier, and these changes in biomass have an impact on how much carbon can be transported from the atmosphere to the sea, along with the efficiency of carbon sequestration to sediments.

Nature and landscapes

Higher temperatures and increases in the air's content of CO_2 will enhance biomass production:
Rising temperatures provide for a longer growing season. At the same time, increased contents of CO_2 in the atmosphere lead to more favorable growth conditions. In combination, these factors provide for enhanced biomass production in Danish nature.

Higher storm-surge water levels will probably lead to the loss of habitats along the coasts:
As the sea level rises as a result of climate change, more than half of the current salt marshes will be permanently flooded. The beach meadows and other coastal habitats are habitats for birds, amphibians and plants. More species are therefore in risk of disappearing from Denmark during the next 50-100 years.[60]

Higher sea level and more powerful storms may cause coastal erosion and recession, impacting Danish coastal habitats and reducing available space for habitats such as salt marshes, with consequential negative impacts on their biodiversity. These problems, however, will be limited up until 2050.

More frequent and more intense rainfall will lead to more flooding of low-lying land areas:
More frequent flooding events of low lying areas, such as the most valuable fresh meadows, may come under further pressure. Added pressures from the lack of opportunity to spread to other habitats and not enough time to adapt to new conditions, are expected.

A warmer climate will alter the species composition:
More non-native species will be able to exploit a warmer climate to expand their natural habitat to include Denmark, affecting the existing ecosystem and very likely supplanting current species.

Health

The greatest health-related impacts are expected to increase with changing climate. Some consequences can be linked to extreme weather events such as heatwaves or flooding.

Dehydration and heat stroke during heatwaves:
Heat waves can lead to dehydration and heat stroke, which in their extremity, can be life threatening. People in the northern parts of the world are less used to coping with high temperatures than people who live further south. Particularly vulnerable are the elderly who live alone, young children who do not remember to drink themselves, people with dementia or with mental illness and people whose illness or medication makes it difficult for them to feel thirsty and sweat.

Positive as well as negative impacts of staying outdoors:
The human body creates Vitamin D after only short exposure to the sun, however too much sun exposure can cause skin cancer and malignant melanoma . Spending more time outdoors can have positive effects, e.g. in the form of more outdoor physical activity, fewer problems with indoor climate and less disease transmission in kindergartens etc. However, it may also cause more symptoms in people with pollen allergies and possibly also lead to more people becoming allergic to pollen. Over the recent years there has been an increase in the number of people with allergies in Denmark.

[60] Ebbensgaard, T.; Frederiksen, L.; Laustsen, K; Flindt, R.M.; Canal-Vergés, P., 2022: Havvandsstigningers betydning for naturen (COWI og SDU).

With a longer pollen season, higher pollen counts and more mould spores in outdoor air, many people will experience more symptoms (asthma and hay fever) and will need intensified preventive treatment. Furthermore, more people are likely to develop allergies (hay fever and asthma). Very allergenic pollen species such as ragweed, have already found a habitat in Denmark. During the pollen season, Asthma-Allergy Denmark sends out daily reports on the air's content of the most important allergenic pollen types.

Infections and similar when temperatures increase and in connection with flooding:
Flooding of built-up areas has been documented to increase the risk of infections in connection with e.g. work to clear up basements flooded by polluted wastewater. Weil's disease (leptospirosis) is a disease that can be transmitted from rats to humans. The infection usually occurs through water via the rat's urine. Flooding that affects access to or the functioning of important institutions in society may also affect human health. For example, flooding may cause delays in the treatment of patients.

Temperature increases and increased risk of extreme weather events will increase the risk of food- and water-borne infections. Outbreaks of a number of tick-borne diseases like tick-borne encephalitis (TBE) and Lyme disease will also be a risk. In the long term, there could also be a risk of mosquitoborne diseases that are restricted to tropical or subtropical areas today. The Danish Veterinary Consortium monitors the occurrence of biting mosquitoes, mites, and ticks in various areas of Denmark and since 2011 has carried out monitoring for West Nile Virus (WNV) and Usutuvirus (USUV), a virus related to WNV. The monitoring shows that outdoor poultry and biting mosquitoes in Denmark are free of WNV/USUV. Between 1-6% of migrating birds from the south are found to be positive in tests for antibodies.

After longer periods with warm seawater, an increased concentration of certain marine bacteria such as Vibrio vulnificus will comprise an infection risk for fishermen and swimmers, and there may be more incidents of algal blooms and dangerous jellyfish. Vibrio bacteria are found naturally in the Baltic Sea and grow when the water temperature is over 20°C for several days in a row. The bacteria can cause infection if they come into contact with a wound on the skin or if the water is swallowed. European Centre for Disease Prevention and Control monitors Vibrio growth in the Baltic Sea during the summer using remote sensing data to examine environmental conditions such as sea surface temperature and salinity for Vibrio bacterias (the ECDC Vibrio map viewer).

More powerful storms and extreme weather events can increase the risk of injury:
Experience reveals that a greater number of injuries can be linked to e.g. an increase in outdoor activity and more outdoor work in the building and construction industry.

Warmer summers and more precipitation enhance the risk of damp and mould:
Expected increases in damp and mould can cause health problems such as asthma attacks and hay fever and may increase the risk of respiratory infections. Furthermore, the existence of a greater number of house dust mites may lead to an increase in symptoms (asthma and hay fever) and intensified preventive treatment in individuals who are allergic to house dust mites. Moreover more people are likely to develop allergies.

Air pollution

Changed temperature and precipitation conditions also result in a change in air quality. Drought leads to dry areas where particles can be released into the air and more forest fires are to be expected as a source of air pollution. The occurrence of ground-level ozone – not to be confused with the ozone layer – will also increase. The climate-related air pollution particularly affects people with reduced heart and lung function and increases the risk of more ailments and reduced quality of life.

In situations where the ozone levels reach above a threshold value set by the EU (180 micrograms per cubic meter measured over one hour), the Danish Environmental Protection Agency will issue information, so that the population can take their own precautions.

The environmental authorities must issue an actual ozone warning if the concentration reaches the limit set by the EU (240 micrograms per cubic meter measured over one hour).

Cross-sectoral areas

There will be direct physical climate change impacts in three cross-sectoral areas:
emergency preparedness, insurance and spatial planning.
These cross-sectoral areas, however, are characterised by providing services to other sectors that are more directly vulnerable to changes in climate.

Spatial planning is vital for cross-sectoral preventive efforts within climate change adaptation and has potential to promote solutions with multiple benefits, including measures with values within tourism, recreation, nature, health and so on.

Emergency preparedness aims to prevent or reduce the extent of damage from extreme weather events, whereas the insurance industry provides compensation to those who have suffered damage. Both of these cross-sectoral areas are vital in mitigating the negative impacts of extreme weather events in other sectors and industries.

Emergency preparedness and fire and rescue services
The effects of climate change are expected to continue to place high demands on national and municipal fire and rescue services. These demands cut across traditional sector lines in dynamic and complex ways.

Incidents involving flooding require several types of responses from Danish national and municipal fire and rescue services. For example, in responding to a storm surge, extreme rainfall, etc. with potential water damage, fire and rescue services work to identify vulnerable buildings, infrastructure, prevent or mitigate flooding using flood containment means and pumping water away from low-lying areas. In other responses, fire and rescue services may also be requested to assist in establishing emergency power supplies. Another important task is protection of health and the environment when flood water becomes contaminated with sewage water or when industrial areas containing chemical substances flood. If flooding leads to contamination of drinking water, Danish fire and rescue services can assist with the distribution of clean drinking water.

Serious transport accidents and other incidents resulting in personal injury due to extreme weather events also create a series of tasks for rescue services. Particularly intense storms, snow storms, and flooding incidents may create a need for the provision of rescue services, including rescuing of people and animals from affected areas and temporary housing and food relief services for those in need (e.g., in the case of evacuation, road or bridge closures and so on).

More frequent and longer-lasting drought periods contribute to the risk of wildfire with the potential to also spread to built-up areas. This may result in a greater volume and complexity of tasks for Danish fire and rescue services, including fire extinguishing and post-extinguishing operations. In addition to risks posed by drought, an increased focus on establishing 'untouched' forests with minimal nature management intervention (e.g., removing dead trees and brush) benefit biodiversity, but simultaneously increase the risk of wildfires.

Furthermore, an increase in the number, duration, and intensity of heat waves during summer months may require increased assistance from the Danish fire and rescue services to health authorities. Historically, the Danish Emergency Management Agency (DEMA) has been deployed internationally as well as nationally to assist in response efforts to natural disasters, such as floods and wildfires. The increase in number and severity of climate and weather related incidents in other countries, could therefore also place an additional burden on DEMA's capacities.

DEMA and the municipal fire and rescue services' efforts vis-à-vis future climate-related challenges, mainly focus on natural hazard contingency planning and prioritization of relevant equipment purchases such as fire fighting equipment, powerful pumps, water tubes, sandbag fillers, transport and lifting capacity, lighting equipment etc. The scale of the investments required depends however, on preventive measures across many sectors (e.g., regarding land use, design, and dimensioning of buildings, sewage systems and roads, coastal management and protection, and preparedness and contingency planning). The closer the collaboration and coordination, the better effects of climate change can be managed.

Insurance
Due to the gradual changes in climate, historical statistics of weather and climate events cannot necessarily be used as a reliable prediction of the risk of such events. Insurance companies are therefore less able to accurately predict damage and address risks, unless climate change projections are somehow accounted for. Companies therefore try to minimise uncertainty via the measures described below.

Danish insurance companies are typically re-insured in large international reinsurance companies that also insure against financial losses from earthquakes, tropical storms and other large natural disasters, and to some extent, also from acts of terrorism. The storm Anatol in 1999 made the Danish insurance companies aware of the importance of having sufficient reinsurance capacity. Some insurance companies realized in 1999, that they ran out of capacity, which led a lot of the insurance companies to increase their reinsurance programs. The programs are typically renewed annually. An

increase in the intensity of cloudbursts and other extreme weather events in Denmark will lead to an increase in the costs of reinsurance.

For both citizens and enterprises, climate change will entail a risk of higher premiums, lower coverage or the introduction of special terms for taking out insurance. Differentiated premiums (so-called "micro tariffing") might be used more extensively, which means premiums will be determined based on where buildings are located (are they located where the risk flooding is particularly large or small?), the special characteristics and technical design of buildings, as well as their damage history. This will entail that particularly exposed properties may be at greater risk (e.g. if the sewer system is under-dimensioned or if the property is in a low-lying area, and if potential damages cannot be prevented through ordinary preventive measures such as backflow blockers) and therefore cannot be insured or can only be insured against paying extremely high insurance premiums. This, in turn, may affect the sales opportunities of the relevant properties. To adapt to this development, Denmark has introduced the Danish "*National Insurance Scheme for Natural Disasters*", described in more detail in III.D.b).

Transition risks arise in the progression towards a greener economy and derive from extensive political, legal and technological changes, as well as preferential and market changes, such as carbon taxes or changes in consumption patterns in relation to travel, food or the like. These can lead to significant changes in the value of many assets and create changed credit exposures for financial enterprises, as costs and new business opportunities materialise. There may also be reputational risks associated with a lack of or slow conversion to more climate-friendly business models, as well as liability risks for companies that fail to adequately disclose or address their impact on the climate.

Spatial planning
Climate change is a challenge for both new and existing designation of land. The municipalities need the right knowledge to incorporate climate change in their spatial planning.

The municipal councils are responsible for spatial planning in municipalities. The municipal development plan is an overall plan for land use in the individual municipality. The municipal development plans must not conflict with overall planning and governmental interests. Furthermore, local development plans in the municipality must be in accordance with the overall municipal development plan and with any national planning directives that relate specifically to the area in question.

The Minister of Interior and Housing has the power to intervene in local planning to ensure concepts of national interest by for example, objecting to proposed municipal development plans on behalf of all central-government bodies. Changes in or addition of new land use, for example in connection with adaptation to climate change, can fall under the concept of national interests.

Spatial planning is an effective instrument of control that can contribute to reducing or eliminating the negative effects, as well as exploiting the positive effects of climate change in a number of sectors and industries.

In 2018 new regulations in the planning act were introduced. Their objective is to prevent flooding and erosion when planning for new urban areas, urban densification of existing city, technical facilities or changed to land use and so on. Besides mapping areas in danger of flooding and erosion, it is now compulsory to introduce mitigation or remedial measures, if the planned area is assessed to be exposed to flooding and erosion.

3.2.3 Approaches, methodologies and tools, and associated uncertainties and challenges, in relation to paragraph 107(a) and (b) above.

The Danish Climate Atlas
In 2019, the Danish Meteorological Institute (DMI) launched The Danish Climate Atlas as a regional assessment of IPCC-scenarios, which provides data on municipality, drainage basin and coastal stretch levels showing future changes in temperature, precipitation, extreme precipitation, relative sea level and storm surge heights. It thereby gives an indication of areas with a particular future risk of being impacted by extremes. The tool provides fundamental climate data for planning adaptation.

Data in the Climate Atlas shows the future Danish climate in the beginning, middle and end of the century for different greenhouse gas emission scenarios. The Danish Climate Atlas is an authoritative data set on the projected physical changes in weather and climate, e.g. precipitation until it hits the ground and sea water until it hits the coast. In order to assess e.g. risk of flooding, the data in the Climate Atlas needs to be combined with local data and knowledge on ground water levels, sewers, dikes etc. to complete the full impact analyses of the changing climate conditions.

HIP – a Hydrological Information and Prediction system

HIP is an open geodata tool that visualises and provides access to large, free of charge national datasets about hydrological conditions and how they are expected to change with a warmer and wetter climate in the future. Data comprises free public hydrological data and hydrological model simulations that include predictions of future climate change impacts on the depth of the shallow groundwater, river discharge and soil moisture.

HIP was developed under the Joint Government Digitalization Strategy 2016-2020 as a collaborative project between local, regional and national authorities and water utilities in Denmark. HIP comprises more than 5 terrabytes of simulated hydrological data that are visualised at HIPdata.dk using maps and graphs. The aim of HIP is to support screening and collaborations among stakeholders regarding the need for climate adaptation and to provide easy access to data for climate adaptation planning and execution.

HIP-data can also be downloaded and retrieved by webservices to support the development of local solutions for climate adaptation, water management and planning in Denmark. For example, the climate adaptation tool KAMP uses selected HIP-data on shallow groundwater. Housing companies also use HIP-data to inform property owners about the level of groundwater depth.

At HIPdata.dk, a larger range of simulated data, including seasonal variation and statistics are available, and spatial variation in model uncertainties for shallow groundwater and river discharge are visualised to inform (and guide) the users. Simulated water percolation and groundwater flows can also be downloaded to serve as boundary conditions for local-scale modelling by hydrological experts.

Drought and national fire hazard indices on Brandfare.dk

Other examples include DMI's drought index and a national fire hazard index developed in 2020 by DMI for "Brandfare.dk", which is a collaboration between *DEMA*, Danske Beredskaber (the municipal rescue companies' interest organisation) and the national association of municipalities, KL. The index shows a map of geographic areas in Denmark at heightened risk of wildfire with a 5-day prognosis by combining data on precipitation, humidity, vegetation moisture and wind conditions (similar to the European fire hazard index from Copernicus). This may in turn provide the municipal authorities with a better basis for deliberations on issuing burning bans during droughts, proving risk information to citizens, and for the operational planning of fire and rescue services.

Response is recorded for future analyses

Rescue and fire services' response to climate-related incidents have been registered in the Danish Emergency Management Agency's system (ODIN) since 2007. These data can contribute to potential future analyses regarding the frequency and nature of climate incidents seen from a preparedness perspective.

Assessments of socio-economic vulnerability

Nationally funded work on assessments of socio-economic vulnerability, risks and damage is also under development, including initiatives to improve data and modelling. The initiatives aim to ensure risk-based and socio-economically viable climate change adaptation. 3 main projects aim to 1) establish nationally available digital damage costs and models that calculate damage costs on buildings and homes using new data from the Danish trade association for insurance companies and funds; 2) establish improved models for calculation of indirect damage with focus on businesses and production loss and 3) further develop methods and models for intangible consequences and loss from flooding and erosion incidents. These are more difficult to valuate financially, but the aim is to include these in analyses in the foundation for decision-making.

Monitoring effects of climate change on the environment

In 2021, the University of Aarhus produced a report for the Danish Environment Protection Agency on environmental indicators for monitoring effects of climate change on the environment. The report collects and presents existing data that can be applied to identify the potential for application of a number of indicators in documentation of the effects of climate change on Danish natural environments.

A list of potential indicators include those applicable in terrestrial, farmland, marine and freshwater environments and are already applied as indicators in the national monitoring programme NOVANA. The report also identifies knowledge gaps toward the development of indicators. Applicability, along with availability of data and analytical methods are discussed and suggestions for potential climate indicators are presented.

The Danish Environment Protection Agency is working on identifying which indicators, or combination of indicators in the NOVANA programme, can be used to monitor effects of climate change on the environment. Indicators used for monitoring coastal waters, including temperature and chlorophyll

concentration, have promising prospects for application. Monitoring frequency of some indicators may need to be adjusted for application as climate indicators.

Removal of carbon-rich lowlands areas from production
From 2020-2022, DKK 600 million has been allocated to removal of carbon-rich lowland areas from production. In 2022 alone, it is expected that approximately 1,100 ha of lowland areas will be removed from production and thus reduce CO_2 emission by approximately 16,000 tons. In addition to climate change mitigation action, the program also focuses on creating synergistic solutions that comply with the EU Water Framework Directive, the Habitats Directive, biodiversity, protected areas, clean drinking water, recreational value, organic farming and climate change adaptation.

MUFJO – Multi-purpose landuse distribution
In 2020-2022, a pilot project with the goal of applying multi-purpose landuse initiatives is being applied to realise projects that combine agricultural production with other initiatives. These include improvement of the aquatic environment and drinking water, greenhouse gas emissions reduction, protection of Natura2000 areas and appendix IV species, climate change adaptation, afforestation, biodiversity and nature protection, organic farming and local recreational values. It is expected, that 6-7000 ha of land will be re-distributed. DKK 150 million have been allocated to the project.

3.3 ADAPTATION PRIORITIES AND BARRIERS

3.3.1 Domestic priorities and progress towards those priorities

Current national adaptation priorities are presented in the Danish National Climate Adaptation Plan 1 (https://edit.mst.dk/media/bd1ho52f/faktaark-1.pdf). Denmark is a flat country with a long coastline and many islands, which makes Denmark particularly vulnerable to coastal flooding and high groundwater levels. Denmark has therefore prioritised following actions:

- Technical and financial support to particularly vulnerable coastal areas
- Beach nourishment and maintenance of coastal infrastructure along the west coast
- Governance and structural solutions to strengthen municipal coastal protection
- Governance and structural solutions to issues with high groundwater levels in cities
- A cross-ministerial task force
- Analyses of costs and investment needs
- Focus on development of climate change adaptation in harmony with nature and environment, including an in-depth look at regulatory challenges

3.3.2 Adaptation challenges and gaps, and barriers to adaptation.

Main barriers to adaptation include:

- Financing gap and need for financing mechanisms
- Need for coordinated regulation
- Need for coordinated governance
- Lack of coordinated data
- Need for more research and focus on potential of nature-based solutions
- Need for landscape-based and integrated management plans

3.4 ADAPTATION STRATEGIES, POLICIES, PLANS, GOALS AND ACTIONS TO INTEGRATE ADAPTATION INTO NATIONAL POLICIES AND STRATEGIES

3.4.1 Implementation of adaptation actions in accordance with the global goal on adaptation as set out in Article 7, paragraph 1, of the Paris Agreement;

The implementation of adaptation actions in Denmark are to be seen as implementation of adaptation actions in accordance with the global goal on adaptation as set out in Article 7, paragraph 1, of the Paris Agreement: “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2”.

3.4.2 Adaptation goals, actions, objectives, undertakings, efforts, plans (e.g. national adaptation plans and subnational plans), strategies, policies, priorities (e.g. priority sectors, priority regions or integrated plans for coastal management, water and agriculture), programmes and efforts to build resilience;

Further to the Danish National Adaptation Plan 1 presented in Chapter 3.3.1, agreements and strategies in other sectors include the following:

Agreements in the agricultural sector

There is no overall strategy for climate change adaptation for the agricultural sector. However, several political agreements such as the Political Agreement on a Green Transition of the Agricultural Sector[61] from 2021 have multiple climate mitigating measures with positive climate adaptation effects. The agreement aims to take 100,000 ha of organic soils, including peripheral areas, out of production and rewet them, in order to reduce greenhouse gas emissions. Climate change adaptation is an additional benefit, by adapting production areas to increased rainfall and thus reducing flood-risk on productive land. The Political Agreement on Drought from 2018 has also supported this overall goal.

There is an ongoing crop breeding effort to develop new varieties better adapted to the evolving climate and with better resistance towards existing and emerging pests and diseases. Emerging pests and diseases are monitored and information campaigns are run.

New regulation in the Danish CAP plan will from 2023 allow for support to mixed and more diverse cropping systems such as agroforestry.

The Tripartite Agreement from 2024 is a political agreement between the agricultural sector, foods sector, nature sector and industrial sector, in cooperation with the government and the national association of municipalities (KL), have agreed on a long term integrated plan for the sectors. The political agreement[62] involves land conversion to accommodate the many interests and needs for land in Danish river basins. Initiatives include redistribution of land for reforestation, removal of carbon-rich lowlands and acquisition of land to reduce nitrogen loading, with benefits for biodiversity, aquatic environments and drinking water, along with reduced climate impact.

National strategy for sustainable growth in Danish tourism

The Ministry of Industry, Business and Financial Affairs works closely with national tourism organisations, including Danish Coastal and Nature Tourism. The organisations support local administrative bodies in implementing local strategic development plans and carrying out projects that demonstrate recreational benefits of climate adaptation measures.

In June 2022, the Danish government launched a new national Strategy for Sustainable Growth in Danish Tourism that sets a common direction for the development of Danish tourism towards 2030. The strategy presents three major goals and 26 initiatives that aim to balance environmental, economic and social sustainability and contribute to the national goal of 70% emissions reductions by 2030. Initiatives focusing on green transition of the tourism industry include areas such as investment in green infrastructure for recreational purposes, distribution of electric charging points and climate-friendly domestic aviation.

The National Tourism Forum will oversee the implementation of the national Strategy for Sustainable Growth in Danish Tourism (2022) and publish annual reports on the progress on goals and initiatives, including those on climate change adaptation.

National insurance scheme for natural disasters

Insurance companies underwriting fire insurance in Denmark are required by law to collect an annual fee of DKK 40 per fire insurance policy. This sum covers the cost of a compensation scheme for damages caused by storm surge, drought, windfalls and flooding from watercourses and lakes. The scheme is administered by a the Danish Natural Hazards Council assisted by the insurance companies.

[61] https://en.fvm.dk/focus-on/the-agreement-on-a-green-transition-of-the-agricultural-sector/
[62] https://mim.dk/media/5jsoi3se/aftale-om-et-groent-danmark.pdf

Implementation of the Danish Flood Risk Act (EU Floods Directive)
The Danish Flood Risk Act relates to the Directive 2007/60/EC of the European Union on the assessment and management of flood risks. The purpose of the Directive, implemented in Danish law by the Danish Flood Risk Act, is to identify flood risks and improve preparedness for future flood events and flood risk management.

In Denmark, 10 flood prone areas have been appointed in the first cycle. In nine of the 10 flood prone areas, the source for flooding comes from the sea or from both the sea and rivers. Only one of the areas has an entirely fluvial risk source.

In the second cycle, the methodology of appointing areas of potential flood risk was reassessed and updated, in order to simplify risk assessments and improve applicability, including by recognising that flood risk is dynamic and changes over time. The aim was also to rest the national assessments on a more quantitative basis through, for example, formulas and statistics.

Reassessments of national risk were carried out in areas that had experienced increased vulnerability and resulted in the appointment of four additional areas: a total appointment of 14 potential flood risk areas.

In the third step of the act, risk management plans have to be prepared. The risk management plans allow municipalities to prevent, protect and prepare for climate change. They are drawn up on the basis of maps and guidance material from the Danish Coastal Authority.

In autumn 2021, 22 out of a total of 27 designated municipalities had reviewed and adjusted their risk management plans from the first cycle. These plans were adopted in 2015 by the municipal boards and municipalities have since worked to implement measures to reduce risk. 22 municipalities had adopted their updated risk management plan, in which they have given status on the implementation of the measures planned in their first risk management plan. The remaining five municipalities, which were appointed as flood risk areas in 2018, adopted their first risk management plan in autumn 2021.

Based on the municipalities' status in the updated risk management plans, it appears that the 22 municipalities planned a total of 255 measures in 2015. Of these, the municipalities have implemented 135 initiatives and 91 initiatives are in the pipeline. This corresponds to a total of 88.6 % of the planned measures for risk management and climate adaptation have been completed or initiated in the designated municipalities. Of the 226 completed or initiated initiatives, 53 are initiatives within prevention, 78 within protection, 37 are preparedness initiatives and 58 are preparatory work.

Implementation of the Water Framework Directive
The EU Water Framework Directive (WFD) provides the framework for protection and conservation of watercourses, lakes, transitional waters, coastal waters and groundwater in all EU countries. The directive applies a number of environmental goals and provides the framework for the administrative structure for planning and executing initiatives to meet goals. The WFD is implemented in Danish law via the law on river basin management planning (LBK nr. 126 of 26/01/2017).

The EU Floods Directive is to be carried out in coordination with the WFD, notably by coordinated flood risk management plans and river basin management plans, and through coordination of public participation procedures and in the preparation of these plans. Denmark is working toward improving coordination and collaboration in these areas.

The third Danish river basin management plan was published in June 2023. Beyond describing river basin management plans for Denmark, the plan also outlines the effects of climate change on aquatic ecosystems. These include impacts from higher temperature in surface waters, changes to groundwater levels, increased runoff of nutrients and hazardous substances to aquatic environments and changes to hydrological regimes. The impacts have consequences for hydromorphology, physico-chemical and biological quality indicators and thus the ecological and chemical status of water bodies.

The plan also identifies that healthy aquatic ecosystems in good status are more robust toward anthropogenic impacts and climate change. Robust ecosystems have greater potential to mitigate impacts from drought and flooding. Specifically for watercourses, the plan describes how many of the mitigation measures implemented to improve physical conditions, also can contribute to climate change adaptation. For example, restoration of river valleys, including re-meandering of watercourses, can help to hold back water, reduce nitrate runoff and nitrous oxide emissions.

Coastal fund
In the year 2020-2024 the government has established a fund with DKK 540 million earmarked for reinforcement of dikes along the Wadden Sea and municipal projects against coastal protection.

Environmental Technology Development and Demonstration Program (MUDP)
The program aims at ensuring a better environment as well as strengthening green exports and jobs. The program is a continuation of the Danish efforts since 2007 to promote new environmental technologies, so that Denmark will have a strong position on the global market. In 2022, the government allocated DKK 120 million to new innovative projects. In 2024 DKK 10 million was specifically allocated for adaptation related projects.

3.4.3 How best available science, gender perspectives and indigenous, traditional and local knowledge are integrated into adaptation

The Ministry of Higher Education administrates the national research reserve, which is a part of the national finance law that is reserved for research in upcoming years. The reserve provides basis funding for national universities. The 2024 reserve[63] has delegated 255 million euro (out of a total of 563 million euro) for research in climate and green transition, including carbon capture, development of plant-based foods, development of climate and environmentally friendly agriculture, changes to fishing practices and aquaculture, climate monitoring and Artic research.

3.4.4 Development priorities related to climate change adaptation and impacts

Amendments have been made to the Danish Planning Act. These are presented under (f) below.

3.4.5 Any adaptation actions and/or economic diversification plans leading to mitigation co-benefits

Denmark has no economic diversification plan and we have no information on adaptation actions leading to mitigation co-benefits.

3.4.6 Efforts to integrate climate change adaptation into development efforts, plans, policies and programming, including related capacity-building activities

Amendments to the Planning Act
In June 2012, an amendment to the Planning Act made it possible for municipalities to include climate change adaptation directly in local development plans.
In 2018, new rules in the planning act were introduced in order to prevent flooding and erosion when planning for new urban areas, densification of existing city, special technical facilities or changed land use etc. Beside mapping areas in danger of flooding and erosion, it is now compulsory to introduce mitigation or remedial measures, if the planned area is assessed to be exposed to flooding and erosion. Further guidelines and examples on how and what data to use in local government spatial planning and work on climate change adaptation have been launched.
In June 2022, climate change was included in the statutory objective of the Planning Act, with the goal to strengthen integration of climate change parallel to integration of environment, nature, development and growth interests.

Amendments to the Coastal Protection Act
In 2017, an amendment to the statutory objectives in the Coastal Protection Act gave property owners greater freedom to select methods of coastal protection. Since September 2018, the administration of legislation concerning coastal protection lies at municipal level.

New regulation of wastewater utilities' investments in climate change adaptation
In 2021, new rules regulating wasterwater utilities' investments in climate change adaption went into effect. Municipalities can decide to heighten wastewater utilities' service levels in accordance with socio-economic viability, calculated using a defined method. This prevents over-investment. Wastewater utilities can co-finance with any relevant partner to finance the most efficient climate change adaptation initiative. The wastewater utilities' increased investments in climate change adaptation continues to be within their financial framework, as supplements to their financial frameworks are available, subject to approval by the Danish Water Regulatory Authority. Wastewater utilities are required to report their level of investment and service provided on a yearly basis.

High groundwater level
As part of the Danish National Adaptation Plan 1 from 2023, new regulation is under development that aims to allow for the development and implementation of collectively financed solutions for handling

[63] https://ufm.dk/aktuelt/pressemeddelelser/2023/filer/endelig-aftale-om-forskningsreserve-for-2024.pdf

high groundwater levels in areas covered by municipal waste water plans, and on conditions on a positive cost-benefit analysis.

KAMP
KAMP is a screening tool that compares selected national data, calculations and projections and it is aimed, in particular, at planning and environmental employees in municipalities. KAMP is based on the most recent surveys and datasets available at national level.

KAMP shows the areas where possible climate change impacts may require attention. KAMP can also be used to determine how many buildings and kilometres of road, potentially can be affected by flooding, and it can estimate the value of the buildings and constructions that risk damage. A reporting function makes it possible print out relevant data and maps. The tool also contains an option that allows uploading of a QGIS file, allowing further work on the same dataset and mapping in the user's system.

KAMP was developed in collaboration between the Danish Natural Environment Portal and the Danish Environmental Protection Agency in consultation with the national association on municipalities (KL), the Danish Business Authority, Central Denmark Region and a number of selected municipalities. KAMP is available at www.klimatilpasning.dk

Kystplanlægger
Kystplanlægger.dk is a nationwide risk assessment of coastal risks, i.e. erosion and flooding, and also includes suggestions for strategies and specific initiatives that can be applied directly by municipalities in their planning and climate change adaptation efforts along coasts. The risk assessment has been completed for the entire Danish coastline, which stretches 7,300km. Three time perspectives were examined: Today, as well as a 50-year and 100-year perspective up to 2120.

Kystplanlægger is intended to form the scientific basis for future climate change adaptation in Danish coastal areas, at national as well as local level. On the basis of the most recent coastal engineering knowledge, nationwide modelling and comprehensive risk calculations, Kystplanlægger provides a national overview that municipalities can use in their coastal protection efforts, at strategic as well as operational levels.

Kystplanlægger encourages comprehensive solutions across longer stretches of coast; solutions that are not only cost-effective and with optimal impact, but which also benefit the local community in general. Homeowners planning to establish coastal protection can therefore also find ideas in Kystplanlægger, as well as use it as a basis for their decisions.

PLASK
PLASK (SPLASH) is a free, excel-based tool that the Danish Environment Protection Agency is making available to everyone who may benefit from calculating the socio-economic benefits of climate change adaptation solutions. The tool is targeted at utility companies and municipalities that develop solutions together. These solutions are often cheaper and result in more benefits than traditional, pipe-based projects. The tool makes it possible to compare up to three different climate change solutions designed to address the same flood risk. The solutions are compared on three parameters: 1) socio-economic benefit – does it pay to adapt to climate change, 2) costs allocation – who should pay and finally 3) what added value does the project provide? PLASK is available at klimatilpasning.dk.

3.4.7 Nature-based solutions to climate change adaptation
Denmark implements nature based solutions when restoring environments for biodiversity protection purposes, such as in the development of river based management plans under the Water Framework Directive, with adaptation and mitigation co-benefits. Nature based solutions are also implemented when protecting coastlines, e.g. in the utilisation of beach nourishment, stone gardens and restoration of sand dunes. Nature based solutions are implemented in cities, including in the utilisation of green roofs, green walls and rainwater beds. Many of these solutions are presented on Klimatilpasning.dk.

3.4.8 Stakeholder involvement, including subnational, community-level and private sector plans, priorities, actions and programmes
Municipalities are the climate change adaptation authority in Denmark and ensure stakeholder engagement and ownership in the planning and implementation of projects. Processes include citizen meetings, neighbourhood consultations and locally adapted information campaigns.

3.5 PROGRESS ON IMPLEMENTATION OF ADAPTATION

3.5.1 Implementation of the actions identified in chapter IV.D above

Progress on the implementation of actions described is included in text in Chapter 3.4.

3.5.2 Steps taken to formulate, implement, publish and update national and regional programmes, strategies and measures, policy frameworks (e.g. national adaptation plans) and other relevant information

Denmark has recently launched National Climate Adaptation Plan I and is currently looking into further political climate adaptation initiatives.

3.5.3 Implementation of adaptation actions identified in current and past adaptation communications, including efforts towards meeting adaptation needs, as appropriate

This information is provided in Chapter 3.4.

3.5.4 Implementation of adaptation actions identified in the adaptation component of NDCs, as applicable

Many initiatives within mitigation and adaptation have mutual benefits if they are nature-based. An example is the recent 'Agreement on a Green Denmark' that establishes a framework for reducing greenhouse gas emissions in the agri-food sector, which will contribute to realising the Danish national climate target in 2030 and meet Denmark's obligations under the Effort Sharing and LULUCF regulations. Efforts will be made to increase afforestation and improve conditions within nature, biodiversity, water environment, and drinking water, including by setting out principles to ensure compliance with the EU Water Framework Directive and through the establishment of a Green Area Fund to support the transition. A component is the rewetting of peatland, which will have both adaptation and mitigation benefits. There is however currently no inventory of the contribution to adaptation efforts.

3.5.5 Coordination activities and changes in regulations, policies and planning.

With the launch of the National Climate Adaptation Plan I, a high level cross-ministerial taskforce was appointed to coordinate and asses the need for new efforts as a result of new knowledge, assessments of risks and regulatory challenges. The task force have been meeting regularly since the launch of the plan.

One of the initiatives in the National Adaptation Plan I is also a solution for handling high ground water levels in cities. The solution will mean that the municipalities must designate urban areas with high levels of groundwater, where the waste water companies can or shall create collective solutions, for example by laying drainage pipes. A law is currently being drafted to implement the initiative. The law proposal is expected to be presented in the upcoming parliamentary session and is currently planned to be adopted on 1 July 2025.

3.6 MONITORING AND EVALUATION OF ADAPTATION ACTIONS AND PROCESSES

3.6.1 Achievements, impacts, resilience, review, effectiveness and results

Denmark does not have a formalised monitoring and evaluation system for adaptation actions.

3.6.2 Approaches and systems used, and their outputs

Denmark does not have a formalised monitoring and evaluation system for adaptation actions. However, an evaluation of municipal climate change adaptation efforts was carried out in 2016 and flood risk management plans were evaluated in 2022.

3.6.3 Assessment of and indicators for adaptation actions

Denmark does not have a formalised monitoring and evaluation system for adaptation actions.

3.6.4 Implementation

Denmark does not have a formalised monitoring and evaluation system for implementation of adaptation actions.

3.6.5 Ownership, stakeholder engagement, alignment of adaptation actions with national and subnational policies, and replicability

Denmark has not evaluated these parameters.

3.6.6 The results of adaptation actions and the sustainability of those results

Evaluation of municipal climate change adaptation efforts

In the period February to August 2016, a working group with representatives from the Ministry of Environment and Food of Denmark, the Ministry of Energy, Utilities and Climate and the Ministry of Business and Growth carried out an evaluation of municipal climate change adaptation efforts.

Efforts include climate change adaptation plans that map the risk of flooding, specify priorities and provide an overview of achievements.

Results of the evaluation of efforts were presented in National Communications 7 and are presented here (www.klimatilpasning.dk/media/1174683/evalueringsrapport.pdf). These included discrepancies in detail and scoping of topics, identification of financing mechanisms, and indications of successful coordination of climate change adaptation efforts with other spatial planning efforts.

Evaluation of flood risk management plans according to the EU Floods Directive

An evaluation of implementing the EU Flood's Directive in Denmark, shows a positive impact on raising awareness of flood risk. After two cycles, experience shows that the municipalities designated as risk areas and that therefore prepare risk management plans, are further ahead in their climate adaptation compared to other municipalities.

The 22 municipalities, appointed in 2011, planned a total of 255 initiatives in 2015. Of these, the municipalities have implemented 135 initiatives and initiated 91 initiatives. This corresponds to a total of 88.6% of the planned initiatives for risk management and climate adaptation being implemented or initiated in the designated municipalities.
Of the 226 completed or initiated measures, 53 are related to prevention, 78 to protection, 37 are preparedness measures, and 58 are preparatory work. In the second generation of risk management plans, adopted in the fall of 2021, the municipalities have planned a total of 435 measures, with the distribution of measures within prevention, protection, preparedness.

Drawing up risk management plans encourages the municipalities to, within a statutory framework, analyse hazard and risk maps in relation to flooding, set targets for risk reduction, prioritise efforts, identify responsible units and follow up on implementation. Thereby, the municipalities become aware of the consequences of flooding and have to deal with the subject and the dilemmas and challenges that climate adaptation entails, as well as to make plans for how the challenges are to be handled.

3.7 Information related to averting, minimizing and addressing loss and damage associated with climate change impacts

3.7.1 Observed and potential climate change impacts, including those related to extreme weather events and slow onset events, drawing upon the best available science

See Chapters 3.1-3.6 above.

3.7.2 Activities related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change

See Chapters 3.1-3.6 above.

3.7.3 Institutional arrangements to facilitate the implementation of the activities referred to in paragraph 115(b) above

See Chapters 3.1-3.6 above.

3.8 COOPERATION, GOOD PRACTICES, EXPERIENCE AND LESSONS LEARNED

3.8.1 Efforts to share information, good practices, experience and lessons learned

3.8.1.1 Efforts related to - Science, planning and policies relevant to adaptation

The Danish Environmental Protection Agency manages Klimatilpasning.dk, which is a knowledge-sharing platform. The platform also advertises relevant conferences relevant for adaptation stakeholders. This is further described in Chapter 3.7.4.4 below.

3.8.1.2 Efforts related to - Policy innovation and pilot and demonstration projects;

Cities and rising sea levels

In 2017, the Ministry of Environment by the Danish Coastal Authority and Realdania (A Danish philanthropic association) formed the partnership "Cities and rising sea levels initiative". The partnership supports the development and realisation of a number of projects with innovative ideas for possible solutions that can combine the need to protect against seawater rise with the need to ensure access to the sea. 18 projects have been selected. DKK 77 million have been earmarked for the initiative.'

National Network for Climate Adaptation

In 2020, a large number of public and private organisations chose to gather their effort in a new National Network for Climate Adaptation. The networks unites several former partnerships. The network has created a strong, common framework for a large number of professional activities within three main areas: Research and development, projects, and competence development.

LIFE ACT

In a collaborative effort between 5 Danish regions, 27 Danish municipalities and the Central Denmark EU Office, along with partners and associated partners across governance levels, the LIFE ACT partnership aims to accelerate climate action throughout Denmark[64]. The project focuses on challenges that the individual municipality cannot solve, but which only can be solved in broader collaborations. The project will facilitate collaboration across municipalities and contribute to knowledge and experience gain and dissemination, in order to enhance capacity building for all relevant actors. The project has a total budget of just over 27 million euro and applied for 60% funding from the EU LIFE Program. The project is planned to start in January 2025 and last eight years.

The Climate Alliance

In Chapter III. A, Denmark presented the DK2020 network, where all 98 municipalities receive technical support and share knowledge in their development of climate actions plans that live up to the Climate Action Planning Framework defined by C40. The Climate Alliance[65] was established to transfer plans to action, in a 5-year partnership between municipalities, 5 Danish regions and the national association of municipalities (KL). The Alliance will help collect knowledge and guide municipalities in their implementation of climate action plans, establish a monitoring network, develop a framework for annual reporting and identify barriers for implementation.

3.8.1.3 Efforts related to - Integration of adaptation actions into planning at different levels;

Amendments have been made to the Danish Planning Act. More information is presented in Chapter 3.4.6).

3.8.1.4 Efforts related to - Cooperation to share information and to strengthen science, institutions and adaptation;

The national web portal, www.klimatilpasning.dk

The Danish web portal, klimatilpasning.dk contains news, concrete cases about climate change adaptation measures for knowledge exchange and a number of knowledge products relevant for a large variety of users. Links to interactive geographic information systems, web platforms and software tools for climate change mapping purposes can also be found on the portal. The tools are made available by the Danish Meteorological Institute (DMI), the Environmental Protection Agency, the Coastal Authority, the Agency for Data Supply and Infrastructure, Geological Survey of Denmark and

[64] https://life-act.eu/english/about-life-act/
[65] https://realdania.dk/projekter/klimaalliancen

Greenland (GEUS), the Danish Society of Engineer (IDA), DTU Space and other Danish universities. The portal is aimed at municipalities, enterprises and individuals and is continuously updated with new case studies and results from concrete projects throughout the country.

3.8.1.5 Efforts related to - Area, scale and types of cooperation and good practices

See chapter 3.8.1.4 regarding klimatilpasning.dk.

3.8.1.6 Efforts related to - Improving durability and effectiveness of adaptation actions

See chapter 3.8.1.4 regarding klimatilpasning.dk.

3.8.1.7 Efforts related to - Helping developing countries to identify effective adaptation practices, needs, priorities, and challenges and gaps in a way that is consistent with encouraging good practices

With financing from the Ministry of Foreign Affairs, the Strategic Sector Cooperation establishes partnerships between Danish authorities and authorities in growth economies. The partnerships help to develop the framework for green growth and sustainable development and support partnerships and Danish trade interests. The Danish Environmental Protection Agency implements Strategic Sector Partnerships in a number of countries, where climate change adaptation is part of the project plans in Morocco and Kenya, helping to facilitate management of water and implementation of nature-based solutions.

3.8.2 Strengthening scientific research and knowledge

3.8.2.1 Research and knowledge related to - Climate, including research and systematic observation and early warning systems, to inform climate services and decision-making

Flood warning in Denmark

In 2022, the Danish government appointed the Danish Meteorological Institute (DMI) as the national authority for flood warning in Denmark. As part of the increased focus on flood warning, Denmark has become a member of the European Flood Awareness System (EFAS).

Due to climate change, Denmark can expect increased sea levels and both more frequent and more extreme cases of dangerous weather that will increase the risk of flooding. Thus, establishing a national flood warning system in Denmark is of crucial importance for Denmark's ability to prepare for and mitigate the worst consequences of flooding in the future. The risk of flooding includes several types of extreme weather, e.g. storm surges, cloudbursts and prolonged rain. In the past eight out of 10 years, Denmark has been affected by floods as a result of cloudbursts, storm surges or prolonged rain, which has affected critical functions in society.

3.8.2.2 Research and knowledge related to - Vulnerability and adaptation

National digitalisation strategy – Water from all sides

As part of a national digitalisation strategy, the Danish Ministry of Environment has received funding to ensure better digital support of climate change adaptation action; the initiative is known as "Water from all sides".

The funding is applied to projects that more accurately pinpoint risks and vulnerability, prioritise measures and document effects of climate change adaptation action. The projects will further develop existing data and models (many of which are mentioned in the following subsections), in order to increase the quality and applicability of tools and services made available for municipalities, enterprises and citizens.

Improved risk and vulnerability mapping will support prioritisation of socio-economically optimal climate change adaptation actions. The projects also aim to facilitate standardisation and collection of data across multi-stakeholder levels, helping to make data more publically available.

3.8.2.3 Research and knowledge related to - Monitoring and evaluation

Denmark does not have a national monitoring and evaluation framework.

4 Information on financial, technology development and transfer and capacity-building support provided and mobilized under Articles 9–11 of the Paris Agreement

4.1 National circumstances and institutional arrangements

4.1.1 Strategies for Danish development assistance and climate change

Denmark is one of the few developed countries that fulfil the UN goal of contributing a minimum of 0.7 percent of Gross National Income (GNI) as Official Development Assistance (ODA).

In June 2021, "The World We Share" was launched as Denmark's development strategy for 2021-2025, replacing "The World 2030". The strategy confirms Denmark's commitment to provide 0.7 percent of GNI as ODA, and makes the fight to stop climate change and restore balance to the planet one of the pillars of Danish development cooperation.

The Danish Government has in October 2020 launched the global climate action strategy 'A Green and Sustainable World' which sets the direction for Denmark's international climate efforts. It has five aims: i) Increase global climate ambition, ii) Reduce global greenhouse gas emissions, iii) Strengthen focus on adaptation and sustainable development, iv) Shift financial flows to green, and v) Cooperate with the private sector on green solutions.

4.1.2 Danish climate finance

Denmark provides and mobilises climate finance to developing countries through a range of channels and instruments. Through development cooperation programmes, Denmark provides climate-relevant ODA with a particular focus on the poorest and most vulnerable developing countries. Climate-relevant ODA comprises bilateral support to a number of countries with whom we have expanded partnerships; support through Danish multi-country programmes and instruments, such as the strategic sector cooperation with other Danish authorities, Danida Sustainable Infrastructure Finance, business instruments, strategic partnership agreements with Danish civil society partners; and support through dedicated climate funds and programmes, such as the Green Climate Fund, the Least Developed Countries Fund, the Sustainable Energy Facility for Africa (SEFA) and the UNEP Copenhagen Climate Centre.

In addition, Denmark mobilises climate finance through various international and multilateral development financing institutions, such as the Investment Fund for Developing Countries (IFU), the World Bank and the African Development Bank.

Denmark seeks to support both adaptation and mitigation related action to contribute to sustainable development. The Government is committed to increase the share of adaptation finance to 60 % of the climate-relevant engagements as part of our direct development cooperation to developing countries. Danish support to adaptation-related activities and programmes addresses the underlying causes of vulnerability, and contributes to building resilience against crises, natural disasters and the impacts of climate change. The support also assists developing countries in their efforts to integrate adaptation and emissions reduction into their national planning, and policy preparation and implementation, including as part of a country's National Adaptation Plan (NAP) and Nationally Determined Contributions (NDC).

Through both multilateral and bilateral assistance, Denmark supports increased access to sustainable energy in developing countries, improvement in energy efficiency and improved access to climate-friendly technologies. This is done by strengthening national and local knowledge and capacity, by supporting policy development and implementation, and through support to investments in preparation and implementation of specific mitigation projects. Furthermore, Denmark offers technical assistance and advice on development of investment opportunities and by strengthening local businesses in developing countries.

A significant part of Danish climate engagements target a range of expanded partnership countries, with whom Denmark has a long-term partnership for sustainable development. The Danish representations in partner countries have the primary responsibility for dialogue with the respective partner countries about programming and management of the development cooperation, including support to climate action. Denmark cooperates with national and local government authorities,

international agencies, civil society organisations, private companies, research institutions and other relevant actors, and specific projects and programmes are identified and prepared in close collaboration with national partners.

4.1.3 New and additional

According to the reporting requirements, Annex II, parties shall clarify how they have determined when resources are new and additional. For the purpose of this report, newly committed (for reporting on commitments), mobilised (for reporting on public or private climate finance mobilised) or disbursed (for reporting of disbursements) finance for climate change activities within the reporting period, and that were not reported to UNFCCC in previous reports, are considered new and additional.

Denmark sees the achievement of climate change and broader sustainable development goals as closely linked and strongly interdependent, and seeks to identify and support activities in developing countries that address multiple objectives as identified in partnership with these countries.

4.2 UNDERLYING ASSUMPTIONS, DEFINITIONS AND METHODOLOGIES

4.2.1 Methodology for reporting

Denmark's first Biennial Tranparency Report (BTR1) covering 2021 and 2022, includes figures on both commitments and disbursements of climate finance.

It is important to note that commitments and disbursements describe two different phases in the deployment of climate finance. Climate finance is committed to a specific project, programme or institution when it is finally approved by the relevant Danish authority and an agreement or similar document is signed with the recipient country or organisation. Finance is disbursed when an actual transfer has taken place to an account of the recipient country or organisation based on an existing commitment. In some cases, commitment and disbursement takes place in the same year. In other cases, disbursements will take place over a number of years following the commitment. Commitments and disbursements of climate finance are considered as mutually exclusive flows in Denmark's reporting and are not combined within Common Tabular Formats (CTF) reporting or resulting figures.

In addition, the first BTR includes public and private climate finance mobilized.

Denmark's BTR1 is to the extent possible using a similar methodology to the former Biennial Reports to allow for comparison of figures and analyses of trends.

In the following section, the methods behind tracking and reporting of bilateral, multilateral and mobilised private climate finance are explained.

4.2.2 Bilateral climate finance

For bilateral public climate finance, Denmark uses the OECD DAC Creditor Reporting System (CRS) database with its Rio markers as the basis for reporting on climate-relevant activities. The Rio markers on adaptation and mitigation are policy markers that indicate policy objectives in relation to each project or programme that is reported to the OECD's CRS. The markers are assigned based on well-defined guidelines and technical eligibility criteria agreed within OECD DAC.

The guidelines for Rio markers are part of the general ODA statistics guidelines[66], which provide concrete examples of Rio marking (Annex 20, Rio Markers). The Rio marker framework is the result of OECD DAC initiatives to improve and develop the reporting methodology related to transparency on public and private climate finance. Denmark has been an active member of an OECD working group refining and improving the Rio marker marker system to better serve the purpose of being used as the basis for climate finance reporting to UNFCCC.

[66] Converged Statistical Reporting Directives for the Creditor Reporting System (CRS) and the Annual DAC Questionnaire, OECD DAC: DCD/DAC/STAT(2020)44/FINAL; DCD/DAC/STAT(2020)44/ADD1/FINAL; DCD/DAC/STAT(2020)44/ADD2/FINAL; and DCD/DAC/STAT(2020)44/ADD3/FINAL

Rio markers are applied to all bilateral support to developing countries, except general budget support, imputed student costs, debt relief, administrative costs, and refugee reception in donor countries. All Danish bilateral support to developing countries is screened and marked with Rio markers to establish whether the project targets adaptation and/or mitigation as a "principal objective", a "significant objective" or whether these objectives are "not targeted". The markers of a project are attributed according to the extent to which the themes are explicitly addressed at the level of problem analysis (context); objectives and results; and activities as defined in the eligibility criteria.

For single partner projects, the climate relevant contribution of a specific project or programme is quantified based on the adaptation and mitigation markers. If a project or programme is marked with Rio-marker 1 ("Significant") for adaptation and/or mitigation, 50% of the project's associated finance is reported by Denmark as climate-relevant finance. If a project or programme is marked with Rio-marker 2 ("Principal"), 100% of the associated finance is reported as climate-relevant. In order to avoid double-counting, Denmark ensures that in cases where projects or programmes are marked for both adaptation and mitigation, the total amount of climate-relevant finance reported does not exceed the finance associated with the highest Rio marker, which has been allocated. A more granular approach is applied for projects and programmes with multiple partners or contributions to pooled funds.

The types of climate-specific support that are reported are "Mitigation", "Adaptation", and "Cross-cutting". The applied Rio-markers are used to distinguish between the different support types. Contributions relating to programmes, projects and activities that are assigned with a Rio-marker for either mitigation or adaptation are reported under the relevant heading. Definitions of mitigation and adaptation are in accordance with the definitions by OECD DAC. Detais are provided in Annex 20 of the OECD DAC reporting directives referred to above. Mitigation seeks to limit climate change by reducing the emissions of GHGs or by enhancing sink opportunities. Adaptation aims to lessen the adverse impacts of climate change. Contributions to programmes, projects and activities assigned with a Rio-marker for both mitigation and adaptation are reported as cross-cutting, when both markers are either "1" or "2".

A matrix indicating how climate change mitigation and adaptation Rio markers determine the type of support (mitigation, adaptation or cross-cutting) and the consequential application of Rio marker coefficients is shown in Table 4.2(1).

Table 4.2(1): Matrix indicating how climate change mitigation and adaptation Rio markers determine the type of support (mitigation, adaptation or cross-cutting) and the consequential application of Rio marker coefficients

Rio marker	Mitigation 0	Mitigation 1	Mitigation 2
Adaptation 0	Not relevant	Mitigation: 50% of finance	Mitigation: 100% of finance
Adaptation 1	Adaptation: 50% of finance	Cross-cutting: 50% of finance	Mitigation: 100% of finance
Adaptation 2	Adaptation: 100% of finance	Adaptation: 100% of finance	Cross-cutting: 100% of finance

For Danish support provided through multi-project mechanisms and pooled support to Danish NGOs, Denmark is using a granular approach to assessing the climate-relevant share of these commitments based on detailed analyses of the specific commitments and further information provided by the recipient organisations.

This more granluar approach is for example applied to support to development research activities and capacity building managed through the Danida Fellowship Centre; the strategic partnership agreements with Danish/International NGOs; and to the re-granting mechanisms for partnerships with small and medium sized Danish NGOs collaboration with developing countries. Climate-specific finance included in the BTR reporting channeled through these instruments and framework agreements is based on those organisations reporting back to the Danish MFA based on their actual climate projects implemented using financing sourced from the Danish MFA.

The Danish MFA has external quality assurance of Rio markers in the project portfolio, which is undertaken before submission to the OECD CRS database and use for reporting to the UNFCCC. Furthermore, the MFA has internally made an effort to further develop its methods of reporting to the UNFCCC, including by addressing the comments and recommendations by the UNFCCC Expert Review Team.

4.2.3 Multilateral climate finance

Multilateral climate finance is divided in the CTF into core finance and climate-specific finance. Core finance is identified by Denmark as funding to select institutions that are marked as “core contributions to multilateral institutions" in statistical reporting to OECD DAC’s CRS.

The climate-specific finance channelled through multilateral organisations, as included in CTF Table III.2 represents one of two things: (1) earmarked, multi-bilateral finance which has been allocated a Rio marker; and (2) core finance to a multilateral organisation deemed as entirely or partially focused on climate change, such as the global funds with positive imputed multilateral shares, as calculated by the OECD[67].

The funding to multilateral institutions included in CTF Table III.2 are the actual amounts of disbursed annual contributions to those organisations.

Denmark has included in its reporting the imputed value of climate-specific finance from core contributions to multilateral organisations. The percentage of climate finance is based on OECDs table for imputed climate shares of multilateral core funding.

Denmark’s reporting to UNFCCC does not include any calculations assessing the climate-relevant finance outflows to developing countries resulting from the Danish core contributions to multilateral organisations and development banks.

Denmark values the annual Joint Report on Multilateral Development Banks' Climate Finance, produced using a commonly agreed methodology among the multilateral development banks (MDBs)[68]. Likewise, Denmark values the reports from OECD on Climate Finance Provided and Mobilised by Developed Countries that estimates the climate finance provided and mobilised by MDBs that can be attributed to developed countries[69]. These reports are essential for the monitoring of trends and progress in mobilising finance for climate action and investments in developing countries.

4.2.4 Private climate finance

Denmark’s Investment Fund for Developing Countries (IFU) works on mobilising private capital for impact investments in developing countries. The active portfolio covering all funds contains 166 project companies. In 2022, IFU and IFU managed funds invested DKK 1.5 billion and mobilised additional private capital of DKK 1.4 billion.

Section 4.4 contains a table with mobilised private sector climate investments through IFU in 2021 and 2022.

IFU provides equity capital for climate-relevant investments in developing countries using its own resources, while also managing a number of investment vehicles that involve private investors such the Danish SDG Investment Fund. The Danish SDG Investment Fund (I) is a public-private partnership, which includes the Danish State, IFU, institutional and private investors and pension funds. The total committed capital is DKK 4.86 billion, of which nearly DKK 3 billion was committed by Danish pension funds and private investors, while the remaining DKK 2 billion was committed by IFU, including DKK 100 million from the Danish MFA and a DKK 800 million loan from Denmark’s national bank, guaranteed by the Danish state. In 2022 IFU launched a pilot Development Guarantee Facility which can provide sovereign guarantees up to a total maximum of DKK 2 billion to test innovative approaches to mobilising finance.

In 2017, Danida Sustainable Infrastructure Finance (DSIF), previously known as Danida Business Finance (DBF), was relocated from the Danish MFA to IFU. DSIF provides and mobilises finance for sustainable infrastructure projects in developing countries. DSIF offers grants in combination with subsidised loans for public infrastructure projects in developing countries with incomes per capita below USD 3,995 (2020). The projects must contribute to sustainable development in the recipient country in line with the UN Sustainable Development Goals (SDG). Furthermore, Danida Green Business

[67] See “Imputed multilateral shares”: https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

[68] Available at: https://thedocs.worldbank.org/en/doc/9234bfc633439d0172f6a6eb8df1b881-0020012021/original/2020-Joint-MDB-report-on-climate-finance-Report-final-web.pdf

[69] Available at: https://www.oecd.org/env/climate-finance-provided-and-mobilised-by-developed-countries-aggregate-trends-updated-with-2019-data-03590fb7-en.htm

Partnerships (DGBP) - previously under the name Danida Market Development Partnerships (DMDP) - brings commercial and non-commercial actors together in partnerships to promote sustainable business, development and employment opportunities in developing countries, contributing to the SDGs. The change in name from DMDP to DGBP signifies a much stronger focus on climate and environment. A number of climate-related activities have been supported, in particular investments in renewable energy and the circular economy.

Danida has also supported 'Partnering for Green Growth and the Global Goals 2030' (P4G) which brings together businesses, governments, and civil society organizations in partnerships to develop and prove market-based green and inclusive solutions to deliver on the SDGs and the Paris Agreement. P4G commenced operations in January 2018. The World Resource Institute (WRI) hosts the Global Hub, which manages P4G. P4G accelerates partnerships in Colombia, Ethiopia, Indonesia, Kenya, South Africa and Vietnam.

Private climate finance mobilised through these instruments is not included in this submission or the CTF tables. Private finance mobilised by IFU or IFU managed funds is noted in a separate box in this narrative report as supplementary information.

4.2.5 Methodological differences from from BR4/BR5 to BTR1

The methodology used for calculating Danish climate finance for 2021 and 2022 is generally the same as the methodology used to produce Denmark's BR4 and BR5 submissions. For 2021 and 2022, Denmark has reported core funding to a number of institutions: the Nordic Development Fund (NDF), the Consultative Group on International Agricultural Research (CGIAR), and the European Development Fund (EDF).

Denmark has made additional efforts in 2021-2022 for more accurate reporting of climate finance associated with so-called "multi-project mechanisms", such as the Strategic Partnership Agreements (SPAs) between Denmark and Danish NGOs and funding to the Danida Fellowship Centre's research window (FFU). A training session was conducted in 2022 building the capacity of the relevant organisations in applying the rio markers on their activities and reporting on these annualy. This has allowed more granular accounting than before.

4.2.6 Final remarks

Denmark provides the information in CTF Tables III.1, III.2, and III.3 in Danish Kroner and USD. Denmark uses the standardized currency exchange rates published by the OECD DAC[70].

Information on individual Danish development projects is publicly available in Danida's OpenAid database (http://openaid.um.dk), where updated disbursements to individual projects and total sums for disbursements to countries, sectors and implementing organisations can be found.

As an EU Member State, Denmark also reported under the annual EU Monitoring Mechanism (MMR), and since 2022 under the EU Governance Regulation (GR). In doing so, Denmark provides annual reporting of information on financial support, capacity building and technology transfer activities to developing countries based on the best available data. To the extent possible, Denmark follows the recommendations made by the European Commission to allow comparable reporting among Member States of the EU. The data used for this BTR submission is the same as for the Danish MMR2021 and GR2022.

[70] Available at: https://data.oecd.org/conversion/exchange-rates.htm

4.3 Information on financial support provided and mobilized under Article 9 of the Paris Agreement

Overview of Danish climate finance from 2013 to 2022
This section presents an overview of Danish climate finance reported to the UNFCCC. The overview includes a breakdown by implementation channel (multilateral, bilateral, etc.), an overview of recipient countries, mitigation and adaptation shares, the use of bilateral and multilateral channels, as well as support to LDCs.

Table 4.3(1) provides an aggregated overview of Danish climate finance for 2021 and 2022. For the first time, Denmark has included imputed shares of contributions to multilateral institutions. The table presents two sets of aggregates: one that includes only climate-specific finance to multilateral institutions with 100% climate specificity, and another that also includes climate-specific finance to institutions with climate specificity greater than 0% but less than 100%. This dual presentation ensures that the aggregates for institutions with 100% climate specificity remain comparable with figures reported in BR1 through BR5.

Further, Table 4.3(1) includes an overview of mobilised private finance for the years 2021 and 2022 through IFU (See chapter 4.4 for more detail on mobilised private finance).

Table 4.3(1) Danish climate finance BTR1 (2021-2022) including imputed shares

Danish climate finance		Climate finance	
(DKK Millions)		2021	2022
Commitments	Bilateral finance	1,434	1,318
	Multi-bilateral finance	713	486
	100 % climate-specific multilateral finance	724	165
	Total climate-specific finance, excluding non-100% climate-specific multilateral finance	**2,871**	**1,969**
	Non-100 % climate-specific multilateral finance (imputed)	301	259
	Total climate-specific finance, including non-100% climate-specific multilateral finance	**3,172**	**2,228**
Disbursements	Bilateral finance	1,040	1,351
	Multi-bilateral finance	814	573
	100 % climate-specific multilateral finance	726	167
	Total climate-specific finance, excluding non-100% climate-specific multilateral finance	**2,581**	**2,091**
	Non-100 % climate-specific multilateral finance (imputed)	300	259
	Total climate-specific finance, including non-100% climate-specific multilateral finance	**2,881**	**2,350**
Mobilised private finance	IFU public finance	216	562
	Private investments admistered by IFU	197	310
	Private finance attributed to IFU	1,736	1,051
	Total mobilised and administered finance	**2,149**	**1,923**
Total	**Total disbursed climate-specific, mobilised, and administered finance**	**5,030**	**4,273**

Table 4.3(2) contains an overview of Danish climate-specific finance between 2013 and 2022 for both disbursements and commitments. Denmark's core contributions to multilateral institutions are reported separately under the 'Core/general' column of CTF Tables III.3, as required by the UNFCCC (see Annex E1). Contributions to multilateral institutions with climate-specificities less than 100% are not included in these figures.

Table 4.3(2) shows how Danish climate finance disbursements and commitments have been distributed between mitigation, adaptation and cross-cutting objectives.

In Denmark's original BR2 submission (covering the years 2013 and 2014), climate finance to organisations like the GCF, LDCF, and GGGI was reported as core finance, and not as climate-specific finance despite the climate-relevance of these organisations. In Denmark's BR3, BR4 and BR5 submissions, finance provided to these organisations was included in CTFs as climate-specific finance. The figures presented in Table VI.1 therefore differ slightly to those included in Denmark's original BR2 submission, due to the inclusion of finances provided to the GCF, LDCF and GGGI.

Table 4.3(2): Danish climate finance BR2-BR5 (2013-2020) and BTR1 (2021-2022).

Danish climate-specific finance (DKK Millions)		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Commitments	Mitigation	229	471	192	259	376	397	1,015	567	1,100	495
	Adaptation	81	0	89	394	581	462	613	811	942	893
	Cross-cutting	1,336	1,257	793	203	304	295	533	658	830	581
	Other	0	0	0	2	0	0	0	0	0	0
	Total climate-specific	**1,646**	**1,728**	**1,074**	**857**	**1,261**	**1,154**	**2,161**	**2,036**	**2,871**	**1,969**
Disbursements	Mitigation	392	492	296	346	414	587	883	535	949	730
	Adaptation	202	171	107	248	355	418	529	683	707	728
	Cross-cutting	665	788	762	691	583	470	432	540	925	634
	Other	33	33	43	7	0	0	0	0	0	0
	Total climate-specific	**1,292**	**1,484**	**1,208**	**1,293**	**1,352**	**1,475**	**1,844**	**1,758**	**2,581**	**2,091**

4.3.1 Danish climate finance reported 2013 to 2022 - disbursements

Figure 4.3(1) and Table 4.3(3) contains an overview of Danish climate finance between 2013 and 2022 for disbursements and commitments. Figures include Denmark's contributions of bilateral and multi-bilateral climate aid alongside core contributions to multilateral organisations that deliver 100% climate finance. The table includes the distribution between mitigation, adaptation and cross-cutting objectives in the period from 2013 to 2022.

FIGURE 4.3(1): Disbursements of climate-specific finance by Denmark between 2013 and 2022

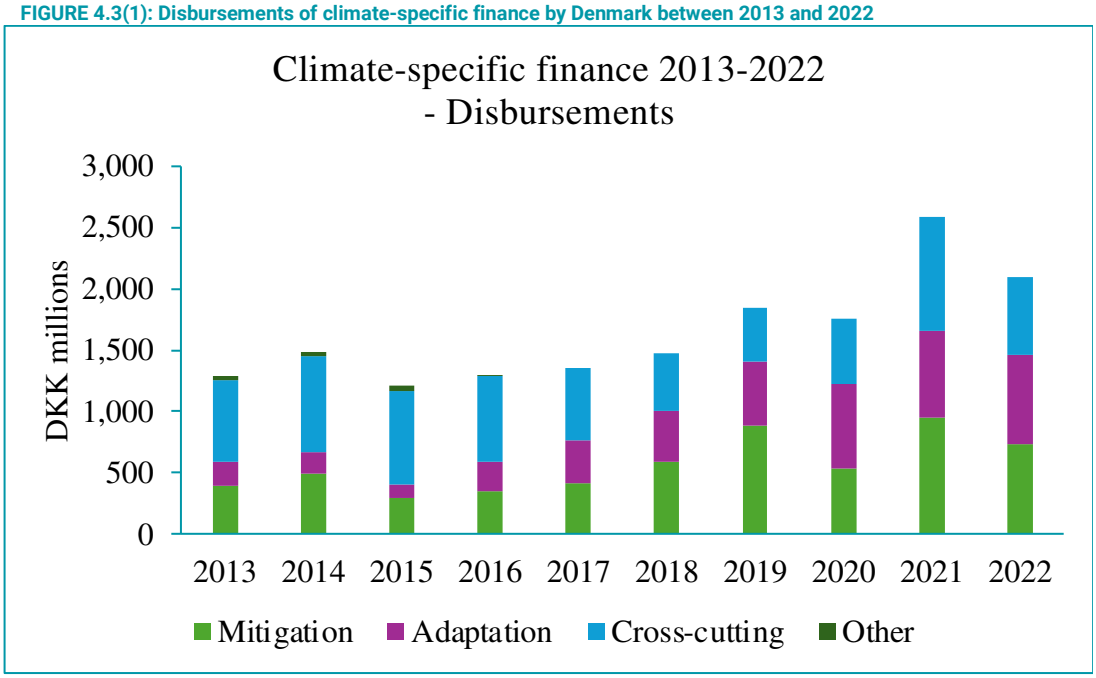


Table 4.3(3) shows how Danish climate finance commitments and disbursements are distributed between mitigation, adaptation and cross-cutting. The Danish government's target for 60% of climate finance to be adaptation was achieved for commitments in 2022. Cross-cutting finance is attributed equally to mitigation and adaptation support.

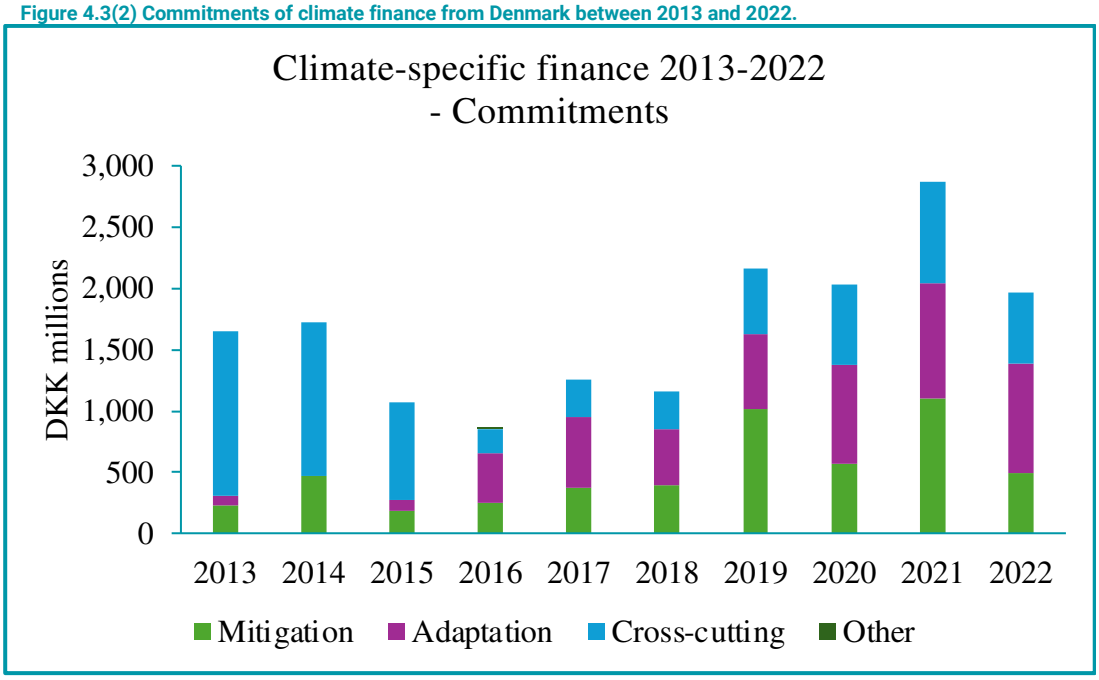
Table 4.3(3): Danish climate finance BR2-BR4 (2013-2020) and BTR1 (2021-2022) with the cross-cutting category equally split into mitigation and adaptation classifications.

Danish climate-specific finance (DKK Millions)		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Commitments	Mitigation	897	1,099	589	360	528	545	1,282	896	1,515	785
	(% share)	54%	64%	55%	42%	42%	47%	59%	44%	53%	40%
	Adaptation	749	629	486	495	733	610	880	1,140	1,357	1,184
	(% share)	46%	36%	45%	58%	58%	53%	41%	56%	47%	60%
	Other	0	0	0	2	0	0	0	0	0	0
	(% share)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total climate-specific	**1,646**	**1,728**	**1,074**	**857**	**1,261**	**1,154**	**2,161**	**2,036**	**2,871**	**1,969**
Disbursements	Mitigation	724	886	677	692	706	822	1,099	805	1,411	1,046
	(% share)	56%	60%	56%	54%	52%	56%	60%	46%	55%	50%
	Adaptation	535	565	487	594	647	653	745	953	1,169	1,045
	(% share)	41%	38%	40%	46%	48%	44%	40%	54%	45%	50%
	Other	33	33	43	7	0	0	0	0	0	0
	(% share)	3%	2%	4%	1%	0%	0%	0%	0%	0%	0%
	Total climate-specific	**1,292**	**1,484**	**1,208**	**1,293**	**1,352**	**1,475**	**1,844**	**1,758**	**2,581**	**2,091**

4.3.2 Danish Climate Finance Reported to the UNFCCC (2013 to 2022) - commitments

Figure 4.3(2) shows Danish climate finance commitments between 2013 and 2022.

Figure 4.3(2) Commitments of climate finance from Denmark between 2013 and 2022.



4.3.3 Imputed shares of multilateral core-funding

The OECD DAC annually compiles a list of multilateral institutions and their total climate-related development finance along with the imputed multilateral contribution of climate finance disaggregated into mitigation, adaptation, and cross-cutting types of support. The latest version of the list includes figures for 26 multilateral institutions.

For the BTR1, Denmark reports imputed multilateral climate finance not only for institutions with 100% climate-specific outflows but also for institutions with between 0% and 100% climate-specific outflows.

Table 4.3(4) shows Danish disbursements and commitments to multilateral institutions disaggregated into types of support.

Table 4.3(4) Commitments and disbursements of climate finance to multilateral institutions for 2021 and 2022 including imputed shares.

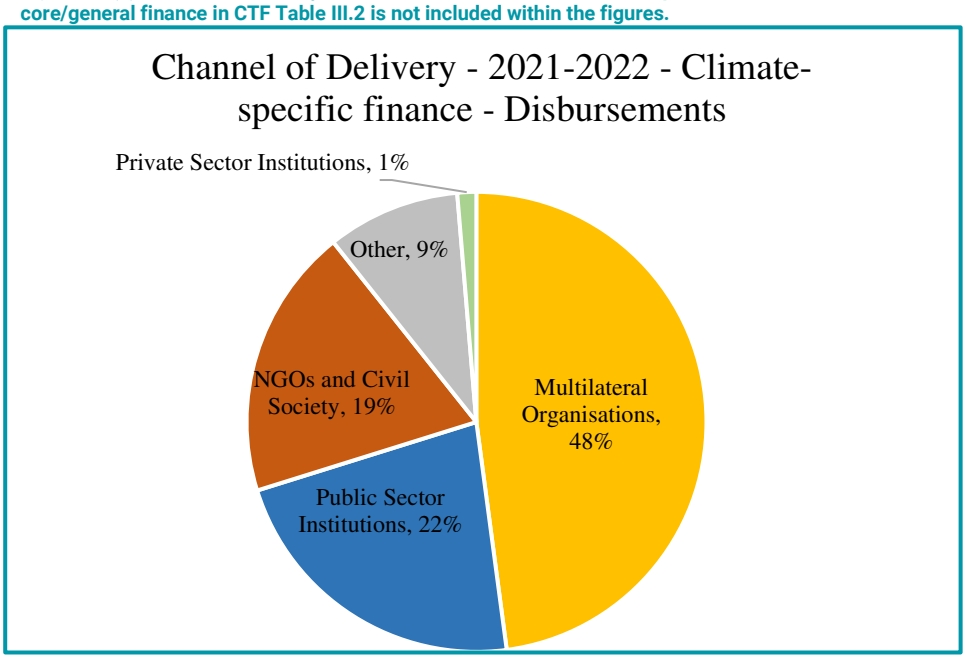
Danish climate-specific finance		100 % climate-specific institutions		Non-100 % climate-specific institutions		100 % & non-100 % climate-specific institutions	
(DKK Millions)		2021	2022	2021	2022	2021	2022
Commitments	Mitigation	290	0	121	104	411	104
	Adaptation	268	78	167	154	434	232
	Cross-cutting	167	87	13	1	180	88
	Total climate-specific	**724**	**165**	**301**	**259**	**1,025**	**424**
Disbursements	Mitigation	290	0	121	104	411	104
	Adaptation	268	78	166	154	434	232
	Cross-cutting	169	89	13	1	182	90
	Total climate-specific	**726**	**167**	**300**	**259**	**1,026**	**426**

4.3.4 Climate finance by channel of delivery

Figure 4.3(3) below presents the proportion of Denmark's climate finance being delivered through different partners, or "channels of delivery". The figure highlights the shares of climate finance being disbursed to developing countries through multilateral organisations, public sector institutions, NGOs and civil society organisations, private sector institutions, and through other channels. Figures exclude finance reported as core/general finance in Denmark's CTF tables.

48% of Denmark's climate finance was channelled through Multilateral institutions in 2021 and 2022. The proportion of Danish climate finance channelled through national public sector institutions, NGOs and civil society, and private sector institutions was 22%, 19% and 1%, respectively.

Figure 4.3(3): Channel of delivery of Danish disbursements of climate-specific finance from 2021-2022. Finance reported as core/general finance in CTF Table III.2 is not included within the figures.



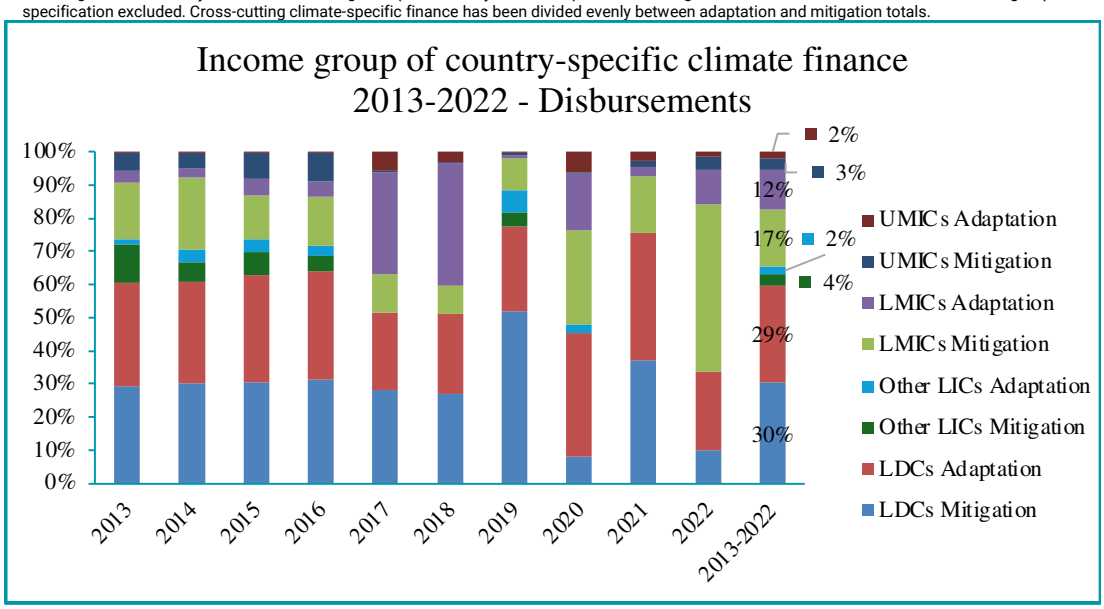
4.3.5 Breakdown by recipient income groups

Based on the activity-level information available in the OECD CRS, it is possible to categorise Danish climate-specific finance according to recipient country income groups. This is illustrated in Figure C, which shows how the Danish bilateral country- and climate-specific finance disbursed between 2013 and 2022 is distributed between recipient country income groups used by the OECD DAC (LDC: Least Developed Countries; Other LICs: Other Low Income Countries; LMICs: Lower Middle Income Countries; and UMICs: Upper Middle Income Countries).

Not all bilateral finance was allocated to specific countries however. Between 2013 and 2022, 52% was regional or without an income-group specification, and in the 2021-2022 period, 63% was unallocated. The figure excludes funding that is not allocated to a specific recipient country or identifiable income group, for example, finance directed towards a region, spent by means of framework agreements with NGOs or universities, or programmes and contributions to multilateral organisations which target multiple countries.

LDCs received 60% of the bilateral and multi-bilateral country-specific climate finance disbursed by Denmark between 2013 and 2022. Including unallocated finance, LDCs received 30% of bilateral and multi-bilateral climate finance in 2021 and 11% in 2022.

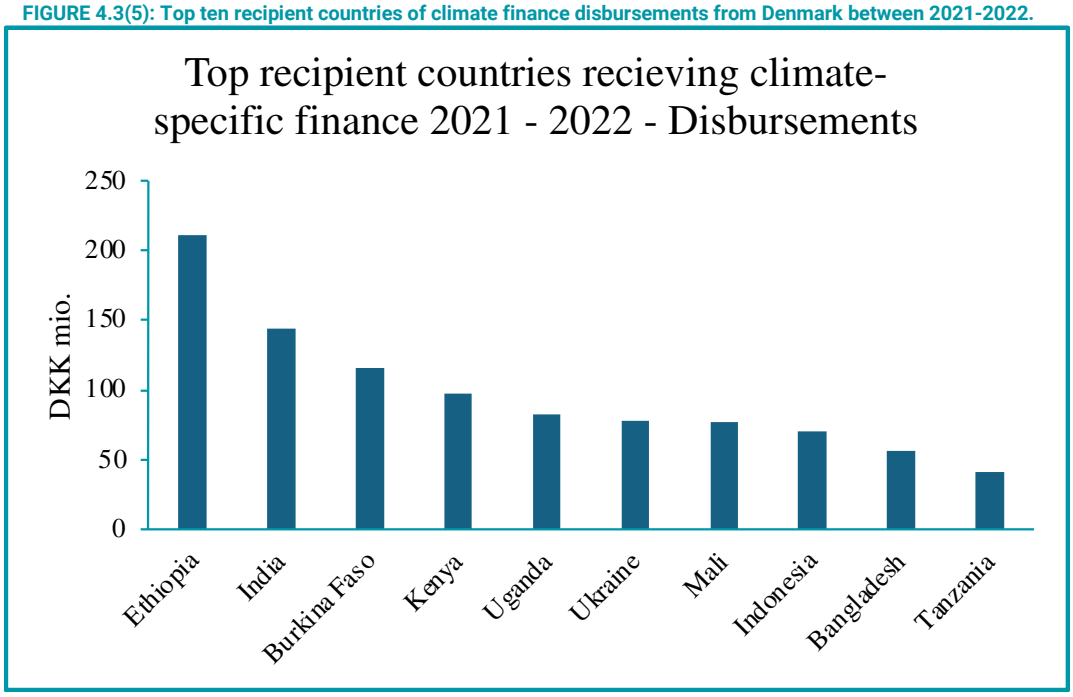
Figure 4.3(4): Recipient income groups of Danish bilateral climate-specific finance disbursements from 2013-2022.
Note: Figure includes only finance where a single recipient country has been specified, with regional finance and finance without an income group specification excluded. Cross-cutting climate-specific finance has been divided evenly between adaptation and mitigation totals.



4.3.6 Allocation of climate finance to Danida Priority Countries

Figure 4.3(5) below shows the 10 largest recipient countries of disbursements of Danish climate-specific finance between 2021 and 2022. The largest recipient, by a significant margin over the two years was Ethiopia. This is largely due to the Assela Wind Farm Project and contributions to Denmark's Ethiopia Country Programme 2018-2022.

FIGURE 4.3(5): Top ten recipient countries of climate finance disbursements from Denmark between 2021-2022.



4.3.7 Mobilised private sector climate investments through IFU

Denmark has established a number of new and innovative instruments to mobilise private finance for climate relevant investments in developing countries as shown in Figure 4.3(5). The main bilateral vehicle for these efforts has been the Investment Fund for Developing Countries (IFU: Investeringsfonden for Udviklingslande) and the various funds it manages.

Figure 4.3(5): Climate-relevant public investments made by IFU, amounts of climate-relevant private investments administered by IFU, and mobilised climate-relevant private investments: 2018-2022. IFU public finance, Private investments administered by IFU, and Private finance attributed to IFU sums to the total mobilised private finance.

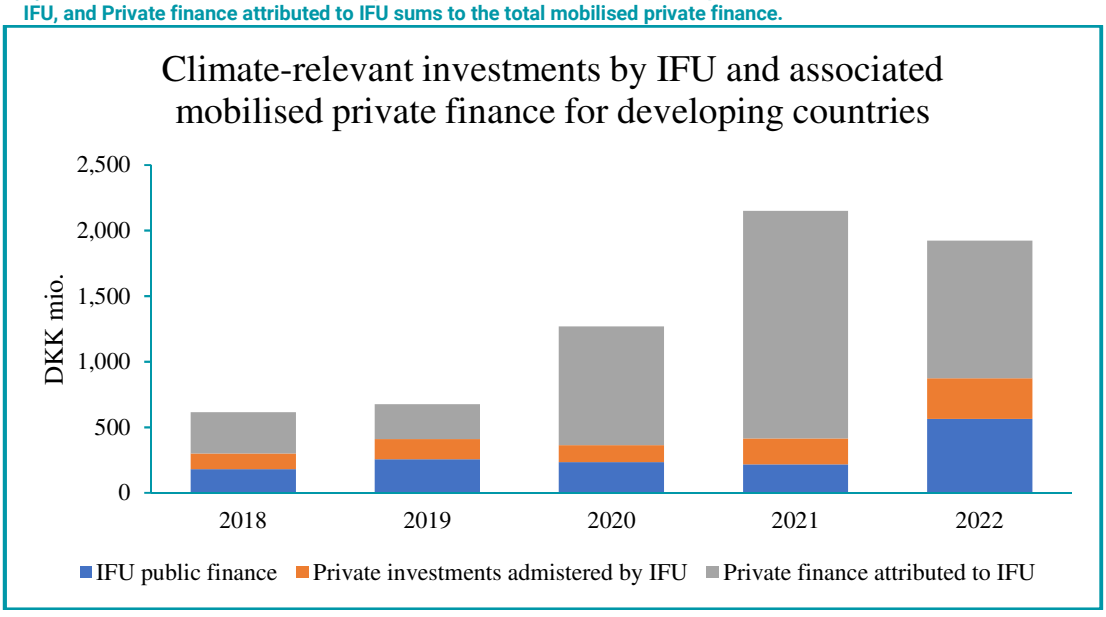


Table 4.3(5) below presents investments of climate-relevant public finance made by IFU and the Danish MFA from 2021 and 2022, alongside the amounts of private sector investments mobilised through the projects being co-financed. Both the mobilised finance, and the public finance used to mobilise that finance, are presented. DKK 2,149 million of climate-relevant private investments were mobilised in 2021 and DKK 1,923 million in 2022.

The SDG Fund was established in 2018 and received a total committed capital of DKK 4.86 billion, involving the Danish State and IFU (DKK 1.94 billion), and Danish pension funds and institutional and

private investors (DKK 2.92 billion). Alongside IFU, the 10 contributors to the Fund are: PKA, PensionDanmark, PFA, ATP, JØP/DIP, PenSam, Navest, SEB Life & Pension, Secure SDG Fund, and Chr. Augustinus Fabrikker Akts. The Fund is envisaged to promote investments of at least DKK 30 billion until 2030 and will form the primary vehicle for IFU's equity investment activities. The Fund is an innovative addition to how Denmark will contribute to increasing private investments in developing countries towards the achievement of the SDGs. It will target a number of strategic sectors, such as: renewable energy, agribusiness, infrastructure, including water and sanitation, industry and service as well as the financial sector.
The amounts of private finance mobilised have been calculated by IFU, who declare their commitments whilst calculating the level of private finance they have received from pension funds or private investors. Both the public climate-relevant investments made by IFU and the resultingly mobilised climate-relevant private investments are calculated using Denmark's Rio marker methodology.

Table 4.3(5): An overview of the climate-relevant projects, which Danish Investment Fund has committed to fund (2021- 2022).

Year	Extending Agency	Recipient Country	IFU public finance	Private investments admistered by IFU	Total mobilised and administered finance	Mitigation Rio marker	Adaptation Rio marker
			DKK millions	DKK millions	DKK millions		
2021	IFU	Malawi	85	0	146	2	0
2021	SDG	India	41	61	834	2	0
2021	SDG	India	89	133	1,161	2	0
2021	SDG	Pakistan	1	2	8	2	0
2022	IFU	Africa (regional)	54	0	103	1	0
2022	IFU	India	53	0	82	1	0
2022	SDG	Brasil	121	182	805	2	0
2022	SDG	India	41	61	193	1	0
2022	SDG	Ghana	43	64	347	2	0
2022	DCIF	Brasil	2	2	8	2	0
2022	IFU	Zambia	42	0	42	2	0
2022	IFU	Ecuador	53	0	144	1	0
2022	IFU	Türkiye	37	0	37	1	0
2022	IFU	China	17	0	36	2	0
2022	IFU	DAC - Developing countries	74	0	74	2	0
2022	IFU	DAC - Developing countries	25	0	51	1	0
Sub-total 2021			**216**	**197**	**2,149**		
Sub-total 2022			**562**	**310**	**1,923**		
Grand total			**778**	**507**	**4,071**		

4.4 Information on support for technology development and transfer provided under Article 10 of the Paris Agreement

4.4.1 Technology development and transfer

The Convention notes that all Parties shall promote and cooperate in the development and transfer of technologies that reduce emissions of GHGs. It also urges developed country Parties to promote,

facilitate and finance the transfer of, or access to, climate technologies to developing countries. Furthermore, the Paris Agreement refers to realizing technology development and transfer for improving resilience to climate change.

Technology development and transfer, as used here, encompasses both “hard” and "soft" technologies. "Hard" technologies include equipment to control, reduce or prevent anthropogenic emissions of greenhouse gases in the energy, transport, forestry, agriculture, and industry sectors, technologies to facilitate adaptation and enhanced resilience to climate impacts. “Soft” technologies include capacity-building activities (“know-how”), the provision of and access to information networks, training and research, of relevance to climate-relevant hard technologies.

Transfers of both hard and soft technologies are seen in Danish climate-relevant activities, alongside or in unison with support seeking to enhance and develop the endogenous technologies and capacities of non-Annex I countries. Examples of transfers can be seen in both adaptation and mitigation activities, provided, where appropriate, with the engagement of private-sector and CSO actors. The extent of this technology development and transfer and capacity building action is significant and integral to Danish development cooperation.

4.4.2 Tracking technology developments - and capacity-building

An overview of selected projects supported in 2021 and 2022, with technology development and transfer as well as capacity building are set out in CTF Tables 8 and 9. The projects outlined below are indicative examples taken from those tables, highlighting how Denmark is practicing an integrated approach to capacity building and technology transfer as part of its overall climate support portfolio, within both bilateral and multilateral assistance.

For the present reporting cycle, project documentation for all new Danish climate-relevant commitments in the years in 2021 and 2022 have been assessed for technology development and transfer and capacity building relevance. These assessments have been done in parallel with the existing Danish proces of external review of Rio marker allocations.

Regarding the assessment and marking process, Denmark reviews each project’s documentation. The methodology is used to determine whether technology development and transfer as well as capacity building elements are included in the project’s context, design, and result framework. Markers of “Yes” and “No” are assigned to each project to indicate one of the following for technology development and transfer as well as capacity building: a marker of “Yes” denotes that technology or capacity building are integrated into the project; a marker of “No” means neither technology development and transfer or capacity building are present in the project.

4.4.3 Examples of technology development in projects

Year 2021: Kenya bilateral programme - green, sustainable and inclusive growth with 60 million DKK.
Four components:
1) Micro Enterprises Support Programme Trust (MESPT): Greening the value chains. MESPT plays a critical role of enhancing financial inclusion to spur economic growth and implement programmes that are critical to food security, as well as promoting and supporting use of resource efficient, clean and climate sensitive technologies and tech solutions for use in the agriculture value chain and at household levels.
2) Word Bank: Environmental/Climate governance and
3) TradeMark East Africa (TMEA): Green regional trade and
4) Kenya Climate Innovation Center (KCIC): Supporting climate technologies and related innovative business models.

Year 2021: Enhanced Adaptation for Smallholder Agriculture Programme – ASAP+ (IFAD) with 100 million DKK.
The purpose is strengthened climate smart agriculture and natural resource management and governance in crisis-affected and at-risk areas and communities in reginal South of Sahara. Both capacity building and technology transfer are built in.
ASAP+ will focus on multi-benefit, community-driven approaches to effect change. This will include investments in climate services, natural resources management and governance, women’s empowerment, nature-based solutions, and carbon-sequestration.

Year 2021: Support to The Africa Commission's Energy Initiative (SEFA) with 100 million DKK.
The objective of SEFA is to contribute to universal access to sustainable, reliable, and affordable energy services and reduce GHG emissions stemming from the energy sector. This finance is entirely in support of "*Engagement 1: Technical assistance and concessional financing for Green Baseload, Green mini-grids and energy efficiency projects.*"

SEFA is financing through untied grants for technical assistance leading to investment activities in small/medium sustainable energy projects (encompassing Renewable Energy (RE) and Energy Efficiency (EE)) in Regional Member Countries, in order to stimulate local economic development and job creation.

Year 2022: Support to Africa Adaptation Acceleration Programme through Global Center on Adaptation with 35 million DKK.
Greater resilience of Africa's cities and its urban poor to climate change through a scale up in infrastructure investments that integrate climate adaptation and resilience based on effective tools and knowledge in combination with stronger advocacy for prioritizing climate adaptation internationally and in policies and plans of Africa's cities.

Year 2022: CISU Climate Change Adaptation Modality (CCAM) with 57,5 million DKK.
It is a grant mechanism which aims to support Danish CSOs in building resilience to climate change in poor and vulnerable communities. It will function as an integrated part of the CISU Civil Society Fund (CSF).
The CCAM shall strive to link poverty reduction and locally led climate change adaptation and help strengthen community participation in decision-making and evidence-based advocacy for pro-poor climate change adaptation solutions. Funded interventions need to be effective in reaching poor and climate vulnerable groups and contribute to climate resilience, reduced inequality, economic development, and promote alternative green jobs. CCAM focuses on capacity building initiatives to strengthen civil society capacity to work with climate adaptation through technical guidance and capacity building on climate change e.g., in the form of seminars, workshops and written material, including online learning sites made available to all partners.

Year 2022: Energy and Environment Partnership Africa Trust Fund (EEP Africa) with 50 million DKK.
The Danish contribution will support the work of EEP Africa and contribute to consolidating the fund as a catalytic financing facility. EEP Africa is a multi-donor fund hosted and managed by the Nordic Development Fund (NDF). Its overall objective is to enhance clean energy access, development and investment, with a focus on benefiting poor and underserved households and communities. EEP Africa invests in companies that are piloting or scaling clean energy technologies and business models primarily targeting poor communities in Africa. This is done by providing early stage financing and technical assistance to build sustainable businesses.

Year 2022: Support to Africa Adaptation Acceleration Programme through the Global Center on Adaptation with 35 million DKK.
The purpose is greater resilience of Africa's cities and its urban poor to climate change through a scale up in infrastructure investments that integrate climate adaptation and resilience based on effective technology, tools and knowledge in combination with stronger advocacy for prioritizing climate adaptation internationally and in policies and plans of Africa's cities.

4.5 Information on capacity-building support provided under Article 11 of the Paris Agreement

4.5.1 Capacity-building

Many Danish supported partnerships have integrated capacity building, capacity development and instutional strengthening into the project design. Capacity building can include various instruments to increase local and national capacities to implement adaptation and mitigation actions, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information.

Danish climate support seeks to include capacity building elements in its project design, with many projects and programmes also incorporating elements of technology transfer. As outlined in Denmark's strategy for development cooperation: "*Denmark will support the capacity of local civil society organisations and national and local authorities to deliver local responses to both immediate and long-term consequences of crises".* Furthermore, it also states: *"Through Danish support to innovation facilities in the multilateral organisations, we will encourage and support the promotion of work with*

technology and innovation to boost local and concrete results that can inspire new and larger-scale initiatives."

Danish support to capacity building includes a broad spectrum of activities and public, private and civil society partners. Denmark aims to ensure that capacity building support provided to developing countries reflects their endogenous priorities and needs through effective development cooperation and, where possible, with the use of prior engagement review and evaluation.

4.5.2 Tracking capacity-building - and technology developments

An overview of selected projects supported in 2021 and 2022, with technology development and transfer as well as capacity building are set out in CTF Table III.4 and Table III.5. The projects outlined below are indicative examples taken from those tables, highlighting how Denmark is practicing an integrated approach to capacity building and technology transfer as part of its overall climate support portfolio, within both bilateral and multilateral assistance.

For the present reporting cycle, project documentation for all new Danish climate-relevant commitments in the years in 2021 and 2022 have been assessed for technology development and transfer and capacity building relevance. These assessments have been done in parallel with the existing Danish proces of external review of Rio marker allocations.

Regarding the assessment and marking process, Denmark reviews each project's documentation. The methodology is used to determine whether technology development and transfer as well as capacity building elements are included in the project's context, design, and result framework. Markers of "Yes" and "No" are assigned to each project to indicate one of the following for technology development and transfer as well as capacity building: a marker of "Yes" denotes that technology or capacity building are integrated into the project; a marker of "No" means neither technology development and transfer or capacity building are present in the project.

4.5.3 Examples of capacity-building projects

Year 2021 (commitment): Danish Energy Agency Energy Partnership Programme (DEPP) III 2020-2025 with China, Vietnam, South Africa and Mexico with an overall budget of 156 million DKK.
The partnership countries seek to achieve low carbon development and continue upscaling and realising their NDC goals.

Programme interventions are delivered in four thematic areas where the Danish Energy Agency has extensive competence and a comparative advantage over most other leading energy authorities. The four thematic areas are: Long-term energy modelling and planning, enhanced framework conditions for renewable energy, integration of renewable energy and flexibility of the power sector and energy efficiency, including district heating. A focus on building capacities for energy modelling, planning and management, to enable low carbon development.

Year 2021: Danish support to clean cooking and access to water in Africa through the World Bank's multi-donor trust fund ESMAP, supported with 95 million DKK.
The project is delivered by ESMAP, the World Bank's energy programme, which aims to accelerate the energy transition and reduce poverty and boost growth through sustainable energy solutions and capacity building. It does so by developing and disseminating knowledge, enhancing tools for data-driven decision making, providing technical assistance to government institutions and organizing capacity building and peer-to-peer learning. The Danish support aims at stimulating green and climate resilient access to energy and water in Africa.

Year 2021: Denmark's support to the African Water Facility with DKK 199 million DKK commitment with the purpose: "Improve access to climate resilient safe water supply and sanitation services in the Sahel and Horn of Africa".
The project focuses on capacity building at the national level, aiming to achieve "*greater capacity to prepare bankable and climate resilient projects in* the future will be developed at national level".
Specifically the "long term improvement of water supply and sanitation and climate resilience through projects ready for large scale financing".

Year 2021: The Consultative Research Committee for Development Research (FFU) Windows 1 and 2 with 196 million DKK
Development research projects undertaken in selected countries and thematic focus areas are for Windows 1 projects:
Sustainable development and climate change. An example is the four-year research programme (2021-2025) Governing Adaptation Finance (GAP) that is involving Kenyatta university in Kenya and Dar es Salaam university and Danish DIIS.

Furthermore, for Windows 2 projects:
Renewable energy; Environment, including manufacturing, urban development and waste; Water resources, including urban water; Food quality, including food safety. As such, the projects aim to strengthen capacities for research at smaller and younger universities in fragile settings and regions important for overall economic growth, natural resource management, improved governance and peace.

Year 2021: 100 million DKK contribution to South of Sahara, regional.
Enhanced Adaptation for Smallholder Agriculture Programme – ASAP+ (IFAD). The project will strengthen the capacity of small-holder farmers to undertake climate smart agriculture and natural resource management and governance in crisis-affected areas.

The main driving force of ASAP+ is to bring climate financing to agricultural development projects. ASAP+ will focus on multi-benefit, community-driven approaches to effect change. This will include investments in climate services, natural resources management and governance, women's empowerment, nature-based solutions, and carbon-sequestration. The funding prioritises those where institutional capacity can be built. The building of adaptive capacity within communities is a prominent intention.

Year 2022: 250 million DKK contribution to UNCDF Local Climate Adaptive Living Facility.
A country-owned initiative aimed at promoting green and climate–resilient communities and local economies by establishing a standard, internationally recognized country-based mechanism.
LoCAL combines performance-based climate resilience grants with technical and capacity-building support of local authorities and communities. The Danish support will contribute to supporting countries in establishing their LoCAL mechanisms with a focus on key climate sensitive sectors such as agriculture and water, integrated with nature-based solutions. It will further focus on partner countries of Denmark like Somalia and Uganda while offering support to a larger group of African countries from various parts of the continent.

Year 2022: South of Sahara, regional: CCDMP 2022-2025: SNV - Programme Agroalimentaire pour la Résilience Intégrée et le Développement Économique au Sahel (Pro-ARIDES) with 40 million DKK through the Netherlands Development Organisation promoting capacity building.
The overall objective of this programme is to improve the resilience of Sahelian populations against the cumulative and cascading impact of climate-induced shocks and stressors, including violent conflicts, while supporting social cohesion and local governance systems through sustainable use of and equitable access to natural resources.

Year 2022: UN Environment Programme Copenhagen Climate Centre (UNEP-CCC) with 68 million DKK.
The objective for the UNEP-CCC is that the Centre provides scientific analysis, knowledge, and capacity building for developing countries that allow them to pursue low-emission, climate-resilient pathways for sustainable development and global climate action. Quoting Outcome 1B: *Countries and stakeholders have increased capacity, finance and access to technologies to de-liver on the adaptation and mitigation goals of the Paris Agreement.*

Year 2022: UNEP-DHI Centre with 60 million DKK.
The programme is phase six of Danish support to the UNEP-DHI Centre that is an international platform for capacity, knowledge, dialogue and action with and within countries on how to strengthen water resource management across sectors and stakeholders. Supported country partners are implementing sustainable climate adaptation, nature management and pollution reduction actions based on improved water resources management.
Capacity building is a key aspect of UNEP-DHI centre's work: "*Open online capacity building training courses and other sensitization and guidance products. Open online technical tools and to support issue sensitization, quantification and decision making*".

Year 2022: DFC Fellowships 2022 with 60 million DKK. The fellowship courses provide training and capacity for Danish funded partners, who are assessed to have potential and competences to contribute to the development and climate change interventions in their home countries. The DFC courses are capacity building in nature, climate change is a mainstreamed theme across the portfolio of courses. Adaptation and mitigation with markers 1.

5 Any other information the Party considers relevant to the achievement of the objective of the Paris Agreement, and suitable for inclusion in its biennial transparency report

5.1 GREENLAND

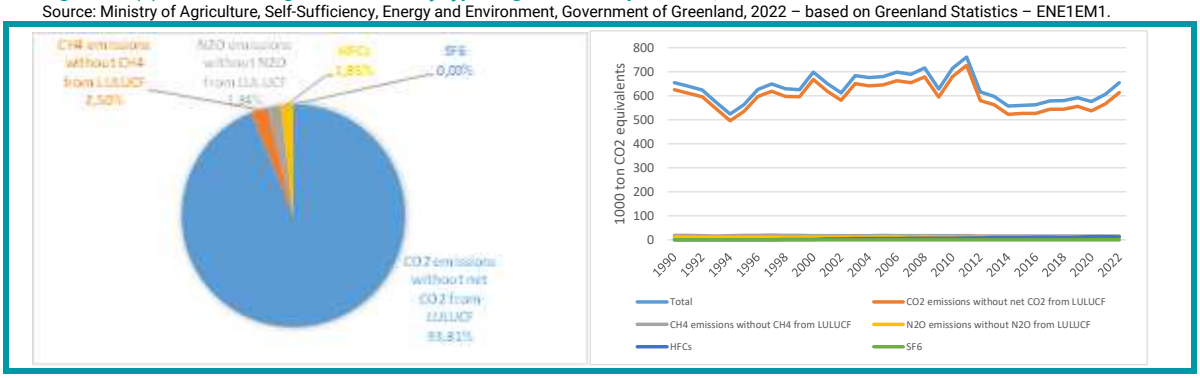
5.1.1 Greenhouse gas inventory information

In 2022, Greenland's total emission of greenhouse gases excluding LULUCF was 654 kt CO_2e, and 655 kt CO_2e including LULUCF.

Figure 5.1(1) illustrate the total greenhouse gas emissions in CO_2 equivalents from 1990 to 2022. The emissions have not been corrected for temperature variations[71]. Since 1990 there have been a decrease in total emissions by 2 % with and without emissions from LULUCF.

CO_2 is the most important greenhouse gas. In 2022, CO_2 contributed to the total emission in CO_2 equivalent excluding LULUCF with 93,8 %, followed by CH_4 with 2.5 %, N_2O with 1.8 % and F-gases (HFCs and SF_6) with 1.9 %. Since 1990, the share has increased for F-gases, and decreased for CO_2 and N_2O, and been somewhat stable for CH_4. Greenland has no consumption of PFC.

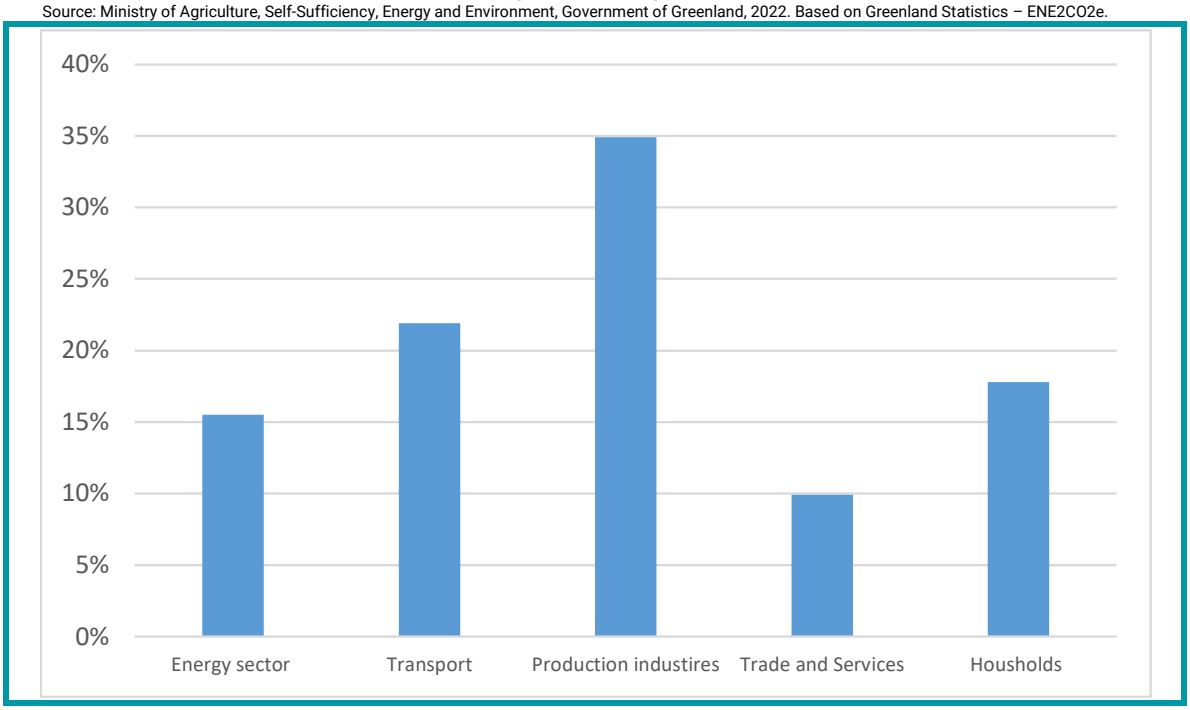
Figure 5.1(1): Greenhouse gas emissions by type of gas in CO_2 equivalents, distribution in 2022 and time series 1990 - 2022.
Source: Ministry of Agriculture, Self-Sufficiency, Energy and Environment, Government of Greenland, 2022 – based on Greenland Statistics – ENE1EM1.



Emissions from energy use amounts to around 94 pct. of total emissions. Most of these are emitted in the production sector or in the transport sector with respectively 35 % and 22 %, cf. Figure 5.1(2). In the productions sector the main emitter is the fishing industry. Given the unique geography in Greenland, the emissions from the transport sector separated fairly even between road (40 %), sea (23 %), and air (37 %) transport.

[71] The energy demand in Greenland is somewhat sensitive to yearly weather fluctuations. Therefore, Greenland Statistics also report energy statistics that takes the weather fluctuations into account.

Figure 5.1(2): Greenhouse gas emissions from energy use in 2022 by sector.
Source: Ministry of Agriculture, Self-Sufficiency, Energy and Environment, Government of Greenland, 2022. Based on Greenland Statistics – ENE2CO2e.



5.1.2 Climate targets and progress – Forecast of expected emissions

On July 2nd, 2024, Greenland entered the Paris Agreement, when the Kingdom of Denmark notified the UN Secretary General it had decided to withdraw the declaration, made upon approval, regarding the territorial exclusion for the Paris Agreement in respect of Greenland. The notification was the culmination of a political process in the Parliament of Greenland, Inatsisartut, to enter the Paris agreement which started in 2021, when the Greenlandic Premier announced the Government of Greenland's intent to enter the agreement.

The Government of Greenland enters the Paris Agreement as a part of the Kingdom of Denmark, and without submitting a nationally determined contribution (NDC). Following the ratification, Greenland stands before a process of developing a national climate strategy, which will include national climate goals in accordance with the Paris Agreement and be the foundation of the Greenlandic NDC. The Government of Greenland has developed a pioneering stakeholder engagement model, to secure the development of a climate strategy based on a democratic, inclusive debate informed by conventional science as well as indigenous knowledge. The strategy is expected to be finished in 2027, and will lay the foundation of a successive Nationally Determined Contribution (NDC), containing climate goals of the Greenlandic economy. The Government of Greenland will thus be able to submit their nationally determined contribution to the Paris Agreement for the next round of NDC's beginning from 2030.

Since no targets in the moment have been decided, no numerical forecast of expected emissions have been conducted. It is the goal of the Government of Greenland to rectify that shortcoming in the future.

Greenland is though likely to experience industrial growth over the coming years, which will impact future emission levels. Possible sources of new emissions include general industrial developments and further growth in the mining industry with the establishment of new mines. Several mining exploration projects are ongoing, however the projected emissions related to these projects are subject to a significant degree of uncertainty and future scenarios have therefore not been predicted.

To meet increased energy demands from mining and other industries, Greenland plans to expand existing hydropower plants and build new ones. This is in line with the last decades where it has been a consistent political priority to expand the use of renewable energy and in 2022 approximately 83 % of the public electricity supplied by the national utilty company, Nukissiorfiit, were based on hydropower.[72]

[72] Greenland Statistics – Energiforbrug 2022: Energiforbrug 2022 (stat.gl)

In total around 17 % of the total energy supply was covered by renewabels in 2022 where hydropower is predominant.[73]

Political status
Greenland is a self-governing, autonomous country within the Kingdom of Denmark. 90 % of the population are indigenous Inuit. The system of governance is parliamentary democracy. The colonial history of Greenland began with the Norwegian priest Hans Egede who arrived in 1721 and established missions various places in Greenland. It remained a colony until 1953, when Denmark unilaterally changed the status of Greenland from being a colony to a constituency in the Danish Kingdom. This development of administrative status marked the beginning of a new societal development in Greenland. Until 1979 the Greenlanders pursued to obtain more autonomy. This practice was intensified in the 1970s and led to the introduction of Greenlandic Home Rule in 1979. With the transition to Home Rule, Greenland established its own government, and parliament entitled to legislate and manage many parts of the administration.

On 21 June 2009, the Act on Greenland Self-Government came into force. The Act grants Greenland more autonomy and recognises the Greenlandic people as a people pursuant to international law with the right to self-determination. It also establishes *Kalaallisut*, the Inuit language spoken in Greenland, as the official language. In accordance with Chapter 8, §21 of the Self-Government Act, the people of Greenland can become independent by a referendum in Greenland, when they shall so decide. With the Self-Government Act, Greenland is still within the Realm and shares some fields of responsibility with Denmark and the Faroe Islands, i.e. the Constitution, franchise and the eligibility for election, citizenship and central institutions like the National Bank. Greenlandic authorities today manage most domestic affairs, legislation and have full financial responsibility in the acquired areas, including areas such as health, fisheries, education, science and research, environment and climate, taxation, mining and natural resources, infrastructure, trade, spatial planning, social affairs and housing to mention some. Responsibility for the Supreme Court, foreign affairs, defence and security policy as well as exchange rate and monetary policy fall within the jurisdiction of the central authorities of the Realm, however, as stipulated in the Self-government Act, Greenland may act in international affairs on areas of own competence and where not applicable, the Governments of Denmark and Greenland shall cooperate with a view to safeguarding the interests of Greenland as well as the general interests of the Kingdom of Denmark. Ultimately it is a political ambition to achieve independence from Denmark.

5.2 FAROE ISLAND

5.2.1 Greenhouse gas inventory information

In 2022, the total emission of greenhouse gases in the Faroe Islands, including LULUCF was 1,156 kt CO_2e, and 1,121 kt CO_2e excluding LULUCF.

The main part, 82 % of the emissions is from the fuel consumption in the Energy sector. Figure 5.2(1) shows the estimated total greenhouse gas emissions in CO_2 equivalents from 1990 to 2022. The total greenhouse gas emission in CO_2 equivalents has increased by 45 % from 1990 to 2022.

[73] Greenland Statistics – EN6KEY

Figur 5.2(1) Greenhouse gas emissions in CO2 equivalents distributed on main sectors for 2022 and time series for 1990 to 2022.

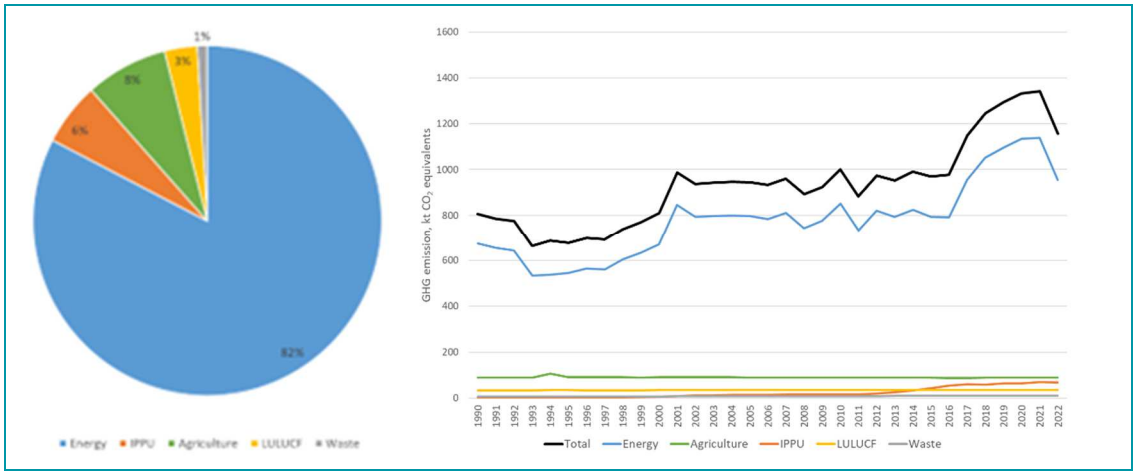


Figure 5.2(2) shows the composition of greenhouse gas emissions (CO_2, N_2O, CH_4 and F-gases) in 2022, calculated in GWP values. CO_2 is the most important greenhouse gas contributing with 85 %, followed by F-gases (HFCs and SF_6) with 6 %, N_2O with 6 % and CH_4 with 3 %. The Faroe Islands has no consumption of PFC.

Figure 5.2(2) Emissions of GHG in CO2 equivalents in 2022, distributed on type of gas.

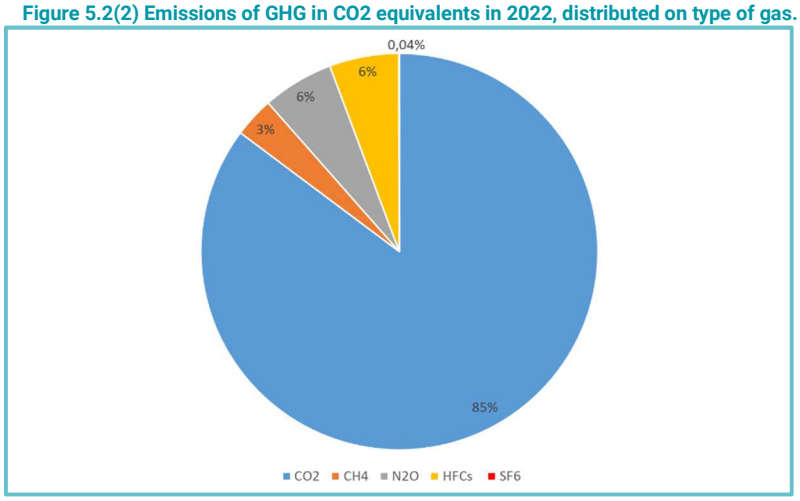


Figure 5.2(3) shows the total emissions of greenhouse gases and the emission of CO_2, N_2O, CH_4 and F-gases (in CO_2e) in the period 1990-2022. In general, the total emission of greenhouse gases on the Faroe Islands were relative stabile from 2001 until 2016, from around 900 – 1,000 kt CO_2e pr. year. A significant and steep rise in the emission was seen in 2017 and in the following three years, increasing the emissions to more than 1,3 kt CO_2 equivalents in 2020 as well in 2021. In 2022 a very significant decrease was in the total emissions. In 2022, the total emission was 14 % lower than the year before.

Figure 5.2(3) GHG emission by gas in CO2 equivalents, time series 1990-2022.

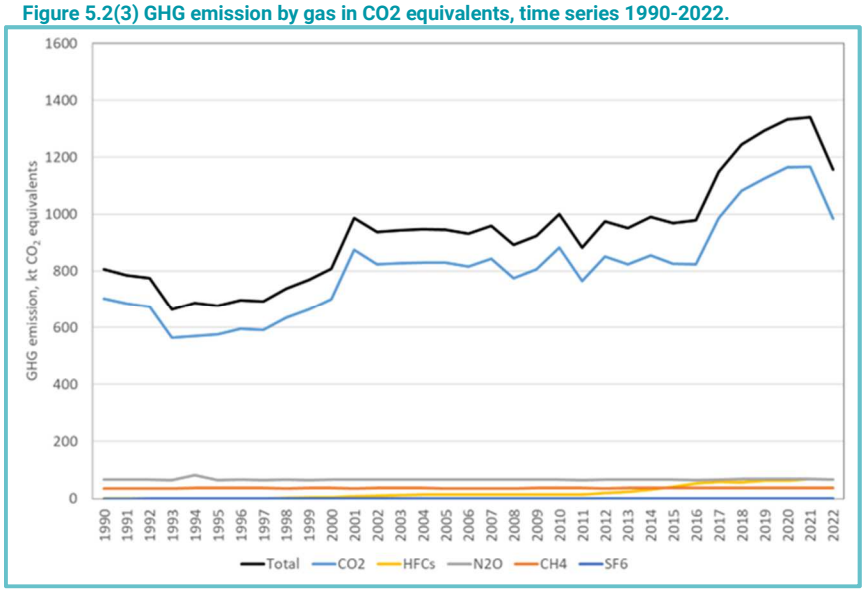
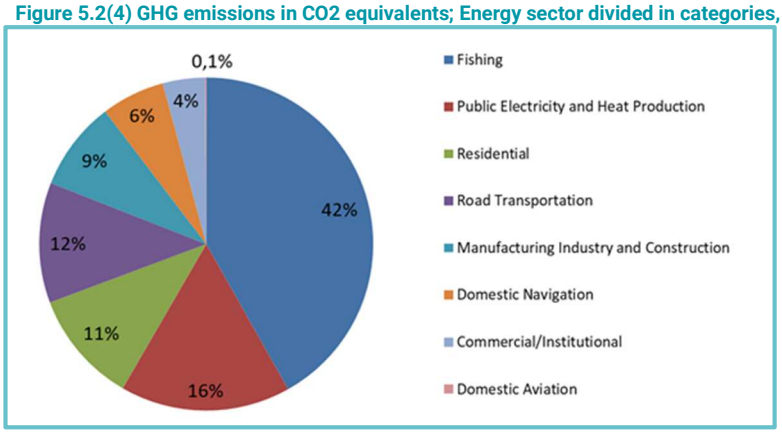


Figure 5.2(4) shows how the emission of GHG in 2022 was distributed between groups of fuel users. Fishing vessels, Public Electricity and Heat Production, Residential and Road transportation had 42 %, 16 %,11 % and 12 %, respectively, of the emissions in the Energy sector in 2022.

Waste Incineration is included under Public Electricity and Heat Production, comprising 10 % of the total emissions in the category in 2022.

Figure 5.2(4) GHG emissions in CO2 equivalents; Energy sector divided in categories, 2022.



5.2.2 Climate targets and progress

The Climate Convention was ratified by the Kingdom of Denmark and adopted by the Faroese Parliament. The Faroese Government decided in 2016 to become a party to the Paris Agreement.

The most recent Climate and Energy Policy for the Faroe Islands was adopted by The Faroese Parliament in May 2022. The Climate and Energy Policy is set out for a 10-year period and contains 23 time-fixed initiatives to reduce the national emission of greenhouse gasses with approximately 30 percent by 2032. According to the implementation plan, the 23 initiatives shall be implemented in the year of 2023, 2024 and 2025 in order to be effective by 2032.

As examples of already implemented initiatives one can mention

- ban on oil boilers as heating source in new buildings,
- building regulations with focus on climate targets,
- the establishment of independent energy advice regarding green transition,
- phasing out the use of high-GWP greenhouse gases (F-gases) according to the Kigali-amendment to the Montreal Protocol,
- reduced taxes on electric cars and electric heat pumps,
- implementing the IMO GHG-strategy,
- aiming for energy-efficient fishing ships,
- onshore electricity supply for ships.

In addition, a new green energy development plan has been adopted in 2024 to meet the ambitious target of nearly 100 percent renewables in onshore electricity production by 2030.

The next phase of the Faroese Climate Policy will focus on enhancing the emission reduction target and to focus on all elements regarding green transition of the blue economy. The fact is, that nearly half of the GHG emissions of the Faroe Islands stem from national and foreign fishing vessels fishing in the vast fishing territory surrounding the Faroes. Fisheries is also, alongside marine salmon farming, the cornerstone of Faroese economy. Thus, the long-lasting challenge is to ensure a sustainable green transition in the blue sector.

National Determined Contribution of the Faroe Islands

With the new Climate and Energy Policy in place as well as a green energy development plan that needs to be implemented by 2030, the Faroe Islands have adopted an ambitious emission reduction target of at least 30 percent by 2032 with 2010 as base year. This corresponds to around 525,000 tonnes of CO_2 equivalents. The target has been endorsed by Government and Parliament but needs to be prepared as a formal national NDC.

The process of preparing the formal notification of the Faroese NDC to UNFCCC has not started yet.

The aim is to communicate a formal NDC by the end of 2027 or medio 2028.

Annexes

Annex A: Information in relation to the EU NDC

Annex B: Information on policies and measures

Annex C: Information on greenhouse gas emission inventories

Annex D: Information on greenhouse gas emission projections

Annex E: Information on support

Danish Ministry of Climate,
Energy and Utilities

Annex A Information in relation to the EU NDC – i.e. common information for the EU BTR and its Member States' BTRs

This annex contains the following information:

Annex A1: The common tabular format on information necessary to track progress (CTF Table "Appendix" and Tables 1-4).

[CTF Table "Appendix"] Description of the NDC under Article 4 of the Paris Agreement, including updates

[CTF Table 1] Structured summary: Description of the selected indicator

[CTF Table 2] Structured summary: Definitions needed to understand NDC

[CTF Table 3] Structured summary: Methodologies and accounting approaches – consistency with Article 4, paragraphs 13 and 14, of the Paris Agreement and with decision 4/CMA.1

[CTF Table 4] Structured summary: Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement

Annex A2: Methodology applied for the identification of GHG emissions from international aviation and navigation in the scope of the EU NDC

Annex A1 The common tabular format on information necessary to track progress (CTF table "Appendix" and Tables 1-4).

Table "Appendix". Description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates[a]

Description	
Target(s) and description, including target type(s), as applicable[b, c]	Economy-wide net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. The term 'domestic' means without the use of international credits. Target type: Economy-wide absolute emission reduction.
Target year(s) or period(s), and whether they are single-year or multi-year target(s), as applicable	Single year target, 2030.
Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s), as applicable	Base year: 1990. Net greenhouse gas emissions level in 1990: 4,699,405 kt CO_2eq.
Time frame(s) and/or periods for implementation, as applicable	2021-2030
Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases, as applicable	Geographical scope: EU Member States (Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden) including EU outermost regions (Guadeloupe, French Guiana, Martinique, Mayotte, Reunion, Saint Martin (France), Canary Islands (Spain), Azores and Madeira (Portugal)). Sectors covered, as contained in Annex I to decision 5/CMA.3: Energy Industrial processes and product use Agriculture Land Use, Land Use Change and Forestry (LULUCF) Waste International Aviation: Emissions from civil aviation activities as set out for 2030 in Annex I to the EU ETS Directive are included only in respect of CO_2 emissions from flights subject to effective carbon pricing through the EU ETS. With respect to the geographical scope of the NDC these comprise emissions in 2024-26 from flights between the EU Member States and departing flights to Norway, Iceland, Switzerland and United Kingdom. International Navigation: Waterborne navigation is included in respect of CO2, methane (CH_4) and nitrous Oxide (N_2O) emissions from maritime transport voyages between the EU Member States. Gases: Carbon Dioxide (CO_2) Methane (CH_4) Nitrous Oxide (N_2O) Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs) Sulphur hexafluoride (SF_6) Nitrogen trifluoride (NF_3) The included LULUCF categories and pools are as defined in decision 5/CMA.3.

Intention to use cooperative approaches that involve the use of ITMOs under Article 6 towards NDCs under Article 4 of the Paris Agreement, as applicable	The EU's at least 55% net reduction target by 2030 is to be achieved through domestic measures only, without contribution from international credits. The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA.
Any updates or clarifications of previously reported information, as applicable[d]	The information on the NDC scope contains clarifications/further details compared to the information provided in the updated NDC of the EU.

Note: This table is to be used by Parties on a voluntary basis.

[a] Each Party shall provide a description of its NDC under Article 4, against which progress will be tracked. The information provided shall include required information, as applicable, including any updates to information previously provided (para. 64 of the MPGs).

[b] For example: economy-wide absolute emission reduction, emission intensity reduction, emission reduction below a projected baseline, mitigation co-benefits of adaptation actions or economic diversification plans, policies and measures, and other (para. 64(a) of the MPGs).

[c] Parties with both unconditional and conditional targets in their NDC may add a row to the table to describe conditional targets.

[d] For example: recalculation of previously reported inventory data, or greater detail on methodologies or use of cooperative approaches (para. 64(g) of the MPGs).

Table 1. Structured summary: Description of selected indicators

Indicator(s) selected to track progress[a]	*Description*
{Indicator}	Annual total net GHG emissions consistent with the scope of the NDC in CO_2eq.
Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate[b]	The reference level is total net GHG emissions of the EU in the base year (1990). The reference level value for the EU is 4,699,405 kt CO_2eq.
Updates in accordance with any recalculation of the GHG inventory, as appropriate	This is the first time the reference level is reported, hence there are no updates. The value of the reference level may be updated in the future due to methodological improvements to the EU GHG inventory and to the determination of international aviation and navigation emissions in the NDC scope.
Relation to NDC[c]	The indicator is defined in the same unit and metric as the target of the NDC. Hence it can be used directly for tracking progress in implementing and achieving the NDC target.

Notes: (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs. (3) The Party could add rows for each additional selected indicator and related information.

[a] Each Party shall identify the indicator(s) that it has selected to track progress of its NDC (para. 65 of the MPGs).

[b] Each Party shall provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s) and shall update the information in accordance with any recalculation of the GHG inventory, as appropriate (para. 67 of the MPGs).

[c] Each Party shall describe for each indicator identified how it is related to its NDC (para. 76(a) of the MPGs).

Table 2. Structured summary: Definitions needed to understand NDC

Definitions[a]	
Definition needed to understand each indicator:	
Annual total net GHG emissions	Total net GHG emissions correspond to the annual total of emissions and removals reported in CO_2 equivalents in the latest GHG inventory of the EU. The totals comprise all sectors and gases listed in the table entitled 'Reporting format for the description of a Party's nationally determined contribution under Article 4 of the Paris Agreement, including updates'. Indirect CO_2 emissions are included from those Member States that report these emissions.
Any sector or category defined differently than in the national inventory report:	
{Sector}	Not applicable
{Category}	Not applicable
Definition needed to understand mitigation co- benefits of adaptation actions and/or economic diversification plans:	
{Mitigation co-benefit(s)}	Not applicable
Any other relevant definitions:	
Not applicable	

Notes: (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs. (3) The Party could add rows for each additional sector, category, mitigation co-benefits of adaptation actions and/or economic diversification plans, indicator and any other relevant definitions.

[a] Each Party shall provide any definitions needed to understand its NDC under Article 4, including those related to each indicator identified in para. 65 of the MPGs, those related to any sectors or categories defined differently than in the national inventory report, or the mitigation co-benefits of adaptation actions and/or economic diversification plans (para. 73 of the MPGs).

Table 3. Structured summary: Methodologies and accounting approaches – consistency with Article 4, paragraphs 13 and 14, of the Paris Agreement and with decision 4/CMA.1

Reporting requirement	*Description or reference to the relevant section of the BTR*
For the first NDC under Article 4:[a]	
Accounting approach, including how it is consistent with Article 4, paragraphs 13–14, of the Paris Agreement (para. 71 of the MPGs)	Net GHG emissions, calculated from emissions and removals from the GHG inventory of the EU and supplemented with data on international aviation and navigation collected in the Joint Research Centre's Integrated Database of the European Energy System (JRC-IDEES), are used to quantify progress towards implementing and achieving of the NDC in respect of the NDC target. This approach promotes environmental integrity, transparency, accuracy, completeness, comparability and consistency and ensures the avoidance of double counting, as described below. Existing methods and guidance under the Convention are taken into account, as described below.
For the second and subsequent NDC under Article 4, and optionally for the first NDC under Article 4:[b]	
Information on the accounting approach used is consistent with paragraphs 13–17 and annex II of decision 4/CMA.1 (para. 72 of the MPGs)	The European Union accounts for anthropogenic emissions and removals corresponding to its NDC consistent with paragraphs 13–17 and annex II of decision 4/CMA.1, as detailed below.
Explain how the accounting for anthropogenic emissions and removals is in accordance with methodologies and common metrics assessed by the IPCC and in accordance with decision 18/CMA.1 (para. 1(a) of annex II to decision 4/CMA.1)	The accounting for anthropogenic emissions and removals is based on the data contained in the EU GHG inventory, which is compiled in accordance with the 2006 IPCC Guidelines. The accounting for emissions from international aviation and navigation in the scope of the NDC is based on activity data, emission factors and methods which are in line with the IPCC guidelines. The accounting approach is also in accordance with decision 18/CMA.1 because the EU GHG inventory conforms with the provisions of chapter II of the Annex to decision 18/CMA.1.
Explain how consistency has been maintained between any GHG data and estimation methodologies used for accounting and the Party's GHG inventory, pursuant to Article 13, paragraph 7(a), of the Paris Agreement, if applicable (para. 2(b) of annex II to decision 4/CMA.1)	The GHG data used for accounting is based on the GHG inventory of the EU. The methodology used for accounting consists of a balancing of GHG emissions and removals, which is consistent with the methodologies used in the GHG inventory of the EU.
Explain how overestimation or underestimation has been avoided for any projected emissions and removals used for accounting (para. 2(c) of annex II to decision 4/CMA.1)	Not applicable. Projected emissions and removals are not used for accounting.
For each NDC under Article 4:[b]	
Accounting for anthropogenic emissions and removals in accordance with methodologies and common metrics assessed by the IPCC and adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement:	
Each methodology and/or accounting approach used to assess the implementation and achievement of the target(s), as applicable (para. 74(a) of the MPGs)	The methodology used to assess the implementation and achievement consists of a comparison of the reduction of net GHG emissions from the GHG inventory national total, including a share of GHG inventory international aviation and navigation emissions in line with the NDC scope, with the NDC target. The EU will account for its cooperation with other Parties in a manner consistent with guidance adopted by the CMA.

Each methodology and/or accounting approach used for the construction of any baseline, to the extent possible (para. 74(b) of the MPGs)	Progress is tracked by comparing annual net emissions with net emissions in the base year. No baseline is constructed.
If the methodology or accounting approach used for the indicator(s) in table 1 differ from those used to assess the implementation and achievement the target, describe each methodology or accounting approach used to generate the information generated for each indicator in table 4 (para. 74(c) of the MPGs)	Not applicable. The methodology/accounting approach used for the indicator in table 1 is the same as the methodology/accounting approach used to assess the implementation and achievement the target.
Any conditions and assumptions relevant to the achievement of the NDC under Article 4, as applicable and available (para. 75(i) of the MPGs)	Not applicable. The NDC is unconditional.
Key parameters, assumptions, definitions, data sources and models used, as applicable and available (para. 75(a) of the MPGs)	Net GHG emissions are the key parameter used for tracking progress in implementing and achieving the NDC. The GHG inventory of the EU is the data source used. Details on assumptions, definitions and models used for determining net GHG emissions can be found in the National Inventory Document of the EU.
IPCC Guidelines used, as applicable and available (para. 75(b) of the MPGs)	2006 IPCC Guidelines; and 2019 refinement to the 2006 IPCC Guidelines for some source categories.
Report the metrics used, as applicable and available (para. 75(c) of the MPGs)	100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report.
For Parties whose NDC cannot be accounted for using methodologies covered by IPCC guidelines, provide information on their own methodology used, including for NDCs, pursuant to Article 4, paragraph 6, of the Paris Agreement, if applicable (para. 1(b) of annex II to decision 4/CMA.1)	Not applicable.
Provide information on methodologies used to track progress arising from the implementation of policies and measures, as appropriate (para. 1(d) of annex II to decision 4/CMA.1)	Progress arising from the implementation of policies and measures is expressed in a reduction of GHG emissions or increase of GHG removals. The methodology used to assess such progress is based on the estimation of GHG emissions and removals in the GHG inventory of the EU and on data on international aviation and navigation monitored in the Joint Research Centre's Integrated Database of the European Energy System (JRC-IDEES).
Where applicable to its NDC, any sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, taking into account any relevant decision under the Convention, as applicable (para. 75(d) of the MPGs)	Sector-, category- and activity-specific assumptions, methodologies and approaches applicable to the NDC are described in the national inventory document of the EU and are consistent with IPCC guidance. Emissions from international aviation and navigation in the scope of the NDC are determined based on activity data from the JRC-IDEES, using emission factors and methodologies consistent with IPCC guidance.

For Parties that address emissions and subsequent removals from natural disturbances on managed lands, provide detailed information on the approach used and how it is consistent with relevant IPCC guidance, as appropriate, or indicate the relevant section of the national GHG inventory report containing that information (para. 1(e) of annex II to decision 4/CMA.1, para. 75(d)(i) of the MPGs)	Not applicable[74]
For Parties that account for emissions and removals from harvested wood products, provide detailed information on which IPCC approach has been used to estimate emissions and removals (para. 1(f) of annex II to decision 4/CMA.1, para. 75(d)(ii) of the MPGs)	The EU accounts for emissions and removals from harvested wood products as an integral part of net GHG emissions and removals in the scope of the NDC. GHG emissions and removals from harvested wood products are determined in accordance with the production approach, as defined in Annex 12.A.1 to Volume 4 of the 2006 IPCC Guidelines for National GHG Inventories.
For Parties that address the effects of age-class structure in forests, provide detailed information on the approach used and how this is consistent with relevant IPCC guidance, as appropriate (para. 1(g) of annex II to decision 4/CMA.1, para. 75(d)(iii) of the MPGs)	The EU does not address the effects of age-class structure in forests in the accounting approach for its NDC.
How the Party has drawn on existing methods and guidance established under the Convention and its related legal instruments, as appropriate, if applicable (para. 1(c) of annex II to decision 4/CMA.1)	The EU has drawn on existing methods and guidance established under the Convention by using an NDC target which is an advancement of the quantified economy-wide emission reduction target for 2020, which was communicated and tracked under the Convention.
Any methodologies used to account for mitigation co- benefits of adaptation actions and/or economic diversification plans (para. 75(e) of the MPGs)	The NDC does not consist of mitigation co-benefits of adaptation actions and/or economic diversification plans. Hence these co-benefits were not accounted for, and no related methodologies were used.
Describe how double counting of net GHG emission reductions has been avoided, including in accordance with guidance developed related to Article 6 if relevant (para. 76(d) of the MPGs)	GHG emissions and removals from the EU's GHG inventory, complemented with JRC-IDEES data for determining the share of emissions form international aviation and navigation in the NDC scope, are used for tracking the net GHG emission reductions. Emissions and removals are reported in line with IPCC guidelines, with the aim of neither over- nor underestimating GHG emissions. GHG emissions and removals are reported by the EU and its Member States in their respective GHG inventories. For tracking progress towards implementing and achieving the EU NDC, only those net GHG emission reductions are counted which are reported at EU level. For cooperative approaches under Article 6, corresponding adjustments are made in a manner consistent with guidance adopted by the CMA.
Any other methodologies related to the NDC under Article 4 (para. 75(h) of the MPGs)	Not applicable.

[74] To determine emissions and removals in the scope of the NDC, the EU does not disaggregate emissions and removals on managed land into those considered to result from human activities and those considered to result from natural disturbances.

Ensuring methodological consistency, including on baselines, between the communication and implementation of NDCs (para. 12(b) of the decision 4/CMA.1):	
Explain how consistency has been maintained in scope and coverage, definitions, data sources, metrics, assumptions and methodological approaches including on baselines, between the communication and implementation of NDCs (para. 2(a) of annex II to decision 4/CMA.1)	The scope, coverage, definitions, data sources, metrics and approaches are consistent between the communicated NDC and its implementation, as described in the BTR.
Explain how consistency has been maintained between any GHG data and estimation methodologies used for accounting and the Party's GHG inventory, pursuant to Article 13, paragraph 7(a), of the Paris Agreement, if applicable (para. 2(b) of annex II to decision 4/CMA.1) and explain methodological inconsistencies with the Party's most recent national inventory report, if applicable (para. 76(c) of the MPGs)	The GHG inventory of the EU is the primary source for the GHG data used for accounting. The share of GHG inventory emissions from interna-tional aviation and navigation in the scope of the NDC have been determined separately based on JRC-IDEES data, using emission factors and methodologies consistent with IPCC guidance. There are no methodological inconsistencies with the most recent national inventory report.
For Parties that apply technical changes to update reference points, reference levels or projections, the changes should reflect either of the following (para. 2(d) of annex II to decision 4/CMA.1):	
Technical changes related to technical corrections to the Party's inventory (para. 2(d)(i) of annex II to decision 4/CMA.1)	No technical changes related to technical corrections to the GHG inventory were applied to update reference points, reference levels or projections.
Technical changes related to improvements in accuracy that maintain methodological consistency (para. 2(d)(ii) of annex II to decision 4/CMA.1)	No technical changes related to improvements in accuracy were applied to update reference points, reference levels or projections.
Explain how any methodological changes and technical updates made during the implementation of their NDC were transparently reported (para. 2(e) of annex II to decision 4/CMA.1)	Methodological changes and technical updates are reported in the chapter entitled 'recalculations and improvements' of the National Inventory Document of the EU. GHG emissions from international aviation and navigation in the scope of the EU NDC are reported for the first time in this BTR (see Annex A2).
Striving to include all categories of anthropogenic emissions or removals in the NDC and, once a source, sink or activity is included, continuing to include it (para. 3 of annex II to decision 4/CMA.1):	
Explain how all categories of anthropogenic emissions and removals corresponding to their NDC were accounted for (para. 3(a) of annex II to decision 4/CMA.1)	The indicator used for tracking progress towards implementing and achieving the NDC target comprises all categories of anthropogenic emissions and removals corresponding to the NDC.
Explain how Party is striving to include all categories of anthropogenic emissions and removals in its NDC, and, once a source, sink or activity is included, continue to include it (para. 3(b) of annex II to decision 4/CMA.1)	The scope of the NDC of the EU covers all categories of emissions and removals reported in the GHG inventory, in line with IPCC guidelines. Member States report some specific source categories as 'not estimated' when the estimates would be insignificant as defined in paragraph 32 of the annex to decision 18/CMA.1. Information on these categories is provided in Common Reporting Table 9 of the respective Member States' GHG inventory submission. Besides including all sectors listed in decision 18/CMA.1, a share of emissions from international aviation and navigation are also included in the NDC scope.
Provide an explanation of why any categories of anthropogenic emissions or removals are excluded (para. 4 of annex II to decision 4/CMA.1)	All categories of anthropogenic emissions and removals contained in the national total of the EU GHG inventory are included in the NDC.

Each Party that participates in cooperative approaches that involve the use of ITMOs towards an NDC under Article 4, or authorizes the use of mitigation outcomes for international mitigation purposes other than achievement of its NDC	
Provide information on any methodologies associated with any cooperative approaches that involve the use of ITMOs towards an NDC under Article 4 (para. 75(f) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.
Provide information on how each cooperative approach promotes sustainable development, consistent with decisions adopted by the CMA on Article 6 (para. 77(d)(iv) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.
Provide information on how each cooperative approach ensures environmental integrity consistent with decisions adopted by the CMA on Article 6 (para. 77(d)(iv) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.
Provide information on how each cooperative approach ensures transparency, including in governance, consistent with decisions adopted by the CMA on Article 6 (para. 77(d)(iv) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.
Provide information on how each cooperative approach applies robust accounting to ensure, inter alia, the avoidance of double counting, consistent with decisions adopted by the CMA on Article 6 (para. 77(d)(iv) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.
Any other information consistent with decisions adopted by the CMA on reporting under Article 6 (para. 77(d)(iii) of the MPGs)	The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA, when applicable.

Notes: (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs.

[a] For the first NDC under Article 4, each Party shall clearly indicate and report its accounting approach, including how it is consistent with Article 4, paras. 13–14, of the Paris Agreement (para. 71 of the MPGs).

[b] For the second and subsequent NDC under Article 4, each Party shall provide information referred to in chapter III.B and C of the MPGs consistent with decision 4/CMA.1. Each Party shall clearly indicate how its reporting is consistent with decision 4/CMA.1 (para. 72 of the MPGs). Each Party may choose to provide information on accounting of its first NDC consistent with decision 4/CMA.1 (para. 71 of the MPGs).

Table 4. Structured summary: Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement[a]

	Unit, as applicable	Reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate (paras. 67 and 77(a)(i) of the MPGs)	Implementation period of the NDC covering information for previous reporting years, as applicable, and the most recent year, including the end year or end of period (paras. 68 and 77(a)(ii–iii) of the MPGs)		Target level[b]	Target year or period	Progress made towards the NDC, as determined by comparing the most recent information for each selected indicator, including for the end year or end of period, with the reference point(s), level(s), baseline(s), base year(s) or starting point(s) (paras. 69–70 of the MPGs)
			2021	2022			
Indicator(s) selected to track progress of the NDC or portion of NDC under Article 4 of the Paris Agreement (paras. 65 and 77(a) of the MPGs):							
Annual total GHG emissions and removals consistent with the scope of the NDC [(1)]	**kt CO_2eq**	**4,699,405**	**3,272,650**	**3,205,223**	**2,114,732 (-55% below base year level)[(4)]**	**2030**	**The most recent level of the indicator is 31.8 % below the base year level.**
Where applicable, total GHG emissions and removals consistent with the coverage of the NDC (para. 77(b) of the MPGs)	kt CO_2eq		3,272,650	3,205,223			
Contribution from the LULUCF sector for each year of the target period or target year, if not included in the inventory time series of total net GHG emissions and removals, as applicable (para. 77(c) of the MPGs)	NA		NA	NA			
Each Party that participates in cooperative approaches that involve the use of ITMOs towards an NDC under Article 4 of the Paris Agreement, or authorizes the use of mitigation outcomes for international mitigation purposes other than achievement of the NDC, shall provide (para. 77(d) of the MPGs):							
If applicable, an indicative multi-year emissions trajectory, trajectories or budget for its NDC implementation period (para. 7(a)(i), annex to decision 2/CMA.3)	kt CO_2eq		NA[(2)]	NA[(2)]			
If applicable, multi-year emissions trajectory, trajectories or budget for its NDC implementation period that is consistent with the NDC (para. 7(b), annex to decision 2/CMA.3)	NA		NA	NA			
Annual anthropogenic emissions by sources and removals by sinks covered by its NDC or, where applicable, from the emission or sink categories as identified by the host Party pursuant to paragraph 10 of annex to decision 2/CMA.3 (para. 23(a), annex to decision 2/CMA.3) (as part of para. 77 (d)(i) of the MPGs)	kt CO_2eq		3,272,650	3,205,223			
Annual anthropogenic emissions by sources and removals by sinks covered by its NDC or, where applicable, from the portion of its NDC in accordance with paragraph 10, annex to decision 2/CMA.3 (para. 23(b), annex to decision 2/CMA.3)	kt CO_2eq		3,272,650	3,205,223			

If applicable, annual level of the relevant non-GHG indicator that is being used by the Party to track progress towards the implementation and achievement of its NDC and was selected pursuant to paragraph 65, annex to decision 18/CMA.1 (para. 23(i), annex, decision 2/CMA.3)	NA		NA	NA			
Annual quantity of ITMOs first transferred (para. 23(c), annex to decision 2/CMA.3) (para. 77(d)(ii) of the MPGs)	kt CO_2eq		NA[(2)]	NA[(2)]			
Annual quantity of mitigation outcomes authorized for use for other international mitigation purposes and entities authorized to use such mitigation outcomes, as appropriate (para. 23(d), annex to decision 2/CMA.3) (para. 77(d)(ii) of the MPGs)	NA		NA	NA			
Annual quantity of ITMOs used towards achievement of the NDC (para. 23(e), annex to decision 2/CMA.3) (para. 77(d)(ii) of the MPGs)	kt CO_2eq		NA[(2)]	NA[(2)]			
Net annual quantity of ITMOs resulting from paras. 23(c)-(e), annex to decision 2/CMA.3 (para. 23(f), annex to decision 2/CMA.3)	kt CO_2eq		NA[(2)]	NA[(2)]			
If applicable, the cumulative amount of ITMOs, divided by the number of elapsed years in the NDC implementation period (para. 7(a)(ii), annex to decision 2/CMA.3)	NA		NA	NA			
Total quantitative corresponding adjustments used to calculate the emissions balance referred to in para. 23(k)(i), annex to decision 2/CMA.3, in accordance with the Party's method for applying corresponding adjustments consistent with section III.B, annex to decision 2/CMA.3 (Application of corresponding adjustments) (para. 23(g), annex to decision 2/CMA.3)	kt CO_2eq		NA[(2)]	NA[(2)]			
The cumulative information in respect of the annual information in para. 23(f), annex to decision 2/CMA.3, as applicable (para. 23(h), annex to decision 2/CMA.3)	kt CO_2eq		NA[(2)]	NA[(2)]			
For metrics in tonnes of CO2 eq. or non-GHG, an annual emissions balance consistent with chapter III.B (Application of corresponding adjustment), annex, decision 2/CMA.3 (para. 23(k)(i), annex to decision 2/CMA.3) (as part of para. 77 (d)(ii) of the MPGs)	kt CO_2eq		NA[(2)]	NA[(2)]			
For metrics in non-GHG, for each non-GHG metric determined by participating Parties, annual adjustments resulting in an annual adjusted indicator, consistent with para. 9 of chapter III.B (Corresponding adjustments), annex to decision 2/CMA.3, and future guidance to be adopted by the CMA (para. 23(k)(ii), annex to decision 2/CMA.3)	NA		NA	NA			

Any other information consistent with decisions adopted by the CMA on reporting under Article 6 (para. 77(d)(iii) of the MPGs)	NA		NA[3]	NA[3]			

Notes: (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs. (3) The Party could add rows for each additional selected indicator.

[a] This table could be used for each NDC target in case Party's NDC has multiple targets.

[b] Parties may provide information on conditional targets in a documentation box with references to the relevant page in their biennial transparency report.

Custom footnotes:

[(1)] Net GHG emissions in the scope of the NDC

[(2)] To be reported in subsequent BTR

[(3)] The EU will account and report for its cooperation with other Parties in a manner consistent with the guidance adopted by CMA1 and any further guidance agreed by the CMA in a subsequent BTR or initial report, when applicable.

[(4)] The target level is 55% below the reference level. The value of the reference level may be updated in the future due to methodological improvements to the EU GHG inventory and to the determination of international aviation and navigation emissions in the NDC scope.

The section 'Assessment of the achievement of the Party's NDC' of CTF table 4 is not included here because it applies after the end of the BTR period only, and the CTF reporting tool does not allow filling in this information at this point in time.

Annex A2 Methodology applied for the identification of GHG emissions from international aviation and navigation in the scope of the EU NDC

The scope of the EU's NDC goes beyond national GHG emissions and removals in the scope of the national GHG inventory; it also includes specific emissions from international aviation and navigation. This annex describes the methodology for identifying these emissions.

International aviation and maritime emissions are estimated using the Joint Research Centre's Integrated Database of the European Energy System (JRC-IDEES)[75]. It allows to split the international transport CO_2 emissions into intraEU/extraEU and intraEEA/extraEEA categories backwards in time (i.e. 1990)[76]. EEA stands for the European Economic Area, comprising the 27 EU Member States, Iceland, Liechtenstein and Norway.

For international transport, JRC-IDEES uses a decomposition methodology that reconciles the scopes of available primary statistics and harmonises historical data on international aviation and maritime emissions, energy use and transport activity. The resulting annual dataset covers 1990-2021 and distinguishes between domestic, intra-EU/intra-EEA and extra-EU/extra-EEA activity for each EU Member State, Norway and Iceland.

In aviation, JRC-IDEES distinguishes between passenger and freight modes, with three geographical categories of flight origin/destination for each mode: domestic, intra-EEA plus the UK, and extraEEA plus the UK. Intra-EU, the UK and EEA categories are also used internally during calibration but aggregated for reporting. For each mode/category combination, JRC-IDEES estimates activity (as passenger-km or tonnes-km), energy use and CO_2 emissions, aircraft stock (expressed as representative aircraft), load factors, and aircraft efficiencies. As country-specific activity statistics are not available, the breakdown first allocates EU-level activity data from the Transport Pocketbook[77] of the European Commission's Directorate-General for Mobility and Transport to each country and flight category.

For passenger modes, this allocation calculates average load factors using Eurostat data on total passengers and flights. These load factors and total flight numbers are combined with average flight distances from EUROCONTROL, the pan-European organisation dedicated to air traffic management, to yield an initial estimate for passenger transport activity. For intra-EU activity, a uniform scaling factor is then

[75] European Commission, Joint Research Centre, Rózsai, M., Jaxa-Rozen, M., Salvucci, R., Sikora, P., Tattini, J. and Neuwahl, F., JRC-IDEES-2021: the Integrated Database of the European Energy System – Data update and technical documentation, Publications Office of the European Union, Luxembourg, 2024, doi:10.2760/614599.

[76] The JRC-IDEES analytical database is designed to support energy modelling and policy analysis, by combining primary statistics with technical assumptions to compile detailed energy-economy-emissions historical data for each key energy sector. For aviation, EEA emissions includes emissions related to the UK but not to Switzerland, where total CO2 emissions for the scope are additionally estimated from EUROCONTROL data.

[77] Statistical pocketbook 2023, https://transport.ec.europa.eu/facts-funding/studies-data/eu-transport-figures-statistical-pocketbook/statistical-pocketbook-2023_en.

applied across Member States to match total EU-level Transport Pocketbook data. Freight activity follows a similar process, using a 'representative flight' concept with a common load factor across all Member States to account for mixed passenger-freight flights.

Next, the decomposition estimates fuel use from EUROCONTROL data, by deriving a distancedependent average aircraft efficiency, then applying it to the country-specific ensemble of flights and routes. The final step scales the estimates to meet Eurostat energy balances for total domestic and international consumption back to 1990 values, maintaining intra-EEA/extra-EEA fuel use ratios derived from EUROCONTROL. JRC-IDEES additionally reports resulting differences with submissions by Parties to the UNFCCC. The above process is followed throughout the entire decomposition period (1990-2021). Data gaps are estimated from the existing indicators as follows:

- The process iterates backwards towards 1990, starting from the oldest years in which data are available in each Member State.
- Average flight distance is kept constant for early years without EUROCONTROL data (generally before 2004).
- If the load factor (passengers per flight) cannot be calculated due to a lack of passenger and/or flight data, it is estimated from the trend of the existing time series.
- Missing numbers of flights are calculated from the load factor and the passengers carried.
- If no passenger data are available, the total mileage is estimated from the energy consumption, and combined with average flight distance to estimate the number of flights. The number offlights is then combined with the load factor to estimate the total passengers carried.
- For early years without data, constant values are assumed for the factors used to i) scale intraEU activity to the Transport Pocketbook, ii) adjust the estimated fuel use to EUROCONTROL data for specific routes, and iii) scale this adjusted fuel use to Eurostat energy balances (e.g. before 1995 for Transport Pocketbook data; before 2004 for EUROCONTROL data).

For international maritime transport, JRC-IDEES estimates data both for intra-EU/extra-EU and intra-EEA/extra-EEA geographical categories. The emission estimates in the GHG inventory already include CO_2, CH_4, and N_2O gases. Transport activity (tonnes-km) is estimated from Eurostat data on gross weight of transported goods, using port-level and country-level data for intra-EU and extra-EU categories, respectively. Intra-EU activities are then scaled to match the Transport Pocketbook totals, accounting for domestic coastal shipping (calibrated separately in JRC-IDEES).

Next, transport activity is combined with data reported under the monitoring, reporting and verification system for maritime transport under the EU ETS ('THETIS MRV'[78]), namely EU-level mileage data and country-specific vessel sizes to estimate load factors (tonnes per movement). The load factors and resulting annual mileage (km) are calibrated to meet EU-level THETIS MRV mileage. The annual mileage is in turn combined with THETIS MRV average efficiency to yield a total

[78] THETIS MRV, https://mrv.emsa.europa.eu/#public/eumrv.

technical energy consumption, with corresponding emissions derived from default emissions factors.

This energy consumption is scaled to Eurostat energy balances so as to minimise discrepancy to total intra-EU THETIS MRV emissions. As with aviation, JRC-IDEES reports corresponding differences to submissions under the UNFCCC. Early years with data gaps are estimated from existing indicators as follows:

- The process iterates backwards towards 1990, starting from the oldest years in which data are available in each Member State.
- Average distance of voyages is kept constant for early years without Eurostat activity data (generally before 1997-2000).
- If the load factor (tonnes per movement) cannot be estimated due a lack of activity data, it is kept constant.
- If activity data are not available, it is estimated from Eurostat energy consumption.
- Missing mileage data are derived from the activity and load factor estimates.
- For early years without data, constant values are assumed for the factors used to
  i) scale intraEU activity to the Transport Pocketbook,
  ii) scale estimated mileage to meet EU-level THETIS MRV mileage, and
  iii) scale domestic and intra-EU CO_2 emissions estimated from energy consumption so as to match total THETIS MRV CO_2 emissions.
- Finally, the ratios between the estimated MRV emissions and the CO_2 emissions for the reported transport activity (for intra-EU/EEA and extra-EU/EEA categories) between 2018 and 2021 are used to calculate the MRV compliant estimates back to 1990 levels.

For the year 2022, the international navigation and aviation emissions under the EU NDC scope have been estimated by applying the same share of those emissions on the total international navigation and aviation emissions (as reported in the GHG inventory) as in 2021.

Table A2(1) provides an overview of the resulting net GHG emissions in the scope of the NDC.

Table A2(1) Summary of GHG emissions in the scope of the NDC

Scope	Unit	1990	2021	2022
Net GHG emissions from the national GHG inventory of the EU	kt CO_2eq	4 649 007	3 215 997	3 132 670
GHG emissions from international aviation in the scope of the NDC	kt CO_2eq	23 906	26 326	41 405
GHG emissions from international navigation in the scope of the NDC	kt CO_2eq	26 492	30 327	31 149
Net GHG emissions in the scope of the NDC (used for tracking progress and presented in CTF Table 4)	kt CO_2eq	4 699 405	3 272 650	3 205 223

Source: GHG inventory of the EU; calculations based on JRC-IDEES, EUROCONTROL and THETIS MRV as described above.

Annex B Information on policies and measures

This annex contains the following information:

Annex B1: Overview of Denmark's portfolio of climate relevant policies and measures.

Annex B2: Mitigation policies and measures

Annex B3 Methodologies and assumptions used to estimate the greenhouse gas emission reductions or removals

Annex B4 A plan for the implementation of adopted policies and measures

Annex B1 Overview of Denmark's portfolio of climate relevant policies and measures

Table B1(1): Overview of Denmark's portfolio of climate relevant policies and measures (PaMs) reported in this report, including information on which is new – together with the name of policies and measures no longer in place (i.e. expired, changed and/or included elsewhere as a new PaM).

Name of mitigation action (PaM) CC=CrossCutting TD=Taxes&Duties EN=Energy(without BU,TR&HO) BU-Business TR=Transport HO=Households IP=Industrial processes and product use AG=Agriculture LU=LULUCF WA=Waste G=Groups of PaMs	Single PaM or group of PaMs	*(This column is reserved for future reporting of changes to the PaMs reported in this BTR1)*
0-CC-01: Funds for supporting capturing and storing CO2 (CCS)	Single	
0-CC-02: Market-based subsidy pool for capturing and storing CO2 (CCUS)	Single	
0-CC-03: Technology-neutral funds for supporting CO2 capture etc. (NECCS)	Single	
0-CC-04: Investment in green research, development, and demonstration.	Single	
1-TD-01b: Mineral-oil Tax Act	Single	
1-TD-02: Gas Tax Act	Single	
1-TD-03: Coal Tax Act	Single	
1-TD-04: Electricity Tax	Single	
1-TD-05: CO2 tax on energy products	Single	
1-TD-06: Green Owner Tax - a fuel-efficiency-dependent annual tax on motor vehicles	Single	
1-TD-07: Registration Tax - a fuel-efficiency-dependant registration tax on passenger cars and vans	Single	
1-TD-08: Tax on HFCs, PFCs and SF6 - equivalent to the CO2 tax	Single	
1-TD-09: Tax on methane from natural gas fired power plants - equivalent to the CO2 tax	Single	
1-TD-12: Extension of low process electricity tax for charging electric and plug-in hybrid cars that subscribe to driving power through a business service until 2031	Single	
1-TD-13: Increase in CFC tax [enhancement of 1-TD-08]	Single	
1-TD-14: Mileage-based toll for trucks	Single	
1-TD-15(NEW): Green restructuring of heating taxes	Single	
1-TD-16(NEW): Increase of energy taxes on fossil fuels use in the business sector	Single	
2-EN-01: EU-CO2-emission trading scheme for electricity and district heat production and certain industrial processes (incl. Business) and aviation from 2012 (EU ETS). From 2024 EU ETS also covers the maritime sector and from 2025 ETS2-sectors including buildings, road transport and additional sectors.	Single	
2-EN-02: Biomass Agreement (Agreement on the use of biomass in electricity production)	Single	
2-EN-03: Price supplement and subsidies for renewable energy production	Single	
2-EN-04: Tenders for offshore wind turbines	Single	
2-EN-06: Energy development and demonstration	Single	
2-EN-07: Liberalization of waste incineration plants	Single	
2-EN-08: Phasing out fossil fuels and promoting locally based RE-heat by adjustment of requirements for district heating projects	Single	
2-EN-09: Establishment of two energy islands	Single	
2-EN-10: Stop oil and gas extraction in the North Sea in 2050 and cancellation of 8th and future tender rounds	Single	
2-EN-11(NEW): Green District Heating	Single	
3-BU-09: Mandatory Energy Audit for large Enterprises	Single	
3-BU-11: Denmark's Export and Investment Fund (EIFO)	Single	
3-BU-13: Obligation for energy savings in government buildings	Single	
3-BU-14: Competitive subsidy scheme related to private enterprises	Single	
3-BU-15: Subsidy scheme for energy renovations in public buildings (municipalities and regions)	Single	
3-BU-16: Targeted support for horticulture	Single	
3-BU-17: Energy efficiency efforts	Single	
3-BU-19: Green reinsurance facility in EKF - now Denmark´s Export and Investment Fund	Single	
3-BU-20: Green capital injection in Vaekstfonden - now Denmark´s Export and Investment Fund	Single	
3-BU-21: Subsidy scheme related to CO2-intensive enterprises. The scheme will partly subsidize the investment cost in projects that will lead to a decrease in CO2 emissions	Single	
3-BU-22: Competitive subsidy scheme related to CO2-intensive enterprises. The scheme will subsidize entreprises experiencing increased operating costs due to decarbonization requirements	Single	
4-TR-01a: EU demands on vehicle manufactures to deliver fuel efficient cars and vans, and as of 2035, a total stop for sales of new fossil fulled passenger cars and vans .	Single	
4-TR-07: Spatial planning	Single	
4-TR-10: Electrification of parts of the rail infrastructure	Single	
4-TR-12: Investment in a tunnel under the Fehmarn Belt	Single	
4-TR-13: Use of climate-friendly asphalt for all wear layer replacements on the state road network in 2020.	Single	
4-TR-16: Allocated funds of DKK 250 million for green buses and green vehicles for demand responsive transport.	Single	
4-TR-17: Requirements to promote green taxis (Energy and environmental requirements for taxis)	Single	
4-TR-19: Implementation of pool for green transport in 2020 (DKK 75 million)	Single	
4-TR-21: Advancing and increasing the existing pool for green transport	Single	
4-TR-22: CO2 displacement requirements for RE fuels	Single	

4-TR-23: Allocated funds for green transport – The ferry subsidy scheme to support the green conversion of domestic ferries 2021-2022	Single	
4-TR-25: Climate-friendly cooperation agreements on green public transport	Single	
4-TR-26: Government subsidy for the purchase of four battery trains and charging infrastructure for battery trains in Holstebro and Skjern	Single	
4-TR-27: Funds have been set aside for a green mobility model, where the traffic models that form the basis of decisions in the transport area are further developed, cf. agreement on IP35	Single	
4-TR-28: Funds to improve cycling facilities along the state road network, cf. agreement on IP35	Single	
4-TR-29: Plan and funds (approximately 100 mio. euro) for the establishment of 25 recharging stations for heavy vehicles, cf. agreement on IP35	Single	
4-TR-30: Funds for advisory center for bicycle promotion.	Single	
4-TR-31: Funds for the promotion of infrastructure for cycling, cf. agreement on Green transformation of road transport 2020.	Single	
4-TR-32: Subsidy for charging infrastructure for battery trains on the private railway lines.	Single	
4-TR-33: Funds for the devlopment of charging infrastructure for light duty vehicles, Infrastructure Plan 2035	Single	
4-TR-34: Port subsidy scheme to support establishment of e.g. wharves, piers, road infrastructure at the port and on shore power supply, cf. agreement on Infrastructure Plan 2035 (IP35)	Single	
4-TR-35: Port and Fishing subsidy scheme to promote a green transition of ports and transition efforts within fishing and related ancillary industries.	Single	
4-TR-36: CO2-neutral charging infrastructure on the state railways	Single	
5-HO-01: Minimum energy requirements for buildings and Energy performing certificates for buildings	Single	
5-HO-02: Ecodesign and energy labelling of electric appliances	Single	
5-HO-03: Substitution of individual oil, gas and pellet based furnaces	Single	
5-HO-04: Better Houses	Single	
5-HO-05: Strategy for Energy renovation of buildings	Single	
5-HO-07: Green renovations of social housing sector	Single	
5-HO-08: Phasing out of oil and gas boilers by subsidies for conversion to green solutions [= 5-HO-03 changed and enhanced]	Single	
5-HO-09: Increase in allocated funds for phasing out oil and gas boilers until 2025 [= 5-HO-03 and 5-HO-08 further enhanced]	Single	
5-HO-10: Grants for green housing improvements (the Building Pool)	Single	
5-HO-11: Grants for individual heat pump when scrapping oil- or gas boilers (The Scrapping Scheme)	Single	
6-IP-01: Regulation of use of HFCs, PFCs and SF6 (phasing out most of the uses) - Statutory order on fluorinated greenhouse gasses	Single	
7-AG-04f: Environmental Approval Act for Livestock Holdings	Single	
7-AG-06: Biogas plants - reporting of annual mandatory leak detection and repair	Single	
7-AG-13: Agreement on Nature (the Nature Package)	Single	
7-AG-15: Pool for the promotion of biogas and other green gases by tender	Single	
7-AG-16: Separate nitrogen standards for humus soils	Single	
7-AG-17: Adjustment of utilization requirements for livestock slurry and manure	Single	
7-AG-18: Prohibition of fertilization and spraying, etc. on §3 areas (Protected areas)	Single	
7-AG-19: Subsidy for biogas (for transport and processes)	Single	
7-AG-20: Subsidy for upgrading and purification of biogas	Single	
7-AG-22: Ecological area support (Ecoscheme)	Single	
7-AG-23: Environmentally and climate-friendly grass (Ecoscheme)	Single	
7-AG-24: Plants (Ecoscheme)	Single	
7-AG-25: Biodiversity and sustainability (Ecoscheme)	Single	
7-AG-26: Implementation of "targeted regulation"	Single	
7-AG-28: Environmental and climate technology	Single	
7-AG-29: Organic investment support	Single	
7-AG-30: Collective actions measures to reduce nitrogen emissions	Single	
7-AG-31: General reduction requirement for cattle	Single	
7-AG-32: More frequent discharge of pig manure	Single	
7-AG-33: CAP-law	Single	
7-AG-34: Implementation of EU's agricultural policy	Single	
7-AG-35: Conditionality (GLM-requirements)	Single	
8-LU-01: Ban on burning straw on fields	Single	
8-LU-04: Public afforestation (state and municipalities)	Single	
8-LU-08: Establishment of the Danish Climate Forest Fund to support climate efforts	Single	
8-LU-11: Subsidy for restoration of peatland (CAP+national)	Single	
8-LU-12: Extensification of carbon rich soils (Ecoscheme)	Single	
8-LU-13: Private afforestation	Single	
8-LU-14: Temporary reduction in logging	Single	
8-LU-15: Permanent extensification	Single	
9-WA-01: A ban of landfill of combustible waste.	Single	
9-WA-02: The waste tax	Single	
9-WA-03: Weight-and-volume-based packaging taxes	Single	
9-WA-06: Implementation of the EU landfill directive	Single	
9-WA-09: Subsidy programme for biocovers on landfills	Single	
9-WA-10: Prohibition of free plastic bags and thin plastic bags	Single	
9-WA-11: Triple the tax on carrier bags and disposable tableware	Single	
9-WA-12: Requirements for the possibility of direct reuse at municipal recycling stations	Single	
9-WA-13(G): Streamlining the sorting of business household-like waste	Single	
9-WA-14(G): Streamlining and mandatory collection schemes for household waste	Single	
9-WA-15(G): Streamlining with mandatory collection scheme for household textile waste	Single	
9-WA-16: Waste sorting in the public space	Single	
9-WA-17(G): Requirements for the municipalities on tenders for bulky waste schemes with re-sorting with regard to higher real recycling and reuse	Single	
9-WA-18: Demand for smaller losses in recycling plastic	Single	
9-WA-19: Target of 50% reduction of certain plastic takeaway packaging by 2026	Single	

9-WA-20(G): National implementation of extended producer responsibility for packaging	Single	
9-WA-21: Target of 50% sorting of plastic for recycling in the agricultural sector	Single	
9-WA-22: Target of 50% sorting of plastic for recycling in the construction sector	Single	
9-WA-23: New model for waste management to ensure increased recycling	Single	
9-WA-24: Productivity gain on increased recycling of plastics through the synergy effect between a clear framework for the sector, the market gaining access to both household and acquired waste and the increase and streamlining of waste streams	Single	
9-WA-25(G): Ceiling over nitrous oxide emissions from large treatment plants	Single	
G-WA = WA13+WA14+WA15+WA17+WA20+WA25+EN07	Group	

Annex B2 Mitigation policies and measures

Information on Denmark's implemented or adopted climate relevant policies and measures (PaMs) are included in this annex in the CTF Table 5 format.
The tables are the same as in the sector chapters in Chapter 2.4, but put together here for easy access to the tabular information.

Cross-crutting measures – Carbon Capture and Storage and Green Research (page 1/1)

Name[a]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
0-CC-01: Funds for supporting capturing and storing CO2 (CCS)	In 2022, Denmark adopted a so-called green tax reform with the objective of achieving a reduction of 4.3 million tonnes of CO2 emissions annually by 2030. This green tax reform entails the introduction of a more consistent CO2 tax structure. By 2030, companies outside the EU's Emissions Trading System (ETS) will face a uniform CO2 tax rate of 750 DKK/tonne, while ETS companies will be subject to a CO2 tax rate of 375 DKK/tonne. Notably, mineralogical processes, particularly subject to risks of carbon leakage, will be subject to a reduced tax rate of 125 DKK/tonne. As part of the reform, tax revenues generated would be allocated to support further reductions and removals, for example through Carbon Capture and Storage (CCS) initiatives. Approximately 26.8 billion DKK are expected to be allocated for a CCS funding scheme between 2026 and 2041. The CCS funding scheme is expected to achieving reduction/removals of 2.29 million tonnes of CO2 emissions annually by 2030.	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2026	The Danish Ministry of Climate, Energy and Utilities	NA	2290
0-CC-02: Market-based subsidy pool for capturing and storing CO2 (CCUS)	Denmark has introduced a funding scheme to develop and showcase the country's first full value chain for carbon capture, utilization, and storage (CCUS). The CCUS funding scheme has a total budget of 8 billion DKK from 2025 to 2045 and is expected to achieving a reduction/removals of 0.43 million tonnes of CO2 emissions annually by 2030. In the first competitive bidding funding round completed in May 2023, Ørsted was awarded a 20-year contract to capture and store 0.43 mio. tonnes of CO2 annually from 2026 by means of BECCS.	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2025	The Danish Ministry of Climate, Energy and Utilities	30	430
0-CC-03: Technology-neutral funds for supporting CO2 capture etc. (NECCS)	A funding scheme has been adopted aimed at achieving carbon removals (negative emissions) from technological sources (NECCS). This funding scheme has a budget of 2.6 billion DKK from 2025 to 2032, and is expected to achieving removals of 0.16 million tonnes of CO2 emissions annually by 2030. The initiative provides support for carbon removals from a variety of biogenic sources, which includes CO2 captured from biogas being upgraded to biomethane (Bio-CCS), CCS with biomass-based energy production (BECCS), CCS on the biogenic fraction of CO2 captured from waste incineration and industrial plants, as well as direct carbon capture from the atmosphere and storage (DACCS).	1_07: Carbon capture and storage or carbon capture and utilisation	Economic instrument	Adopted	Energy, Industrial processes and product use	CO2	2026	The Danish Ministry of Climate, Energy and Utilities	NA	160
0-CC-04: Investment in green research, development, and demonstration.	Investment in green research, development, and demonstration cf. the research reserve agreement for 2022 and 2023 - 2025. EUDP is reported separately (2-EN-06). The allocation of research funding in Denmark's government budget is subject to annual negotiation among the Parties in the Danish parliament, based on a proposal presented by the government. In recent years, the Danish research and innovation policy has placed a strong emphasis on addressing climate challenges and contributing to the goals defined in the Danish Climate Act. The 2022 budget includes a research reserve agreement of DKK 2.4 billion, with budgetary reservations extending from 2023 to 2025.	3_24: Other transport, 4_29: Other industrial processes, 5_38: Other waste, 6_45: Other agriculture. , 7_56: Other land use, land-use change and forestry	Economic instrument	Adopted	Transport, Industrial processes and product use, Agriculture, LULUCF, Waste management	CO2, CH4, N2O, HFCs, PFCs, SF6	2022	The Danish Ministry of Higher Education and Science	NE	NE

Tax and Duty Measures (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
1-TD-01b: Mineral-oil Tax Act	Tax on mineral oil products in Denmark. The Mineral-oil Tax Act entered into force on 1 January 1993. Before this, the tax on petrol was regulated via the Petrol Tax Act, which entered into force on 1 January 1983, and the Act on Taxation of Gas Oil and Diesel Oil, Heating Oil, Heating Tar, and Crude Oil was regulated via the Act on Taxation of certain Oil Products, which entered into force on 3 October 1977. From 1 June 1999 a tax differentiation between light diesel and diesel low in sulphur was introduced, to encourage the use of diesel low in sulphur, which is less polluting than light diesel. This was accomplished and a change took place soon after to the effect that almost all diesel sold was low in sulphur. The purpose of further differentiation from 1 January 2005 favouring sulphur-free diesel was likewise to encourage the use of this type of diesel in favour of diesel low in sulphur, and this has been successful. In addition, tax differentiation has been introduced in order to achieve environmental goals other than direct reductions in greenhouse gas emissions. Thus tax differentiation has been introduced with a view to phasing out lead in petrol. Only the effects of the increase diesel tax, the lowering of the compensation-tax and the contemporary lowering of the milage-based roadtax are shown here.	2_14: Demand management/reduction, 3_20: Demand management/reduction	Economic instrument	Implemented	Energy, Transport	CO2, CH4, N2O	1993	Danish Ministry of Taxation	300	300
1-TD-02: Gas Tax Act	Tax on consumption of natural gas and town gas in Denmark.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1996	Danish Ministry of Taxation	NE	NE
1-TD-03: Coal Tax Act	Tax rated after the calorific value of coal, coke, furnace coke, coke gravel, crude coke, lignite briquettes and lignite, tall oil, wood tar, vegetable pitch etc.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1982	Danish Ministry of Taxation	NE	NE
1-TD-04: Electricity Tax	Tax on consumption of electricity. The electricity tax was introduced on 1 April 1977. With effect from 1 January 2013, the tax on electricity used for heating was reduced considerably, to take into account, that an increasing amount of renewable energy was being used in electricity production.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2, CH4, N2O	1977	Danish Ministry of Taxation	NE	NE
1-TD-05: CO2 tax on energy products	Tax on energy products depending on their contribution to CO2 emissions. The CO2 tax on energy products was introduced on 1 March 1992 and was imposed on different types of energy products relative to their CO2 emissions. From 1 January 2010 a structural change in the CO2 tax was implemented as an adaption to the EU Emissions Trading Scheme. The tax rate was increased to DKK 150 /tonne of CO2 indexed. In addition to this, there are CO2 taxes on heating tar, crude oil, coke, crude oil coke, lignite briquettes and lignite, LPG, and other gases. As of 1 January 2008 the CO2 taxes follow a yearly regulation of 1.8% in the period 2008-2015, similar to the energy taxes. From 2016 the tax is regulated with the consumer price index two years prior. A higher and more uniform CO2 tax was decided in 2023. It is only the estimated effects on CO2-emissions of the decision from 2023 that are shown here.	1_06: Efficiency improvement in the energy and transformation sector, 2_14: Demand management/reduction	Economic instrument	Implemented	Energy	CO2	1992	Danish Ministry of Taxation	1200	2500
1-TD-06: Green Owner Tax - a fuel-efficiency-dependent annual tax on motor vehicles	Car owners have to pay half-yearly taxes which for new cars from july 1st 2021 and onwards are differentiated in accordance with the expected CO2-emissions.	3_20: Demand management/reduction	Economic instrument	Implemented	Transport	CO2, CH4, N2O	1997	Danish Ministry of Taxation	NE	NE
1-TD-07: Registration Tax - a fuel-efficiency-dependant registration tax on passenger cars and vans	The registration tax on motorised vehicles is calculated on basis of the value of the vehicle. Further an additional CO2 element is added to the tax, so the cars that have higher CO2-emissions also pay a higher tax. Passenger cars, light commercial vehicles and motorbikes are due to pay the registration tax. Further the registration tax is lower for zero- and lowemissions cars to support the uptake of these. The effects shown only stems from the restructured of the tax adopted in 2020 and implemented since 2021.	3_20: Demand management/reduction	Economic instrument	Implemented	Transport	CO2, CH4, N2O	2000	Danish Ministry of Taxation	200	500
1-TD-08: Tax on HFCs, PFCs and SF6 - equivalent to the CO2 tax	Tax on HFCs, SF6 and PFCs. The tax is differentiated in accordance with the global warming potential of the substance with DKK 0.15 per kilogramme of CO2 equivalents as the general principle and with DKK 600 per kilogramme as a general upper limit.	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Economic instrument	Implemented	Industrial processes and product use	HFCs, PFCs, SF6	2001	Danish Ministry of Taxation	NE	NE

Tax and Duty Measures (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
1-TD-09: Tax on methane from natural gas fired power plants - equivalent to the CO2 tax	Tax on methane emissions from natural gas fired power plants - equal in terms of CO2 equivalents to the CO2 tax. As of 1 January 2011 a tax on methane emissions - equal in terms of CO2 equivalents to the CO2 tax - from natural gas fired power plants was introduced. This is expected to reduce methane emissions from gas engines through behavioural changes such as changing from motor operation to boiler operation and establishing mitigation measures. Consumption is also expected to fall as the price of heat will increase. These behavioural changes will result in falls in the emissions of unburned methane from power stations. In addition, CO2 emissions will fall and consumption of natural gas will fall. In total, a decline of 0.06 million tonnes CO2 equivalent emissions in 2 out of 5 years is expected, corresponding to an average annual reduction effect of approximately 0.02 million tonnes CO2 equivalent per year in 2008-12.	1_05: Reduction of losses, 1_08: Control of fugitive emissions from energy production	Economic instrument	Implemented	Energy	CH4	2011	Danish Ministry of Taxation	NE	NE
1-TD-12: Extension of low process electricity tax for charging electric and plug-in hybrid cars that subscribe to driving power through a business service until 2031	Extension of low process electricity tax for charging electric and plug-in hybrid cars that subscribe to driving power through a business service until 2030	3_19: Electric road transport	Economic instrument	Implemented	Transport	CO2	2020	Danish Ministry of Taxation	NE	NE
1-TD-13: Increase in CFC tax [enhancement of 1-TD-08]	The tax on HFCs, SF6 and PFCs is increased by 1. july 2021. The taxrates for the gasses are increased by approximately 30 DKK pr. ton CO2e. The ceiling of the taxrate, which amounted to 600 DKK pr. kg, is removed. The taxrates are indexed in 2021 with 5.5 pct. and in 2024 with 3.6 pct., which is equivalent to an indexation of 1,8 pct. yearly in the period 2021-2025. The lower limit on taxation of import and manufactoring of gasses are removed. [enhancement of 1-TD-08]	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Economic instrument	Adopted	Industrial processes and product use	HFCs, PFCs, SF6	2021	Danish Ministry of Taxation	NE	NE
1-TD-14: Mileage-based toll for trucks	The mileage-based toll for trucks will be in place from 2025.	3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Transport	CO2	2025	Danish Ministry of Taxation	200	300
1-TD-15(NEW): Green restructuring of heating taxes	A green restructuring of heating taxes has been decided and implemented to support green choices (heat pumps, district heating etc.) over heating solutions based on fossil fuels (oil - and gas furnaces etc.).	1_02: Increase in renewable energy in the heating and cooling sector, 3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Energy	CO2	2025	Danish Ministry of Taxation	250	350
1-TD-16(NEW): Increase of energy taxes on fossil fuels use in the business sector	An increase of 6 DKK/GJ energy taxes on fossil fuels use in the business sector has been decided. It is only the estimated CO2-effects of this increase, that are shown here.	3_20: Demand management/reduction, 3_21: Improved behaviour	Economic instrument	Adopted	Energy	CO2	2025	Danish Ministry of Taxation	500	500

Measures in the energy sector (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
2-EN-01: EU-CO2-emission trading scheme for electricity and district heat production and certain industrial processes (incl. Business) and aviation from 2012 (EU ETS). From 2024 EU ETS also covers the maritime sector and from 2025 ETS2-sectors including buildings, road transport and additional sectors.	A key instrument for reaching the goals for emission reductions is the EU Emission Trading Scheme (EU ETS), a cap and trade based CO2 allowance scheme for energy production and energy-intensive industries. The EU Member States progress with this trading scheme for greenhouse gas emissions in order to fulfil the international climate commitments set out in the Kyoto Protocol and Paris agreement, aiming to reduce CO2 emissions from covered installations and flights. The installations subject to EU ETS covers about half of Danish emissions of greenhouse gases. Statutory and administrative basis for the scheme have been established. Allowances prices have particular significance for Danish emissions as they affect the need to initiate other mitigation initiatives. Introducing the Marked Stability Reserve has had major impact on price levels thus supporting national efforts. Efforts to further increase the level of ambition in EU climate policy are key in the Danish government's climate change policy to achieve ambitious national targets. The legislative framework of the EU ETS (2021-2030) was revised in 2018 and 2023 to enable it to achieve the EU's 2030 emission reduction targets. From 2024 EU ETS also covers the maritime sector and from 2025 ETS2-sectors including buildings, road transport and additional sectors. The effects shown are for the ETS2 only.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 1_05: Reduction of losses, 1_06: Efficiency improvement in the energy and transformation sector, 3_23: Reduce emissions from international air or maritime transport, 4_27: Improved control of manufacturing	Regulatory, Economic instrument	Implemented	Energy, Transport, Industrial processes and product use	CO2	2005	The Danish Energy Agency	NA	400
2-EN-02: Biomass Agreement (Agreement on the use of biomass in electricity production)	In 2022, biomass accounted for approximately 63 % of renewable-energy production, mostly in the form of wood pellets, wood chip, straw and biodegradable waste for incineration. In 2022 approximately 38 % of the biomass was imported, mainly in the form of wood pellets, wood chips, fire wood and biodegradable waste. The energy production from biomass has more than doubled since 1990, and the consumption has now stabilized.	1_01: Increase in renewable energy sources in the electricity sector	Economic, Other (Voluntary/negotiated agreements)	Implemented	Energy	CO2	1993	The Danish Energy Agency , Entities under the EU ETS	NE	NE
2-EN-03: Price supplement and subsidies for renewable energy production	The Danish state grants subsidies for renewable energy production from wind, solar and bio energy. From 2022 subsidies are financed on the Danish state budget and will replace the financing current Public Service Obligation (PSO) levied on domestic energy consumption which is being phased out. New RE installations in Denmark are primarily subsidised through tender based schemes where developers compete for a limited susidy budget. The different subsidy schemes contribute to increase the RE share in the Danish energy consumption.	1_01: Increase in renewable energy sources in the electricity sector	Economic	Implemented	Energy	CO2	2008	The Danish Energy Agency , Entities under the EU ETS	NE	NE
2-EN-04: Tenders for offshore wind turbines	In accordance with the 2012 Energy Agreement the two Offshore Wind Farms (OWFs) Horns Rev 3 (407 MW) and Kriegers Flak (604 MW) has been fully commissioned in August 2019 and September 2021. Furthermore, the nearshore wind farms from the 2012 Energy Agreement, Vesterhav Syd (170 MW) and Vesterhav Nord (180 MW) were fully commissioned in September 2024. In the 2018 Energy Agreement , it was decided to establish three new OWFs towards 2030. The first OWF, Thor Havvindmøllepark (1000 MW), has finalized the tender process and is expected fully commissioned in 2027. The second OWF, Hesselø Havvindmøllepark, is delayed due to challenging seabed but is expected fully commissioned in 2029 with a capacity between 800 – 1.200 MW. The agreeing parties of the 2020 Climate Agreement decided that the third OWF is a part of the coming Energy Island Bornholm. In the 2020 Climate Agreement, it was decided to establish two Energy Islands with connected OWFs. One in the North Sea (10 GW) and one in the Baltic Sea (2 GW) on Bornholm. The 2022 Additional Agreement for Energy Island Bornholm expanded the capacity for Energy Island Bornholm with an additional 1 GW to a total of 3 GW. The Energy Island Bornholm is expected fully commissioned in 2030 and the 3 GW of the North Sea Energy Island is expected fully commissioned in 2033. The 2020 Climate Agreement stipulates a long-term ambition of minimum 10 GW connected to the North Sea Energy Island. The Finance Act of 2022 further stipulated an additional tendering of 2 GW offshore wind energy. One of the 2 GW is placed at Energy Island Bornholm cf. the 2022 Additional Agreement for Energy Island Bornholm. The 2022 Climate Agreement decided additional tendering of minimum 4 GW offshore wind energy with commissioning prior 2030. Furthermore, the Danish Government has granted permits to establish Frederikshavn Havvindmøllepark and Aflandshage Havvindmøllepark with a total capacity of 72 MW. In May 2023, the Additional agreement on tender requirements for 6 GW OW and Energy Island Bornholm decided the tender requirements of 6 GW off-shore wind (OW) and 3 GW related to Energy Island Bornholm. The May 2023 agreement, furthermore allows overplanting and thus the potential for collectively 14 GW or more. The agreement enables that the tender process can begin, with the political aim of full commission of the collective 9 GW OW in 2030 and two years later for overplanting.	1_01: Increase in renewable energy sources in the electricity sector	Regulatory	Implemented	Energy	CO2	2013	The Danish Energy Agency , Entities under the EU ETS	NE	NE

Measures in the energy sector (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
2-EN-06: Energy development and demonstration	Danish support for new energy technologies has been comprehensive and relatively stable. The creation of a domestic market has given Danish companies a boost. This boost has enabled many companies to become international market leaders. . R&D activities include energy savings, more efficient energy conversion, renewable energy technologies and efforts within System Integration and Smart Energy. The Danish Energy Technology Development and Demonstration Programme (EUDP) was established in 2007 and since then the programme has supported more than 1000 projects with a total of DDK 5 billion. On average, 50% of the activities under the Programme are financed by the EUDP and hence the private investments in the supported projects are of the same size as the public support leading to approximately to DKK 10 billion in total investments. In 2018, the energy and climate research was strengthened with the 2018 Energy Agreement with the intention to phase in additional state funding going from 580m DKK in 2020 to a target of 1 billion DKK annually from 2024. The research funding will support Denmark's commitment to the international collaboration Mission Innovation. With a funding target of 1 billion DKK from 2024 onwards, Denmark further cements its long-term commitment to research, development and demonstration in the field of energy and climate.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 2_14: Demand management/reduction	Information	Implemented	Energy	CO2, CH4, N2O	2008	The Danish Energy Agency	NE	NE
2-EN-07: Liberalization of waste incineration plants	On June 16, 2020, the Danish Government and Parties representing a broad majority in the Danish Parliament entered into an agreement on a 'Climate plan for a green waste sector and a circular economy'. As a follow-up to this plan, a supply-based model for waste incineration in Denmark was adopted by a majority in the parliament in June 2023.	1_05: Reduction of losses, 5_31: Enhanced recycling	Regulatory	Adopted	Energy, Waste management	CO2, CH4, N2O	2025	The Danish Ministry of Climate, Energy and Utilities	IE	IE
2-EN-08: Phasing out fossil fuels and promoting locally based RE-heat by adjustment of requirements for district heating projects	The "social economy requirement" of district heating projects is adjusted in order to promote district heating projects based on RE-technologies and locally produced heating.	1_03: Switch to less carbon-intensive fuels, 1_06: Efficiency improvement in the energy and transformation sector	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-09: Establishment of two energy islands	A broad majority of the Danish Parliament agreed on 22 June 2020 to initiate the realization of two energy islands with a minimum capacity of 5 GW in 2030. The first of the energy islands will be located on Bornholm surrounded by a 2 GW offshore wind farm in the Baltic Sea. The other energy island is expected to be established as an artificial (or platform-based) island in the North Sea with a minimum capacity of 3 GW offshore wind and with the potential for expansion to 10 GW offshore wind at a later stage. On 29 August 2022, the parties behind the climate agreement decided to increase the capacity of the energy island on Bornholm to a minimum of 3 GW, with a connection of 2 GW to Germany and a 1.2 GW connection to Denmark. On 30 May 2023, the parties agreed on the framework for tendering 9 GW of offshore wind in Denmark, including the 3 GW of offshore wind around the energy island of Bornholm. 6 GW of offshore wind was tendered on 21 April 2024, while the tender of energy island Bornholm has not yet been determined. In addition, there is still no political agreement on the build-out of the energy island in the North Sea, including connections and capacities.	1_01: Increase in renewable energy sources in the electricity sector	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-10: Stop oil and gas extraction in the North Sea in 2050 and cancellation of 8th and future tender rounds	The stop for oil and gas extraction in the North Sea in 2050 and cancellation of 8th and future tender rounds for new licences for exploration and production of oil and gas as well as reducing the area for oil and gas extraction to the western part of the North Sea implies a cessation of all activities in 2050.	1_05: Reduction of losses	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
2-EN-11(NEW): Green District Heating	In support of more choices of district heating as the heating solution where feasible, a total of 465 million DKK extra in 2024-2025 has been allocated as a partial disbursement of the Green Fund 2024 from April 2024. For the same purpose, additional DKK 150 million has been set aside with the Finance Act for 2024.	1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 1_06: Efficiency improvement in the energy and transformation sector,	Economic instrument	Adopted	Energy	CO2	2024	Ministry of Finance	50	20

Measures in the business sector (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
3-BU-09: Mandatory Energy Audit for large Enterprises	Large enterprises in Denmark have by law for many years been required to have a mandatory energy audit every fourth year. The law is no. 345 of 8th of april 2014 "Lov om ændring af lov om fremme af besparelser i energiforbruget, lov om varmeforsyning, lov om kommunal fjernkølig og forskellige andre love". The law transposes the energy efficiency directive article 8. Denmark has defined large enterprise in accordance with the EU definitions saying that enterprises that do not fall under the category of micro, small and medium-sized enterprises, in accordance with the Commission's recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized. Enterprises with ISO 50,001 or ISO 14,001 are exempt. The deadline for the first energy audits was the 5th of December 2015 and afterwards every fourth year. The scope of the energy audit are buildings, processes and transport. There is no requirement of implementing the energy saving proposals from the energy audits. With the Green Tax Reform agreed in June 2022, the requirement for energy audits was extended to include climate audits. From juli 2024 the scope of requiredе enterprises changes from large enterprises to enterprises with energy consumption >10TJ/yearly for energy audits and >85 TJ/yearly for ISO 50001 energy management system. In addition, all enterprises are required to do a climate audit with focus on CO2-emissions.	2_13: Efficiency improvement in industrial end-use sectors	Regulatory	Implemented	Energy, Industrial processes and product use	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE
3-BU-11: Denmark's Export and Investment Fund (EIFO)	In 2022, the Danish Green Investment has been merged with Vaekstfonden and EKF Denmark's Export Credit Agency into Denmark's Export and Investment Fund (EIFO). The new fond still provides loan capital to invest in various projects facilitating a sustainable development of society. The fund is able to grant loans to all types of privately-held companies and non-profit housing associations as well as public companies and institutions, whose budgets are seperate from the state, the regions and the municipalities. The activities of the fund will have a positive environmental effect due to e.g. environmental savings, increased production of renewable energy sources, more resource-efficient utility of water and materials or better waste recycling.	1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector, 1_03: Switch to less carbon-intensive fuels, 2_10: Efficiency improvements of buildings, 2_13: Efficiency improvement in industrial end-use sectors, 3_18: Low carbon fuels, 3_19: Electric road transport, 4_27: Improved control of manufacturing, 5_31: Enhanced recycling	Economic	Implemented	Energy, Transport, Industrial processes and product use, Waste management	CO2, CH4, N2O	2022	Ministry of Industry, Business and Financial Affairs	NA	200
3-BU-13: Obligation for energy savings in government buildings	The circular require state institutions to: 1) Commit to two different energysavings targets (reduction of 42.480 MWh from 2021-2030 for buildings that are owned and used by the central government (e.i. EED art. 5) and 10 pct. reductions from 2021-2030 for the buildings that is not included in the EED art. 5 target, 2) Focus on energy efficiency in their behaviour 3) Buy energy efficient products 4) Operate state buildings in an energy efficient manner 5) Report the anual comsumption of energy and water to a public database, 6) Every ministry is required to develop an energy-effiencyplan on how they will reach to the target savings 7) Map all oilburners and gasfurnances in the buildings that are included in the circular.	2_10: Efficiency improvements of buildings	Regulatory	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	NE	NE
3-BU-14: Competitive subsidy scheme related to private enterprises	The subsidy scheme targets energy efficiency initiatives and the switch from fossil to renewable energy use in industry. Thus, the initiative will speed up energy efficiency measures and transition to green energy in industry, and lead to a reduction in greenhouse gas emissions. In total, 3.3 billion DKK is allocated to the scheme in the period 2020-2029.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	100	300
3-BU-15: Subsidy scheme for energy renovations in public buildings (municipalities and regions)	The Danish Government has established a subsidy scheme targeting energy renovations in public buildings of DKK 150 million annually in 2021 and DKK 145 million in 2022 (incl. administrative costs). The subsidy targeted energy renovations in regional and municipal buildings with the lowest energy labels as well as the buildings that are heated by oil burners and gas furnaces. It is currently estimated that the effort can reduce greenhouse gas emissions by [0.004] million tonnes CO2 eq. in 2025 and 2030.	2_10: Efficiency improvements of buildings	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Energy Agency	NE	NE
3-BU-16: Targeted support for horticulture	The horticulture/green houses have good opportunities to transition away from fossil fuels, for example by converting to electric heat pumps, biomass, or district heating. However, their general competitive situation makes it difficult to bear the full economic cost of switching to renewable energy and a high CO2 tax is expected to result in reduced production, rather than transition to renewable energy. Therefore, there will be allocated funds to support the transition of the horticulture/greenhouses in 2025-2029.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2	2023	The Danish Ministry of Climate, Energy and Utilities	NE	NE

Measures in the business sector (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
3-BU-17: Energy efficiency efforts	The Danish Government has several energy efficiency efforts: - Buildings need an energy label after construction and on sale/rental. The label uses data and digital validation to improve accuracy. A new report layout was created in 2021 to improve user-friendliness, relevance, and actionable recommendations. - Denmark requires energy labels and plans for public buildings over 250m^2 every 10 years, and display them in a prominent place. A new regulation from 2021 aims to reduce energy consumption in central governmental buildings through renovations and behavioral measures. - Denmark has a national energy-labelling scheme for windows. The government offers a subsidy scheme for energy efficiency measures such as insulation, ventilation, and heat pumps. - DEA promotes energy-efficient behavior and solutions for households, businesses, and the public sector. They provide free advice, webinars, and local meetings to promote energy efficiency and the use of renewable energy sources. - Provides information and tools to craftsmen and educational institutions to promote energy efficiency. They also offer courses for craftsmen and collaborate with labor market training centers. -In 2020, a subsidy scheme was introduced for the company providing the subscription. - "Better Houses" promote energy renovation of buildings by providing a "one stop shop" service for homeowners, where they can contact one certified building contractor for overall counseling. Skilled craftsmen are educated to be advisors on energy renovation. - Denmark notified a long-term renovation strategy (LTRS) to support building stock renovation, including non-binding milestones for 2030, 2040 and 2050. The strategy outlines initiatives to promote energy efficiency in buildings.	2_10: Efficiency improvements of buildings, 2_11: Efficiency improvement of appliances, 1_06: Efficiency improvement in the energy and transformation sector	Economic	Adopted	Energy	CO2	2022	The Danish Ministry of Climate, Energy and Utilities	NE	NE
3-BU-19: Green reinsurance facility in EKF - now Denmark´s Export and Investment Fund	Green reinsurance facility in EKF - now Denmark´s Export and Investment Fund (new).	8_57: Member States shall provide a brief description of the objective.	Economic	Adopted	8: Other sectors	CO2	2023	Ministry of Industry, Business and Financial Affairs	NE	NE
3-BU-20: Green capital injection in Vaekstfonden - now Denmark´s Export and Investment Fund	Green capital injection in Vaekstfonden - now Denmark´s Export and Investment Fund (new).	8_57: Member States shall provide a brief description of the objective.	Economic	Adopted	8: Other sectors	CO2	2023	Ministry of Industry, Business and Financial Affairs	NE	NE
3-BU-21: Subsidy scheme related to CO2-intensive enterprises. The scheme will partly subsidize the investment cost in projects that will lead to a decrease in CO2 emissions	The subsidy scheme targets decarbonization in industry. Thus, the initiative will lead to a reduction in greenhouse gas emissions. In total 900 million DKK is allocated to the scheme in the period 2025-2029.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2025	The Danish Energy Agency	NE	NE
3-BU-22: Competitive subsidy scheme related to CO2-intensive enterprises. The scheme will subsidize entreprises experiencing increased operating costs due to decarbonization requirements	The scheme will subsidize entreprises experiencing increased operating costs due to decarbonization. Thus, the initiative will lead to a reduction in greenhouse gas emissions. In total 1 billion DKK is allocated to the scheme in the period 2025-2034.	2_13: Efficiency improvement in industrial end-use sectors, 4_27: Improved control of manufacturing	Economic	Adopted	Energy, Industrial processes and product use	CO2, CH4, N2O	2025	The Danish Energy Agency	NE	NE

Measures in the transport sector (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
4-TR-01a: EU demands on vehicle manufactures to deliver fuel efficient cars and vans, and as of 2035, a total stop for sales of new fossil fulled passenger cars and vans .	The EU's requirements on average CO2 emissions for passenger cars and vans, i.e. the mechanism imposing fines on manufacturers if they fail to comply with the CO2 targets.	3_16: Efficiency improvements of vehicles	Regulatory	Implemented	Transport	CO2	2000	The European Commission	NE	150
4-TR-07: Spatial planning	Spatial planning on state, regional and local level is also taking into account the objective to limit the growth in demand for passenger and freight transport and thereby reduce the number of vehicle kilometres driven and GHGs emitted. For example, spatial planning, in terms of urbanization and increased focus on minimising distances between residential areas/city centres and stations, help to reduce the need for transport.	3_18: Low carbon fuels, 3_19: Electric road transport, 3_20: Demand management/reduction, 3_22: Improved transport infrastructure	Regulatory	Implemented	Transport	CO2	2000	Municipalities	NE	NE
4-TR-10: Electrification of parts of the rail infrastructure	The entire danish railnetwork will be electrified with catenary lines or battery trains. BANEDANMARK is still in the process of electrifying. The last track to be electrified with catenary lines will be ready for commissioning by the end of 2028 – i.e. full implementation by 2029. The exact rollout of battery trains awaits an analysis.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2013	Ministry of Transport	NE	NE
4-TR-12: Investment in a tunnel under the Fehmarn Belt	The tunnel under the Fehmarn Belt will reduce CO2-emissions by potentially 200.000 tonnes per year. This is mainly because of the following effects: 1.Goods will shift from road to rail. 2. The travel distance from Copenhagen to Hamburg will be shortened. 3.The ferries between Rødby and Puttgarden is expected to cease operation. 4. The railway between Ringsted and Lübeck is electrified.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2029	Ministry of Transport	NE	NE
4-TR-13: Use of climate-friendly asphalt for all wear layer replacements on the state road network in 2020.	Use of climate-friendly asphalt for all wear layer replacements on the state road network. The climate-friendly asphalt reduces the resistance between the tire and the road which leads to a reduction in fuel consumtion leading to a reduction in CO2-emissions.	3_22: Improved transport infrastructure	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-16: Allocated funds of DKK 250 million for green buses and green vehicles for demand responsive transport.	DKK 250 million is allocated for green buses and demand responsive transport in the annual budget from 2022-2026. Each year DKK 50 million will be given to the aplicants of the funds. The parties have agreed on the annual budget decided to allocate the first DKK 50 million to busses on regional routes.	3_19: Electric road transport	Economic	Implemented	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-17: Requirements to promote green taxis (Energy and environmental requirements for taxis)	Of 1st January 2021 the energy and environmental requirements for taxies are tightened and new taxies (passenger car size) have to meet A++ requirements to be able to be a part of the industry.	3_18: Low carbon fuels, 3_19: Electric road transport	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-19: Implementation of pool for green transport in 2020 (DKK 75 million)	DKK 75 million was allocated in 2020 to extension of charging infrastructure and green transition of commercial transport.	3_18: Low carbon fuels, 3_19: Electric road transport	Regulatory	Implemented	Transport	CO2	2020	Ministry of Transport	NE	NE
4-TR-21: Advancing and increasing the existing pool for green transport	An existing subsidy scheme for green transition of transport was increased with DKK 50 million to a total of DKK 475 million which was advanced to 2021. The funds were allocated to the transition of ferries, extension of charging infrastructure and transition of commercial transport.	3_18: Low carbon fuels, 3_19: Electric road transport	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-22: CO2 displacement requirements for RE fuels	"CO2 displacement" in relation to transport means well-to-wheel greenhouse gas reduction. A part of a political agreement from 2020 regarding the transport sector is to replace the current blending mandate with an obligation to reduce GHG intensity of fuels on a well-to-wheel basis. The new scheme is based on a technological neutral regulation, which promotes the use of RE-fuels with low GHG-intensity including new fuels such as Power-to-X based fuels. The obligation to reduce the GHG intensity of fuels is phased in from 3,4 % in 2022-2024 increasing to 5,2 % in 2025, 6 % in 2028 and 7 % in 2030. The target is estimated to reduce the CO2-emission by 0,7 mio. ton in 2025 and 1,4 mio. ton by 2030.	3_18: Low carbon fuels	Regulatory	Implemented	Transport	CO2	2022	The Danish Ministry of Climate, Energy and Utilities	600	1300

Measures in the transport sector (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]	Estimates of GHG emission reductions (kt CO_2 eq)[j, k]
									2025	2030
4-TR-23: Allocated funds for green transport – The ferry subsidy scheme to support the green conversion of domestic ferries 2021-2022	A subsidy scheme of total DKK 285 million in 2021-2022 for green transition of ferries was agreed upon in two political agreement in the spring/summer of 2021. The fund was allocated to the transition of ferries. Grants could be applied for the acquisition or leasing of new green ferries or for the retrofit of existing ferries. The grant also included any investments in necessary port adaptations.	3_18: Low carbon fuels, 3_19: Electric road transport, 3_22: Improved transport infrastructure	Regulatory, Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-25: Climate-friendly cooperation agreements on green public transport	Since June 2020 the Minister for Transport has agreed with municipalities and regions on "Climate-cooperation agreements on green public transport". With the agreement municipalities and regions are obliged to buy CO2-neutral or zero-emission busses whenever their old (diesel)busses needs to be replaced.	3_19: Electric road transport	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-26: Government subsidy for the purchase of four battery trains and charging infrastructure for battery trains in Holstebro and Skjern	DKK 230 mio. (2021-prices) was allocated for the purchase of four battery trains. The line between Holstebro and Skjern will be the first line with battery train operation in Denmark from 2025. The investment provides the opportunity to gain the necessry experience with battery train operation prior to the roll-out of battery train on other lines.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2023 (purchase) and 2025 (effect)	Ministry of Transport	NE	NE
4-TR-27: Funds have been set aside for a green mobility model, where the traffic models that form the basis of decisions in the transport area are further developed, cf. agreement on IP35	DKK 6 million annually from 2022 to 2035 allocated for a green mobility model. The funding will support a further developement of traffic models that form the basis of decisions in the transport area.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-28: Funds to improve cycling facilities along the state road network, cf. agreement on IP35	DKK 3 billion for construction and improvement of bike lanes, as well as development and analysis for advancing and promoting cycling infrastructure.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-29: Plan and funds (approximately 100 mio. euro) for the establishment of 25 recharging stations for heavy vehicles, cf. agreement on IP35	A total allocation of DKK 763 million (2024-prices) towards the deployment of 25 recharging stations along the TEN-T road network in Denmark. A plan for the roll out of the 25 stations have been adopted which ensures that Denmark will live up to the AFI-regulation with regards to recharging stations aimed at heavy duty vehicles.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-30: Funds for advisory center for bicycle promotion.	DKK 4 million for advisory center for bicycle promotion. The advisory center will provide companies with advice on how to promote cycling, as well as provide advice in which ways electric bikes can partly cover the transport of goods.	3_22: Improved transport infrastructure, 3_17: Modal shift to public transport or non-motorized transport	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-31: Funds for the promotion of infrastructure for cycling, cf. agreement on Green transformation of road transport 2020.	DKK 10 million in 2024 for publicly accessible charging facilities for electric bikes. The initiative is financed by the Danish takeover of the EU's recovery facility.	3_22: Improved transport infrastructure, 3_17: Modal shift to public transport or non-motorized transport	Economic	Adopted	Transport	CO2	2024	Ministry of Transport	NE	NE
4-TR-32: Subsidy for charging infrastructure for battery trains on the private railway lines.	A subsidy scheme of total DKK 275 million in 2025-2035 for charging infrastructure for battery trains on private railway lines was agreed on in September 2022. A region can get up to 65 per cent of the establishing cost covered per railway line.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2025	Ministry of Transport	NE	NE
4-TR-33: Funds for the devlopment of charging infrastructure for light duty vehicles, Infrastructure Plan 2035	Investments of DKK 500 million in charging infrastructure along the state road network in the periode 2022-2030. The funds will secure a high level of service for charging on longer car trips along the national road network.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-34: Port subsidy scheme to support establishment of e.g. wharves, piers, road infrastructure at the port and on shore power supply, cf. agreement on Infrastructure Plan 2035 (IP35)	50 mio. DKK allocated to a port subsidy scheme to support the establishment of e.g. wharves, piers, road infrastructure at the port and on shore power supply	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2022	Ministry of Transport	NE	NE
4-TR-35: Port and Fishing subsidy scheme to promote a green transition of ports and transition efforts within fishing and related ancillary industries.	25 mio. DKK allocated for a port and fishery subsidy scheme to help support a green transition of ports and transition efforts in the fishing industry and related secondary industries	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2021	Ministry of Transport	NE	NE
4-TR-36: CO2-neutral charging infrastructure on the state railways	DKK 750 mio. (2021-prices) was allocated for the establishment of the necessary charging infrasturcture for battery train operation on the state railway lines that are not planned to be fully electrified. The charging infrastructure on the first line is expected to be ready for battery train operation around 2025.	3_22: Improved transport infrastructure	Economic	Adopted	Transport	CO2	2021 (funds) and around 2030 (effects)	Ministry of Transport	NE	NE

Measures in the household (residential) sector (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]
									2025	2030
5-HO-01: Minimum energy requirements for buildings and Energy performing certificates for buildings	Denmark has a long experience with energy efficiency and energy savings in buildings. From 1990 to 2022 energy consumption for heating has been reduced by 29.7% per m2. All new buildings must, according to the Danish building code, be constructed as nearly zero-energy buildings (NZEB). The benefits of reducing energy consumption are tangible: less fossil fuel is consumed and the environment has improved substantially. Strict and progressively tightened building regulations since 1977 have ensured a stable demand for energy-efficient building technologies. Energy labelling of buildings must be implemented after finishing the construction of a building and on the sale or rental of the building - primarily heating consumption. This applies in principle for all buildings, irrespective of size, apart from production facilities, factories etc. The energy performance is expressed by a numeric indicator of primary energy in kWh/m2 per year based on the primary energy factor. The Energy Performing Certificate (EPC) consist of an energy label and an energy plan. For publicly owned buildings over 250 m2 the EPC must be prepared regularly every ten years. Furthermore all large buildings over 600 m2 which are frequently visited by the public must display a valid EPC in a prominent place clearly visible to the public. Most new buildings shall, according to the Danish Building Code, declare the total CO2-eq emission from the lifecycle of the building, according to EN 15978. The obligatory modules are A1-A3, B4, B6, C3, C4 and D. Buildings larger than 1000 m2 shall in addition to this also live up to a limit value of 12 kg CO2-eq/m2 per year using the same modules, except for D.	2_10: Efficiency improvements of buildings	Regulatory, Information	Implemented	Energy	CO2, CH4, N2O	1997	Ministry of Social Affairs, Housing and Senior Citizens (building code) and the Danish Energy Agency (EPC)	NE	NE
5-HO-02: Ecodesign and energy labelling of electric appliances	Minimum energy requirements (ecodesign) and energy labelling of appliances: The European Community also has mandatory energy requirements for some 20 energy-consuming products, such as electric motors, circulators, white goods etc. There are also voluntary labelling schemes (Energy Star, Energy Arrow, windows, boilers) for a number of products. The European Community has mandatory ecodesign requirements for more than 30 energy-related product groups, such as electric motors, circulators, white goods, etc. A majority of these product groups are also covered by mandatory energy labelling (A-G) displaying the energy performance of products and other relevant product information to the end-user. Danish authorities play an active role both in negotiation of the requirements and in securing compliance with the compulsory requirements - e.g. through market surveillance. The Danish Energy Agency offers advice on its website to end-users in order to promote energy-efficient appliances and products.	2_11: Efficiency improvement of appliances	Information	Implemented	Energy	CO2, CH4, N2O	1992	The Danish Energy Agency, The Danish Safety Technology Authority	NE	NE
5-HO-03: Substitution of individual oil, gas and pellet based furnaces	This support scheme supplies subsidies for companies, which offer electric heat pumps on subscription for private year-round housing. The subsidy pool among others is designed to give aid to citizens who wish to convert to an electric heat pump, but who have limited financing opportunities. The subsidy will amount to approximately DKK 25.000 per electric heat pump on average.	2_14: Demand management/reduction	Economic, Information	Implemented	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	IE (HO-09)	IE (HO-09)
5-HO-04: Better Houses	"BetterHouses" is a scheme (voluntary and market-driven system) from the Danish Energy Agency focusing on energy renovation of buildings. The aim is to make it easier for owners of buildings, mostly homeowners, to energy renovate by creating a "one stop shop" for energy renovation, where the owner only has to contact one certified building contractor and to get an overall counselling on energy renovation of the entire building. Skilled workmen are educated under the BetterHouses program to be advisors on energy renovation. The Danish Energy agency approves the BetterHouses firms and professionals like architects, engineers, craftsmen, energy consultants and building designers can take training courses to become BetterHouses advisors. The training is carried out at academies of higher education. A Better Houses advisor can manage the process and can follow the project all the way from plan to completed renovation.	2_10: Efficiency improvements of buildings	Information	Implemented	Energy	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE
5-HO-05: Strategy for Energy renovation of buildings	The long-term renovation strategy supports the renovation of the national stock of residential and non-residential buildings. The strategy shall contribute to the fulfilment of the EU's long-term goal for 2050 of reducing greenhouse gas emissions by 80-95% compared with 1990. The goal is to achieve a highly efficient and decarbonised building stock by 2050 and facilitate the cost-effective transformation of existing buildings into nearly zero-energy buildings (NZEBs). The strategy includes the status of energy efficiency of buildings in Denmark, normative instruments (e.g. component-specific requirements in connection with renovations), financial instruments (e.g. taxes and grants) and informative instruments (e.g. information for citizens, energy rating of buildings or additional training of tradesmen).	2_10: Efficiency improvements of buildings	Information, Education, Research	Implemented	Energy	CO2, CH4, N2O	2014	The Danish Energy Agency	NE	NE

Measures in the household (residential) sector (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
5-HO-08: Phasing out of oil and gas boilers by subsidies for conversion to green solutions [= 5-HO-03 changed and enhanced]	Reducing energy consumption by increasing energy efficiency and promoting energy saving is a very important element for Danish energy policy, hence phasing out oil-, and gas boilers alongside other less efficient heating sources by subsidies for conversion to green solutions have been essential towards fulfilling the ambitions of the climate agreements. This is through various support schemes, subsidising these conversions to more green alternatives in various models, ranging from one-time subsidies to the individual citizen to subscription solutions, which aid citizens who wish to convert to an electric heat pump, but who have limited financing opportunities.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	IE	IE
5-HO-09: Increase in allocated funds for phasing out oil and gas boilers until 2025 [= 5-HO-03 and 5-HO-08 further enhanced]	Reducing energy consumption by increasing energy efficiency and promoting energy saving is a very important element for Danish energy policy. With the increased interest seen from both a political perspective besides the immense interest seen from the public, further grants have been granted to the support schemes for phasing out oil-, and gas boilers by subsidies for conversion to green solutions.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2021	The Danish Ministry of Climate, Energy and Utilities	200	350
5-HO-10: Grants for green housing improvements (the Building Pool)	The Building Pool targets energy savings in private year-round housing. The subsidy pool i.e. supports the replacement of oil and gas burners with heat pumps (i.e. reduction in CO2-emissions from the individual heating sector), insulation of the climate screen and optimization of the operation of the building. In 2023, the pool is split into two pools; one for replacement of oil and gas burners with heat pumps (Heat pump pool) and one for energy optimizations i.e. insulation of the climate screen (Energy Renovation pool). The funding was split in 70% for the Heat Pump Pool and 30% for the Energy Renovation Pool in 2023. The allocation for 2024-2026 is to be decided politically but has not happened yet.	2_10: Efficiency improvements of buildings, 2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	NE	NE
5-HO-11: Grants for individual heat pump when scrapping oil- or gas boilers (The Scrapping Scheme)	The scrapping scheme targets oil, gas and biomass boiler owners who wants to change their heating source to a subscription-based heat pump. The subsidy pool i.e. supports the conversion into a green heating solution by making it possible to rent instead of buy a heat pump, i.e. for lower-income groups. The Scrapping Scheme contains 211 mio. DKK in total in 2020-2026.	2_14: Demand management/reduction	Economic	Adopted	Energy	CO2, CH4, N2O	2020	The Danish Energy Agency	NE	NE

Measures in the Industrial Processes sector (1 row/1 row)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
6-IP-01: Regulation of use of HFCs, PFCs and SF6 (phasing out most of the uses) - Statutory order on fluorinated greenhouse gasses	Import, sale and use of the substances or new products containing the substances is forbidden from 1 January 2006 with some exceptions.	4_28: Replacement of fluorinated gases by gases with a lower GWP value	Regulatory	Implemented	Industrial processes and product use	HFCs, PFCs, SF6	2006	The Danish Environmental Protection Agency	NE	NE

Measures in agriculture, forestry and fisheries (page 1/2) [See also the table with measures in the LULUCF sector]

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]	Estimates of GHG emission reductions ($kt\ CO_2\ eq$)[j, k]
									2025	2030
7-AG-04f: Environmental Approval Act for Livestock Holdings	The measures covered by the Environmental Approval Act for Livestock Holdings are: • 300 m buffer zones around ammonia sensistive areas where no extension of livestock farms can take place if such an extension would lead to increased ammonia deposition in natural areas vulnerable to ammonia. • Demand for reduction of ammonia emissions relative to production facility with lowest ammonia emission norm: 2007: 15%, 2008: 20%, 2009: 25% • Demands for injection of animal slurry on black soil and grass within buffer zones (1 km from vulnerable natural areas). • Demand for fixed cover on most new containers for solid manure and slurry tanks (depending on distance to neighbours and vulnerable natural areas). • Reduced number of Livestock Unit per hectare (LU/ha) when in nitrate vulnerable areas with low denitrification capacity • Regulation of phosphorous surplus on manure spreading areas	6_39: Reduction of fertilizer/manure use on cropland, 6_40: Improved livestock management, 6_42: Improved animal waste management systems	Regulatory	Implemented	Agriculture	CH4, N2O	2007	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-06: Biogas plants - reporting of annual mandatory leak detection and repair	In 2019, a targeted effort to reduce methane emissions from Danish biogas plants was initiated. The findings from the project showed higher emissions than formerly assumed from the production of biogas. This resulted in the formulation of new regulation, which was put into effect January 1st 2023. The regulation dictates the reporting of annual mandatory leak detection and repair to the Danish Energy Agency, regular self-monitoring, as well as a 1 % limit on methane loss from upgrading facilities. It is expected that a new campaign to measure the effect of the regulation will take place in 2025.	6_42: Improved animal waste management systems, 1_01: Increase in renewable energy sources in the electricity sector, 1_03: Switch to less carbon-intensive fuels	Regulatory	Implemented	Agriculture, Energy	CH4	2023	The Danish Energy Agency	NE	NE
7-AG-13: Agreement on Nature (the Nature Package)	Political agreement aiming, amongst other goals, towards an increased protection of biodiversity. The agreement states initiatives within the following areas: Converting forests for biodiversity purpose, continued agreements for nature, nature and biodiversity, urban nature and outdoors recreation, open land management and the farmer's role as resource manager, modern nature conservation, and simplification of legislation.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture, LULUCF	CO2, CH4, N2O	2016	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-15: Pool for the promotion of biogas and other green gases by tender	The Climate Agreement introduces an aid scheme for the production of "biogas and other green gasses." According to the Climate agreement, the aid scheme will consist of six successive competitive bidding processes based on clear, transparent and non-discriminatory criteria, where producers of biogas and gasses based on renewable energy sources compete for the aid. The aid will be granted as operating aid for a period of 20 years in the form of a price premium in addition to the market price of the gas produced. The bids will be assessed based on the premium and the offered volume . Fully implemented in 2030 the scheme aims at reducing emmission by 0,7 mil. tonnes CO2e/yearly by producing 10 PJ biogas and e-methane.	6_42: Improved animal waste management systems, 1_01: Increase in renewable energy sources in the electricity sector, 1_02: Increase in renewable energy in the heating and cooling sector	Economic	Adopted	Agriculture, Energy	CH4	2024 (expected)	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-16: Separate nitrogen standards for humus soils	In 2020 a separate standard has been established for humus soils, which implies that nitrogen standard for crops and grass in rotation is reduced by 25 or 50 kg / N per hectare depending on crop type.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture	N2O	2020	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-17: Adjustment of utilization requirements for livestock slurry and manure	In 2020 the utilization requirements in the DK Fertilizer Order has been adjusted, so that a larger share of the amount of nitrogen applied from livestock slurry and manure must count towards compliance with the farmers nitrogen quota.	6_41: Other activities improving cropland management	Regulatory	Implemented	Agriculture	N2O	2021	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-18: Prohibition of fertilization and spraying, etc. on §3 areas (Protected areas)	In 2020 a ban of fertilization and spraying on §3 protected areas was adopted. The proposal aims to ensure that spraying, fertilizing and plowing no longer take place on a number of meadow areas with a total area of 37,000 hectares, which are covered by the Nature Conservation Act.	6_41: Other activities improving cropland management	Regulatory	Adopted	Agriculture	N2O	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-19: Subsidy for biogas (for transport and processes)	The aid scheme for biogas towards transport and process was introduced with the Energy Agreement of 2012. In order to comply with the scheme requirements, biogas sold for direct use in the transport sector can not be produced from energy crops. Furthermore, recipients must live up to national and RED2 sustainability requirements and reporting obligations. As of January 1st 2020, the scheme was closed for new applicants and a production-based cap on potential aid was introduced. The aid scheme can go until 2032 and at least 20 years for the individual scheme recipients.	6_42: Improved animal waste management systems	Economic	Implemented	Agriculture, Energy	CH4	2012	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-20: Subsidy for upgrading and purification of biogas	The aid scheme for biogas towards upgrading and purification of biogas was introduced with the Energy Agreement of 2012. In order to comply with the scheme requirements, recipients must live up to national and RED2 sustainability requirements and reporting obligations. As of January 1st 2020, the scheme was closed for new applicants and a production-based cap on potential aid was introduced. The aid scheme can go until 2032 and at least 20 years for the individual scheme recipients.	6_42: Improved animal waste management systems	Economic	Implemented	Agriculture, Energy	CH4, CO2	2012	The Danish Ministry of Climate, Energy and Utilities	NE	NE
7-AG-22: Ecological area support (Ecoscheme)	One-year scheme supporting both the conversion towards and maintenance of organic farming of agricultural land, in order to reach a doubling of the organic land in 2030.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-23: Environmentally and climate-friendly grass (Ecoscheme)	One-year scheme supporting the postponement of ploughing of grasslands which achieves an environmental and climate effect on the individual area. Furthermore, it contributes to improved microbiology and soil fertility.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-24: Plants (Ecoscheme)	One-year scheme promoting greater crop diversity in agriculture by supporting increased crop diversification and the cultivation of rotational crops (mainly used for food and protein crops).	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE

Measures in agriculture, forestry and fisheries (page 2/2) [See also the table with measures in the LULUCF sector]

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
7-AG-25: Biodiversity and sustainability (Ecoscheme)	One-year scheme supporting the laying out of non-productive agricultural areas to provide more habitats for animals and plants. The subsidy builds on the GLM8 requirement of at least 4 per cent. non-productive areas on arable lands.	6_45: Other agriculture. , 7_56: Other land use, land-use change and forestry	Economic	Adopted	Agriculture, LULUCF	N2O, CH4, CO2	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-26: Implementation of "targeted regulation"	The "targeted regulation" is a two-part regulatory scheme related to the objectives of the Water Framework Directive; a voluntary subsidy scheme focused on the reduction of nitrate leaching from agricultural soils through the use of a variety of measures, and - in the event of a lack of voluntary effort - a requirement to establish the measures without compensation will be imposed. The nitrate reducing measures will cause derivative effects on greenhousegas emissions. This encompasses reductions of indirect nitrous oxide emissions and increase of carbon sequestration in soil.	6_39: Reduction of fertilizer/manure use on cropland, 6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems, 6_43: Activities improving grazing land or grassland management, 6_44: Improved management of organic soils	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-28: Environmental and climate technology	Subsidy for investment in environmentally and climate-friendly technologies on the farm - such as subsidies for methane reducing feed additives (the effects shown).	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	160	440
7-AG-29: Organic investment support	Subsidies for investments in new technologies, in order to improve the competitiveness of organic farming, strengthen efforts to improve the climate, and contribute to the national effort to double the organic area.	6_45: Other agriculture.	Economic	Adopted	Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-30: Collective actions measures to reduce nitrogen emissions	Consists of four voluntary subsidy schemes that contribute to reducing nitrogen emissions into Danish waters (restoration of nitrogen wetlands, restoration of mini-wetlands, afforestation and restoration of peatland). The estimated effects stem from efforts since the adoption of the Agreement on Agriculture in 2021.	6_44: Improved management of organic soils, 7_54: Prevention of drainage or rewetting of wetlands	Economic	Adopted	Agriculture, LULUCF	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	310	640
7-AG-31: General reduction requirement for cattle	Reduction requirements regarding methane from cattle via increased fat in cattle feed or use of new measures such as feed additives, e.g. Bovaer.	6_40: Improved livestock management	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4	2021	The Ministry of Food, Agriculture and Fisheries	170	160
7-AG-32: More frequent discharge of pig manure	Reduction of greenhouse gas emissions from pig manure via requirements for more frequent discharge of manure from pig barns to an outdoor cooler storage or biogas plant, which reduces emissions.	6_40: Improved livestock management	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4	2021	The Ministry of Food, Agriculture and Fisheries	150	170
7-AG-33: CAP-law	Authorization Act that brings together existing legislation and implements EU's agricultural policy from 2023. In the act, authorization is given to determine basic requirements and establish eco-schemes.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Other (Voluntary/negotiated agreements), Information, Regulatory	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE
7-AG-34: Implementation of EU's agricultural policy	Implementation of the overall milestones in the Danish strategic CAP plan. The strategic CAP plan was submitted to the Commission in December 2021 and approved by the Commision on 31 August 2022. Only the estimated effects in Denmark of the reform of the EU Common Agricultural Policy (CAP) are shown.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Other (Voluntary/negotiated agreements), Information, Regulatory, Economic	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	380	380
7-AG-35: Conditionality (GLM-requirements)	Good agricultural and environmental conditions (GLM) are the basic requirements (baseline) that a farmer must meet in order not to get his agricultural support received from pillar I reduced as well as area payments from pillar II. The requirements apply from 2023.	6_40: Improved livestock management, 6_41: Other activities improving cropland management, 6_42: Improved animal waste management systems	Economic	Adopted	Agriculture	CH4, N2O	2023	The Ministry of Food, Agriculture and Fisheries	NE	NE

Measures in the Land-use, Land-use change and Forestry sector (LULUCF) (page 1/1)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
8-LU-01: Ban on burning straw on fields	One of the measures with an effect on return of carbon to the soil has been the ban on burning of straw residues on fields. The ban has resulted in greater return of carbon to the soil, and therefore increased carbon storage in the soil, as well as increased use of straw as a fuel. Both uses will result in a net reduction in CO2 emissions. Not burning straw prevents the methane and nitrous oxide emissions associated with the burning. On the other hand, there are some emissions of nitrous oxide in connection with the return of nitrogen to the soil when the straw is mulched. The measure works by regulating behaviour, and the ban was introduced from 1990. The measure was implemented in the form of a statutory order under the Environmental Protection Act, and compliance is monitored by the local authorities. The objectives are conservation of carbon in agricultural soils and reduction of air pollution.	7_55: Restoration of degraded lands, 6_44: Improved management of organic soils	Economic	Implemented	LULUCF, Agriculture	CO2	1989	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-04: Public afforestation (state and municipalities)	The majority of new public forests are stateowned. The purpose of new state forests is to establish resilient and multifunctional forests, e.g. recreational nature close to cities/users, groundwater protection, carbon storage, nutrient reduction and support biodiversity in generel. The projects are etablished as a collaboration between state, municipalities and (often) waterworks - who each contributes financially. The Danish Nature Agency etablish approximately 300 hectares each year. On-going implementation through annual budgets.	7_46: Afforestation and reforestation	Regulatory, Other (Voluntary/negotiated agreements)	Implemented	LULUCF	CO2	1989	Ministry of Environment of Denmark	NE	NE
8-LU-08: Establishment of the Danish Climate Forest Fund to support climate efforts	The Danish Climate Forest Fund is an independent, governmental administrative unit under the Danish Ministry of the Environment. The fund was adopted by Danish law in 2020 and established in 2021. The purpose of the fund is to support the Danish climate policy by cost-efficiently enhancing carbon removal by afforestation as well as by reestablishment of wetlands on organic soils funded by donations from private companies, funds, citizens and government departments.	7_46: Afforestation and reforestation, 6_44: Improved management of organic soils, 7_55: Restoration of degraded lands	Economic	Implemented	LULUCF, Agriculture	CO2, N2O	2021	Ministry of Environment of Denmark	NE	NE
8-LU-11: Subsidy for restoration of peatland (CAP+national)	Reduction of greenhouse gas emissions from carbon-rich low-lying soils by reverting the soils, herreafter the natural water level will be restored and the wetlands reestablished - which reduces CO2 emissions.	7_54: Prevention of drainage or rewetting of wetlands, 7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	CO2	2020	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-12: Extensification of carbon rich soils (Ecoscheme)	Promotion of an extensive use of carbon-rich peat soils or associated areas by removing biomass and enforcing a ban on fertilization. Thereby preparing the soils for a possible later rewetting. The effects shown stem from setting aside 22 000 ha of low-lying soils including peripheral areas.	7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	N2O, CH4, CO2	2022	The Ministry of Food, Agriculture and Fisheries	40	330
8-LU-13: Private afforestation	The scheme support afforestation on agricultural areas owned by private parties or municipialities. The scheme aims at reducing nitrogene leakage in water bodies and contributes in reducing CO2 emissions.	6_44: Improved management of organic soils, 7_46: Afforestation and reforestation	Economic	Adopted	LULUCF, Agriculture	CO2, N2O	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-14: Temporary reduction in logging	Temporary reduced harvesting in state owned forest during 2026 to 2031.	7_47: Conservation of carbon in existing forests	Regulatory	Adopted	LULUCF, Agriculture	CO2	2022	The Ministry of Food, Agriculture and Fisheries	NE	NE
8-LU-15: Permanent extensification	Compensation for permanent extensification of agricultural land (all types of land) and enforcing a ban on fertilization. Thereby preparing the soils for a possible later rewetting and nature restoration. The effects shown stem from setting aside 22 000 ha of low-lying soils including peripheral areas.	7_56: Other land use, land-use change and forestry, 6_44: Improved management of organic soils	Economic	Adopted	LULUCF, Agriculture	N2O, CH4, CO2	2025	The Ministry of Food, Agriculture and Fisheries	NA	300

Measures in the waste sector (page 1/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument[g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
9-WA-01: A ban of landfill of combustible waste.	In 1996 the Statutory Order on Waste was amended to introduce an obligation for municipalities to assign combustible waste to incineration (corresponding to a stop for disposal of combustible waste at landfills) from 1 January 1997. As a result of this, large quantities of combustible waste that used to be disposed of at landfills are now either recycled or used as fuel in Danish incineration plants.	5_35: Waste incineration with energy use, 5_37: Reduced landfilling	Regulatory	Implemented	Waste management	CH4	1997	Municipalities	NE	NE
9-WA-02: The waste tax	A tax is imposed on waste for incineration or landfilling. The taxes are DKK 475 per tonne for landfilling and DKK 60,9/GJ for incineration.	5_37: Reduced landfilling	Economic, Fiscal	Implemented	Waste management	CH4	1987	Danish Ministry of Taxation	NE	NE
9-WA-03: Weight-and-volume-based packaging taxes	Weight-and-volume-based taxes (e.g. on various packaging, carrier bags and PVC film) encourage a reduction in packaging consumption and thus the quantities of waste. The weight-based tax is based on an index that reflects the environmental burden of the materials used.	5_30: Demand management/reduction	Economic, Fiscal	Implemented	Waste management	CO2, CH4	2014	Danish Ministry of Taxation	NE	NE
9-WA-06: Implementation of the EU landfill directive	On the basis of the EU Landfill Directive, demands on the establishment and operation of landfills in Denmark have been tightened with Statutory Orders No. 650 of 29 June 2001, No. 252 of 31 March 2009, No. 719 of 24 June 2011 and No. 1049 of 28th of August 2013 on landfills. According to the Statutory Orders on landfills, methane in landfills for mixed waste must be monitored. From landfills where significant amounts of biodegradable waste are disposed of, methane gas must be managed in an environmentally-sound way.	5_34: Improved landfill management	Regulatory	Implemented	Waste management	CH4	1999	The Environmental Protection Agency	NE	NE
9-WA-09: Subsidy programme for biocovers on landfills	Biocovers is a technique that uses compost as a cover on landfills. The microorganisms in the compost increases the oxidation of methane in the top layer.	5_34: Improved landfill management	Economic	Implemented	Waste management	CH4	2017	The Environmental Protection Agency	NE	NE
9-WA-10: Prohibition of free plastic bags and thin plastic bags	As of 1 January 2021, the following carrier bags may not be handed out free of charge at points of sale for goods or products: - Plastic carrier bags with a handle that is thicker than 30 micrometers (eg ordinary carrier bags in supermarkets) - Plastic carrier bags without a handle that are thicker than 30 micrometers - Carrying bags with handles of materials other than plastic In addition, plastic bags thinner than 30 micrometers are completely prohibited. Plastic bags thinner than 15 micrometers with no handle are excempted from the ban.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Implemented	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-11: Triple the tax on carrier bags and disposable tableware	The tax on carrier bags and disposable tableware was trippled as of January 2020 with the aim of reducing consumption and waste.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Economic, Fiscal	Implemented	Waste management	CO2	2020	Danish Ministry of Taxation	NE	NE
9-WA-12: Requirements for the possibility of direct reuse at municipal recycling stations	All municipal recycling stations are obliged to make a designated spot available where citizens can hand in objects with the purpose of direct reuse of the objects. The objects should be made available first to private agents such as voluntary organisations and citizens.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	[2023 /2024]	Ministry of Environment of Denmark	NE	NE
9-WA-13(G): Streamlining the sorting of business household-like waste	The guidelines and criteria for the sorting of household-like waste from businesses are streamlined nationally and made mandatory and follows the sorting criteria for households for 10 wastefractions. The national wastepictograms for the 10 wastefraction of householdwaste must be used on the collectionbins (the bins collected by the wastecollector). The national guidelines, including the usage of waste pictograms, have been implemented in 2022.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2022	Ministry of Environment of Denmark	NE	IE
9-WA-14(G): Streamlining and mandatory collection schemes for household waste	The guidelines and criteria for the sorting and collecting of household waste are streamlined nationally and made mandatory. The national wastepictograms for the 10 wastefraction of householdwaste must be used on the collectionbins (the bins collected by the wastecollector). The national guidelines, including the usage of waste pictograms, must be imlemented and followed across all municipalities. For the following waste fractions separate collection are made mandatory: Food, paper, cardboard, metal, glass, plastic, textiles (as of 2023), carton packaging from food and drink, hazardouz waste, and general waste. There are possibility for combined collection of some fraction e.g. paper/cardboard, plastic/foodcartons and plastic/foodcartons/metal.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-15(G): Streamlining with mandatory collection scheme for household textile waste	As of 2023, it has been mandatory for the municipalities to include textile waste as a seperate waste fraction in the provided waste collections scheme. Regarding the implementation of the waste collection of textile waste it is important that voluntary organisations have easy access to textiles able to be reused.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2023	Ministry of Environment of Denmark	NE	IE
9-WA-16: Waste sorting in the public space	Waste sorting in the public space will be improved, especially in the public spaces with most people and most waste. A scheme for the collection of plastic waste in the public space will be implemented. The new and improved sorting and collection of waste in public areas will be implemented together with PPWR-initiatives on wast sorting medio 2026. It will be analyzed whether or not part of the waste managing in public spaces can be funded through waste fees.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2026	Ministry of Environment of Denmark	NE	NE

Measures in the waste sector (page 2/2)

Name[c]	Description[d, e, f]	Objectives	Type of instrument [g]	Status[h]	Sector(s) affected[i]	Gases affected	Start year of implementation	Implementing entity or entities	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]	Estimates of GHG emission reductions ($kt CO_2 eq$)[j, k]
									2025	2030
9-WA-17(G): Requirements for the municipalities on tenders for bulky waste schemes with re-sorting with regard to higher real recycling and reuse	Municipalities are required to specify in the tender for bulky waste schemes that a sorting must be carried out in order to achieve a high level of real recycling and preparation for reuse. The sorting will ensure that a lesser part of the bulky waste is incinerated.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-18: Demand for smaller losses in recycling plastic	The Executive Order on Waste stipulates that the municipalities must, as of 1 January 2022, set a requirement of 60 per cent actual recycling of the collected plastic waste when the waste is offered for treatment. The municipalities must ensure a high level of real recycling of all recyclable waste types.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2022	Ministry of Environment of Denmark	NE	NE
9-WA-19: Target of 50% reduction of certain plastic takeaway packaging by 2026	A target of 50 percent reduction of certain plastic take-away packaging in 2026 is set. The goal must initially be sought to be achieved through a binding agreement and collaboration with the restaurant industry. If the goal is not reached by binding agreement, further regulation must be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-20(G): National implementation of extended producer responsibility for packaging	The national implementation of the extended producer responsibility for packaging must be introduced no later than January 1st 2025. This will include all types of packaging in all types of materials. The extended producer responsibility must ensure that Denmark achieves the recycling targets for packaging in 2025 and 2030 by creating a strong financial incentive for reducing packaging, reusing packaging, and designing packaging that is easy to recycle and in high quality.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	IE
9-WA-21: Target of 50% sorting of plastic for recycling in the agricultural sector	As an initiative in the Danish climate agreement of June 2020 for a green waste sector and circular economy a sectoral coooperation with the agricultural sector has been established. The goal of the cooperation is to sort out 50% of plastic waste for reuse in 2025 from the aggricultural sector and 80% of plastic waste for reuse in 2030 from the aggricultural sector. As of 2020, approximately 25% of plastic waste from the aggricultural sector is reused. If the sectoral cooperation cannot document the necessary progress by the end of respectively 2023 and 2027 to achieve the goals, new iniatives will be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-22: Target of 50% sorting of plastic for recycling in the construction sector	As an initiative in the Danish climate agreement of June 2020 for a green waste sector and circular economy a sectoral coooperation with the construction sector will be established. The goal of the cooperation is to sort out 25% of plastic waste for reuse in 2025 from the construction sector and 75% of plastic waste for reuse in 2030 from the construction sector. If the sectoral cooperation cannot document the necessary progress by the end of respectively 2023 and 2027 to achieve the goals, new iniatives will be implemented.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-23: New model for waste management to ensure increased recycling	The new and improved Danish waste inspection will be targeted at the companies with the greatest risk of non-compliance, and where the environmental risk of not complying with the waste rules is the greatest.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-24: Productivity gain on increased recycling of plastics through the synergy effect between a clear framework for the sector, the market gaining access to both household and acquired waste and the increase and streamlining of waste streams	As a result of the Danish climate agreement of June 2020 for a green waste sector and circular econony a productivity gain on the increased recycling of plastics is expected. This is due to an expected synergy effect of the several initiatives in the agreement. This includes a clear framework for the sector, the market gaining access to both household and acquired waste and the increase and streamlining of waste streams.	5_30: Demand management/reduction, 5_31: Enhanced recycling	Regulatory	Adopted	Waste management	CO2	2021	Ministry of Environment of Denmark	NE	NE
9-WA-25(G): Ceiling over nitrous oxide emissions from large treatment plants	By political decision, limits for nitrous oxide emissions from treatment plants that treat waste water that is the equivalent of at least 30,000 people's effluent (PE) will be introduced from 2025 onwards. These limit values are introduced to ensure that the total effluent from waste water treatment drops by 50 percent compared to today. Based on preliminary experience, it will, no later than 2025, be discussed by the political parties whether this limit should also be introduced for treatment plants that treat waste water that is the equivalent of less than 30,000 PE. Nitrous oxide emissions from treatment plants is the main source of greenhouse gas emissions from the Danish waste water utilities, but ongoing projects indicate a potential for significant emission reductions by implementing improvement initiatives. This includes adjusting the advanced online control of the aeration and dosing of a carbon source as well as lowering of the specific ammonium loading, taking into account the nitrous oxide emission.	5_36: Improved wastewater management systems	Regulatory	Adopted	Waste management	N2O	2025	Ministry of Environment of Denmark	NE	IE
Group WA: WA13+WA14+WA15+WA17 +WA20+WA25+EN07	See the individual measures.	IE	IE	IE	IE	IE	IE	IE	NE	700

Annex B3 Methodologies and assumptions used to estimate the greenhouse gas emission reductions or removals

To the extent possible, estimates of expected and achieved greenhouse gas emission reductions for the policies and measures described in this biennial transparency report, is included in the tabular formats included in chapter 2.4.3, Annex B2 and in the tabular format reported electronically in the Common Tabular Format (CTF, Table 5).

To the extent available, information on the methodologies and assumptions used to estimate, to the extent possible, the greenhouse gas emission reductions or removals for the policies and measures described in this biennial transparency report, is introduced in English below. Details of the guidance to be used for the estimations of the effects of policies and measures on green house gas emissions as well as the guidance to be used for the estimations of other effects on environment and nature and the guidance on calculating the social cost of a policy or measure are available in Danish through the links included below.

Since the agreement on the climate act in 2019, there has been a markedly increasing focus on the need to ensure that the effects of climate measures and new solutions (e.g. new technology) can be reflected in Denmark's national emissions inventory.

Denmark's national emissions inventory for greenhouse gas emissions is Denmark's official climate account. The emissions inventory is prepared in accordance with the UN climate convention (UNFCCC) once a year and collects and calculates all greenhouse gas emissions from the Danish territory.

The emissions inventory is compiled by DCE - National Center for the Environment and Energy under Aarhus University and is prepared based on a number of principles for scientific and statistical documentation summarized in a set of guidelines under the UN's intergovernmental panel on climate change (IPCC). In the legal notes to the Danish climate act, it is stated that the climate act's targets include greenhouse gas emissions from the Danish territory, and that the greenhouse gas emissions are calculated in accordance with the guidelines adopted under the UNFCCC. The national emissions inventory thus forms the basis for meeting both Denmark's national climate targets and Denmark's commitments in the EU.

In order to be able to assess the final achievement of the Danish climate targets, it is therefore important that the pursued climate policy can be documented based on the requirements and instructions found in the guidelines that form the basis for the emissions inventory. As regards Denmark's contribution to the EU's overall climate targets and the fulfillment of Denmark's EU reduction commitments towards 2030, it applies that the emission reduction effects of new climate policies and measures, e.g. new technologies, will only be taken into account if the effects can also be taken into account in the emissions inventory, cf. the EU's governance regulation, Article 26(4). It is therefore important that, when considering the introduction of new measures and solutions, a timely decision is made on the need for documentation of the climate effects of the measures.

Since climate policy intervenes in many different sectors, the implementation of climate measures and new technologies can spread over several ministerial areas. This may mean that various ministries are thus given the task of documenting the climate effects of policies and measures or new technologies, so that these effects can be reflected in the national emission inventories. That task can be complex and may require that measurements or effect studies have to be initiated and/or new data have to be collected on how widespread an initiative or technology is in Danish society.

Therefore, and as part of the cross-ministerial project Green research analyzes in the autumn of 2023, a guidance has been developed on how documentation of climate effects for climate measures and new solutions can be provided. The guidance is a guide to ministries with departmental responsibilities for climate measures and new technologies, which will potentially have to be included in Denmark's national greenhouse gas emissions inventory. The guidance is thus an inter-ministerial work tool prepared by the Ministry of Climate, Energy and Utilities, the Ministry of the Environment, the Ministry of Food, Agriculture and Fisheries and the Ministry of Finance in collaboration with DCE, which has to be used when a new measure with effects on greenhouse gas emissions is suggested in the government.

The *Guidance for documentation of greenhouse gas emission reduction effects* is available in Danish here (October 2024): https://www.kefm.dk/klima/vejledning-til-dokumentation-af-klimaeffekter

This guidance has focus on documentation of greenhouse gas emission reduction effects of new measures and can been seen as a further elaboration of the former general guidance for *assessment of impacts of new policies and measures on climate, environment and nature* (October 2020): https://www.kefm.dk/aktuelt/nyheder/2020/okt/regeringen-ny-politik-skal-klima-og-miljoevurderes (https://www.kefm.dk/Media/4/0/Vejledning%20om%20vurdering%20af%20konsekvenser%20for%20klima%20milj%C3%B8%20og%20natur.pdf)

In addition to assessments of the effects on climate, environment and nature, new proposals shall also be accompanied by *assessments of the social cost* of the policy or measure. For the assessments of social cost, a guidance from the ministry of Finance has to be used (the latest update is from June 2023): https://fm.dk/udgivelser/2023/juni/vejledning-i-samfundsoekonomiske-konsekvensvurderinger/

A separate guidance with focus on *social costs of new measure with effects on greenhouse gas emissions* has been developed as a guidance to all ministries (April 2024): https://www.kefm.dk/klima/metodevejledning-til-klima-og-samfundsoekonomiske-beregninger

Annex B4 A plan for the implementation of adopted policies and measures

In September, the governement's publication of the annual Climate Programme included a figure showing the plan for the implementation of policies and measures adopted through political agreements and now under implementation.

A translation of this plan is included in this Annex. The plan shows the expected time schedule for the following two steps after the adoption marked with an "A":

(1) a period or an end point (shown with a brown bar or dot "G") where the governance needed will be implemented and/or finalised and

(2) a period or an end point (shown with a orange bar or dot "S"), where the implementation in the society takes place with the estimated effects in 2025 and 2030 also shown in the figure.

Table B4(1): Timelines for implementation of selected policies and measures 2019-2030 after their adoption in 2019, 2020, 2021, 2022, 2023 or the first half of 2024, including the estimatet effects in 2025 and 2030

Sector	Policy or Measure	Estimated effects (million tonnes of CO_2 e)		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		2025	2030												
Energy demand and supply	Green restructuring of taxes on heating	-0.25	-0.35		A G	S									
	Green district heating	-0.05	-0.02		A G	S									
	Phasing out of oil and gas boilers	-0.2	-0.35		A G						S				
Industry	High and more uniform CO_2 tax	-1.2	-2.5				A		G						S
	Increase in energy tax on fossil fuels for businesses by DKK 6 per GJ	-0.5	-0.5		A			G		S					
	The business pool (adding funds)	-0.1	-0.3		A G									S	
	Denmark's Green Investment Fund (From 2023 Denmark's Export and Investment Fund, EIFO)	0	-0.2	A G				S							
Waste	Streamlined waste sorting into 10 fractions	-	-0.7		A	G		S							
	Obligation to tender for treatment of recyclable household waste	-			A		G	S							
	New organization of the incineration sector and competitive exposure of waste suitable for incineration	-			A			G							S
	Maximum emissions of nitrous oxide from wastewater treatment plants	-			A					G S					
	Extended producer responsibility for packaging and single-use plastic products	-			A					G S					
	Strengthened waste supervision and streamlined practice	-			A					G S					
Transport	Reorganization of the registration fee	-0.2	-0.5		A	G									>->
	CO2e displacement requirements for VE fuels	-0.7	-1.4		A	G									S
	Kilometer-based and CO2e-differentiated road tax	-0.2	-0.3				A	G					S		
	Sales stop in 2035 for new fossil fuel cars and vans.	-	-0.1/-0.2					A G							S
	New allowance trading system for road transport and heating of buildings (EU ETS2)	0	-0,4					A G				S			
	Increase in diesel tax and reduction in the equalization tax as well as temporary reduction in the rate of kilometer-based road tax	-0.3	-0.3						A G	S					
Agriculture	Subsidy scheme for methane-reducing feed	-0.16	-0.44						A G						>->
	Reduction requirements for livestock digestion	-0.17	-0.16			A			G	S					
	Frequent discharge of pig manure	-0.15	-0.17			A		G S							
	Reform of the EU's common agricultural policy	-0.38	-0.38			A		G				S			
	Efforts regarding nitrogen	-0.31	-0.64			A						G			S
	Set aside of 22,000 ha of low-lying soils including peripheral areas	-0.04	-0.33			A	G								S
	Set aside of 22,000 ha of low-lying soils including peripheral areas	-	-0.3	A	G										>->
Carbon Capture and Storage (CCS)	First CCUS pool of around DKK 8 billion. DKK over 20 years	-0.03	-0.43		A			G			S				
	NECCS pool of 2.6 billion DKK over 8 years	0	-0.16			A			G		S				
	CCS pool of 26.8 billion DKK over 15 years	0	-2.29				A				G				S
		Effect in 2025	Effect in 2030	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030

A	= Agreement
G	= Implementation of the Governance needed
S	= Implementation in the Society

Annex C Information on greenhouse gas inventories

This annex contains the following information:

Annex C1: Denmark's greenhouse gas inventories 1990-2022.
Summary information in the CRT-format.

Annex C2: Greenland's greenhouse gas inventories 1990-2022.
Summary information in the CRT-format.

Annex C3: The Faroe Islands' greenhouse gas inventories 1990-2022.
Summary information in the CRT-format.

Annex C4: The Kingdom of Denmark's greenhouse gas inventories 1990-2022
Summary information in the CRT-format.

Annex C1 Denmark's greenhouse gas inventories 1990-2022

This annex contains the table summarising the results of the latest greenhouse gas inventories for Denmark 1990-2022 [cf. CRT Table 6].
The information is also reported separately in the National Inventory Document (Nielsen et al., 2024a) and the Common Reporting Tables (CRT).

TABLE C1.1 (CRT TABLE 10S1): DENMARK'S EMISSIONS AND REMOVALS OF GREENHOUSE GASES (GHGS) IN THE PERIOD 1990-2022

TABLE C1.2 (CRT TABLE 10S2): DENMARK'S EMISSIONS AND REMOVALS OF CARBON DIOXIDE (CO_2) IN THE PERIOD 1990-2022

TABLE C1.3 (CRT TABLE 10S3): DENMARK'S EMISSIONS OF METHANE (CH_4) IN THE PERIOD 1990-2022

TABLE C1.4 (CRT TABLE 10S4): DENMARK'S EMISSIONS OF NITROUS OXIDE (N_2O) IN THE PERIOD 1990-2022

TABLE C1.5 (CRT TABLE 10S5): DENMARK'S EMISSIONS OF INDUSTRIAL GREENHOUSE GASES (HCFS, PFCS, SF_6 AND NF_3) IN THE PERIOD 1990-2022

TABLE C1.6 (CRT TABLE 10S6): DENMARK'S TOTAL EMISSIONS AND REMOVALS OF GREENHOUSE GASES IN THE PERIOD 1990-2022

Note references in the tables:
(1) The column "Base year" is filled with estimates for the base year under the Climate Convention which is 1990. This base year is used to calculate the percentage change in the final column of this table.
(2) Net emissions/removals as reported in table Summary 1.A. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).
(3) In accordance with the UNFCCC reporting guidelines, for Parties that decide to report indirect CO_2 the national totals shall be provided with and without indirect CO_2.
(4) In accordance with the UNFCCC reporting guidelines, HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO_2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.
(5) Includes net CO_2, CH_4 and N_2O from LULUCF.

The notation keys are as follows:
"NO" : Not Occurring,
"NE" : Not Estimated,
"NA" : Not Applicable,
"IE" : Included Elsewhere

Table C1(1) (CRT Table 10s1): Denmark's emissions and removals of greenhouse gases (GHGs) in the period 1990-2022

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			kt CO2 equivalents (kt) (3)																																	%
Total (net emissions) (4)			**77,082**	**87,096**	**82,133**	**83,163**	**86,646**	**83,965**	**96,335**	**87,294**	**83,267**	**80,912**	**76,396**	**77,466**	**78,081**	**82,831**	**76,696**	**72,143**	**80,304**	**75,819**	**70,762**	**67,315**	**66,488**	**60,555**	**55,406**	**56,817**	**52,863**	**49,161**	**52,142**	**49,676**	**51,304**	**46,438**	**43,545**	**43,444**	**41,388**	**-46**
1. Energy			**52,573**	**63,245**	**57,434**	**59,803**	**63,870**	**60,831**	**74,258**	**64,771**	**60,743**	**58,237**	**53,810**	**55,488**	**55,074**	**60,268**	**54,669**	**51,005**	**58,925**	**54,049**	**50,803**	**48,760**	**49,269**	**43,966**	**39,428**	**41,224**	**36,937**	**34,513**	**36,128**	**33,760**	**33,704**	**30,109**	**27,180**	**28,493**	**27,406**	**-48**
1.A. Fuel combustion			51,902	62,188	56,334	58,793	62,854	59,944	73,309	63,552	59,697	56,521	52,520	54,161	53,850	59,088	53,388	49,955	57,914	53,068	50,017	48,173	48,590	43,445	38,968	40,752	36,468	34,058	35,655	33,314	33,299	29,764	26,945	28,272	27,213	-48
1.A.1. Energy industries			26,249	35,150	30,226	31,853	35,949	32,603	45,021	35,857	32,237	29,148	26,105	27,422	27,633	32,366	26,463	23,229	31,119	26,417	24,310	24,225	24,103	20,117	16,929	19,128	15,617	12,902	14,083	11,606	11,522	8,721	7,350	8,322	8,197	-69
1.A.2. Manufacturing industries and construction			5,732	6,167	5,985	5,897	6,006	6,150	6,266	6,280	6,221	6,290	6,054	6,166	5,808	5,777	5,873	5,577	5,709	5,449	4,923	4,097	4,598	4,426	4,116	3,934	3,922	3,886	3,979	4,058	4,069	3,838	3,730	3,797	3,484	-39
1.A.3. Transport			10,740	11,248	11,444	11,491	11,913	12,041	12,299	12,494	12,496	12,520	12,382	12,432	12,591	13,057	13,282	13,494	13,818	14,370	14,197	13,428	13,304	12,997	12,425	12,222	12,330	12,513	12,782	12,968	13,216	13,013	11,936	12,139	12,028	12
1.A.4. Other sectors			9,011	9,279	8,479	9,252	8,667	8,827	9,473	8,672	8,455	8,294	7,778	7,950	7,630	7,692	7,423	7,277	7,035	6,551	6,376	6,160	6,375	5,613	5,286	5,232	4,372	4,563	4,607	4,382	4,279	3,997	3,690	3,793	3,317	-63
1.A.5. Other			171	343	200	300	319	323	250	249	287	270	201	192	188	195	348	379	232	280	211	263	209	292	211	236	227	193	203	301	213	195	241	221	187	10
1.B. Fugitive emissions from fuels			670	1,057	1,099	1,009	1,016	887	949	1,219	1,046	1,716	1,291	1,327	1,224	1,180	1,281	1,050	1,012	981	785	587	680	521	460	473	469	455	474	445	405	346	235	221	193	-71
1.B.1. Solid fuels			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
1.B.2. Oil and natural gas and other emissions from energy production			670	1,057	1,099	1,009	1,016	887	949	1,219	1,046	1,716	1,291	1,327	1,224	1,180	1,281	1,050	1,012	981	785	587	680	521	460	473	469	455	474	445	405	346	235	221	193	-71
1.C. CO2 Transport and storage			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
2. Industrial processes and product use			**2,025**	**2,167**	**2,259**	**2,349**	**2,485**	**2,714**	**2,840**	**2,871**	**3,052**	**3,300**	**3,452**	**3,319**	**3,264**	**3,259**	**3,123**	**2,660**	**2,709**	**2,758**	**2,446**	**2,023**	**1,818**	**1,963**	**2,002**	**1,958**	**1,935**	**1,768**	**1,961**	**1,964**	**1,971**	**1,769**	**1,839**	**1,778**	**1,618**	**-20**
2.A. Mineral industry			973	1,164	1,318	1,337	1,398	1,459	1,561	1,571	1,637	1,613	1,632	1,629	1,670	1,543	1,661	1,567	1,621	1,621	1,336	888	807	997	998	994	1,024	1,049	1,231	1,335	1,296	1,250	1,353	1,354	1,217	25
2.B. Chemical industry			892	817	722	680	690	773	714	726	690	813	859	758	663	766	455	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	-100
2.C. Metal industry			61	61	61	71	78	74	45	49	59	60	62	47	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-100
2.D. Non-energy products from fuels and solvent use			72	74	76	75	80	76	74	73	85	90	89	87	111	109	113	139	123	133	114	109	138	129	121	125	123	112	107	116	101	104	101	110	104	45
2.E. Electronic industry			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	9	NO	NO	NO	NO	5	8	6	10	11	10	5	3	4	NO	NO	1	NO	1	NO	NO	NO	–
2.F. Product uses as substitutes for ODS			NO	NO	4	101	145	238	373	377	511	653	751	743	773	790	840	889	909	937	939	961	805	728	726	664	601	452	503	407	475	320	317	275	261	–
2.G. Other product manufacture and use			27	51	77	84	94	93	74	74	70	71	59	47	47	52	54	48	50	57	50	56	56	99	151	170	182	154	119	103	97	93	67	37	34	28
2.H. Other			NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	–
3. Agriculture			**13,831**	**13,721**	**13,592**	**13,587**	**13,420**	**13,478**	**13,086**	**13,120**	**13,120**	**12,713**	**12,682**	**12,733**	**12,794**	**12,598**	**12,570**	**12,369**	**12,063**	**12,259**	**12,246**	**12,071**	**12,024**	**11,995**	**11,987**	**11,967**	**12,086**	**11,965**	**12,146**	**12,180**	**12,044**	**11,935**	**12,089**	**11,785**	**11,523**	**-17**
3.A. Enteric fermentation			4,455	4,494	4,443	4,511	4,413	4,408	4,406	4,254	4,258	4,094	4,034	4,114	4,051	4,004	3,886	3,873	3,873	3,962	4,001	4,005	4,048	4,004	4,100	4,129	4,132	4,106	4,164	4,183	4,202	4,151	4,136	4,185	4,092	-8
3.B. Manure management			3,330	3,462	3,671	3,827	3,773	3,797	3,842	3,953	4,130	4,064	4,163	4,334	4,467	4,511	4,622	4,389	4,169	4,144	3,991	3,924	3,993	3,968	3,890	3,826	3,857	3,829	3,817	3,794	3,862	3,694	3,760	3,686	3,492	5
3.C. Rice cultivation			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
3.D. Agricultural soils			5,431	5,256	5,077	4,901	4,824	4,736	4,420	4,429	4,466	4,280	4,214	4,077	4,038	3,852	3,899	3,882	3,822	3,957	4,021	3,953	3,825	3,856	3,803	3,763	3,855	3,852	3,947	3,981	3,734	3,903	3,935	3,645	3,668	-32
3.E. Prescribed burning of savannahs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
3.F. Field burning of agricultural residues			2	2	2	2	2	2	2	2	3	3	3	3	2	3	3	3	3	3	2	3	2	2	2	3	3	2	2	3	3	3	3	3	4	63
3.G. Liming			565	463	357	307	367	496	393	470	252	265	261	201	233	226	158	220	194	192	229	181	153	162	188	244	238	166	212	214	240	181	250	262	246	-57
3.H. Urea application			15	12	13	13	18	15	9	4	4	3	2	2	1	1	1	0	1	1	0	2	1	1	1	1	1	1	2	2	1	1	1	1	16	11
3.I. Other carbon-containing fertilizers			33	32	29	26	23	22	14	8	6	5	5	4	2	1	1	1	1	1	2	3	2	2	2	2	2	9	3	3	2	3	4	3	6	-82
3.J. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4. Land use, land-use change and forestry (4)			**6,694**	**6,027**	**6,936**	**5,614**	**5,137**	**5,317**	**4,603**	**5,077**	**4,993**	**5,305**	**5,087**	**4,576**	**5,645**	**5,402**	**5,203**	**4,971**	**5,425**	**5,595**	**4,099**	**3,382**	**2,361**	**1,604**	**989**	**673**	**889**	**-95**	**868**	**715**	**2,503**	**1,531**	**1,292**	**198**	**-381**	**-106**
4.A. Forest land			-1,201	-1,203	-1,204	-1,205	-1,206	-1,209	-1,212	-1,215	-1,218	-1,221	-1,253	-1,183	-1,112	-1,041	-967	-878	-877	-1,106	-1,877	-1,943	-2,185	-3,171	-3,575	-3,386	-3,941	-3,979	-3,054	-2,574	-2,090	-2,408	-2,104	-2,867	-3,352	179
4.B. Cropland			5,009	4,253	5,363	4,295	3,736	3,928	3,262	3,651	3,498	3,732	3,808	3,134	4,107	3,868	3,621	3,348	3,857	4,353	3,765	3,081	2,336	2,588	2,296	1,860	2,412	1,468	1,596	1,114	2,220	1,678	1,187	626	616	-88
4.C. Grassland			2,335	2,311	2,288	2,264	2,241	2,217	2,194	2,170	2,146	2,123	2,099	2,076	2,052	2,029	2,005	2,001	1,978	1,954	1,931	1,908	1,885	1,923	1,970	1,952	2,127	2,111	2,054	2,030	2,015	2,016	1,995	2,068	1,966	-16
4.D. Wetlands			102	94	94	82	79	76	90	112	93	77	76	85	96	92	99	98	103	86	69	86	81	89	78	73	84	79	79	79	108	107	125	135	142	39
4.E. Settlements			451	448	446	443	440	422	404	385	367	349	331	313	294	276	258	288	284	280	277	273	269	279	295	268	353	399	367	229	295	222	207	292	345	-24
4.F. Other land			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4.G. Harvested wood products			-2	123	-51	-266	-153	-116	-135	-26	106	245	26	153	208	179	188	113	80	27	-66	-22	-25	-103	-74	-94	-147	-172	-174	-162	-46	-85	-118	-56	-98	4,037
4.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
5. Waste			**1,960**	**1,936**	**1,913**	**1,810**	**1,734**	**1,625**	**1,547**	**1,456**	**1,358**	**1,358**	**1,364**	**1,350**	**1,304**	**1,304**	**1,131**	**1,138**	**1,182**	**1,159**	**1,168**	**1,079**	**1,016**	**1,027**	**999**	**995**	**1,015**	**1,010**	**1,039**	**1,057**	**1,081**	**1,094**	**1,144**	**1,191**	**1,222**	**-38**
5.A. Solid waste disposal			1,525	1,518	1,487	1,457	1,351	1,240	1,187	1,078	986	996	977	969	881	904	763	736	790	743	716	678	611	623	611	581	575	546	515	494	483	465	458	433	421	-72
5.B. Biological treatment of solid waste			43	51	54	63	67	69	82	94	102	115	127	127	145	158	143	150	164	175	168	184	181	173	173	182	202	230	291	327	357	397	446	524	569	1,208
5.C. Incineration and open burning of waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
5.D. Wastewater treatment and discharge			368	342	345	267	292	289	250	257	247	222	236	230	256	217	203	229	203	218	258	192	201	209	194	209	215	214	211	215	217	212	219	214	211	-43
5.E. Other			24	24	27	23	23	27	28	25	23	24	24	23	23	26	22	23	24	22	25	25	22	21	20	22	22	21	21	20	25	21	21	20	21	-12
6. Other (as specified in summary 1)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
Memo items: (5)																																				
1.D.1. International bunkers			4,814	4,344	4,528	5,926	6,623	6,899	6,746	6,385	6,550	6,392	6,419	5,729	4,785	5,027	4,777	4,952	5,754	5,975	5,495	3,838	4,520	4,623	4,052	4,395	4,966	4,963	4,835	4,447	4,804	5,370	2,626	2,650	3,753	-22
1.D.1.a. Aviation			1,779	1,642	1,701	1,668	1,828	1,873	1,968	2,011	2,165	2,296	2,356	2,387	2,065	2,145	2,456	2,577	2,586	2,653	2,652	2,318	2,419	2,490	2,515	2,491	2,701	2,646	2,845	2,929	3,065	3,132	988	1,272	2,188	23
1.D.1.b. Navigation			3,035	2,702	2,827	4,258	4,796	5,025	4,778	4,374	4,385	4,096	4,063	3,342	2,721	2,881	2,320	2,375	3,168	3,322	2,843	1,520	2,101	2,134	1,536	1,904	2,265	2,317	1,990	1,518	1,739	2,238	1,639	1,378	1,565	-48
1.D.2. Multilateral operations			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
1.D.3. CO2 emissions from biomass			4,097	4,442	4,659	4,841	4,779	4,999	5,330	5,511	5,473	5,744	6,011	6,662	7,107	8,096	8,766	9,441	9,739	10,655	10,845	11,148	13,285	12,964	13,310	13,389	13,409	14,143	15,229	16,766	16,576	16,708	17,037	20,082	17,801	334
1.D.4. CO2 captured			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
5.F.1. Long-term storage of C in waste disposal sites			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
Indirect N2O			504	559	505	545	564	548	585	517	493	466	454	430	406	426	394	389	416	409	372	299	311	301	265	271	272	266	257	238	238	249	207	197	200	-60
Indirect CO2 (6)			**1,250**	**1,318**	**1,298**	**1,267**	**1,240**	**1,211**	**1,221**	**1,134**	**1,099**	**1,038**	**982**	**945**	**896**	**867**	**831**	**803**	**754**	**709**	**684**	**609**	**589**	**525**	**484**	**467**	**423**	**411**	**391**	**381**	**367**	**347**	**322**	**323**	**286**	**-77**
Total CO2 equivalent emissions without LULUCF			***70,388***	***81,069***	***75,197***	***77,549***	***81,510***	***78,647***	***91,731***	***82,217***	***78,273***	***75,607***	***71,308***	***72,890***	***72,437***	***77,429***	***71,493***	***67,172***	***74,879***	***70,224***	***66,663***	***63,933***	***64,127***	***58,951***	***54,416***	***56,144***	***51,974***	***49,256***	***51,275***	***48,960***	***48,801***	***44,907***	***42,252***	***43,246***	***41,769***	***-41***
Total CO2 equivalent emissions with LULUCF			***77,082***	***87,096***	***82,133***	***83,163***	***86,646***	***83,965***	***96,335***	***87,294***	***83,267***	***80,912***	***76,396***	***77,466***	***78,081***	***82,831***	***76,696***	***72,143***	***80,304***	***75,819***	***70,762***	***67,315***	***66,488***	***60,555***	***55,406***	***56,817***	***52,863***	***49,161***	***52,142***	***49,676***	***51,304***	***46,438***	***43,545***	***43,444***	***41,388***	***-46***
Total CO2 equivalent emissions, including indirect CO2, without LULUCF			***71,638***	***82,387***	***76,495***	***78,816***	***82,749***	***79,858***	***92,952***	***83,351***	***79,373***	***76,645***	***72,290***	***73,834***	***73,333***	***78,296***	***72,324***	***67,975***	***75,633***	***70,933***	***67,347***	***64,542***	***64,716***	***59,475***	***54,900***	***56,611***	***52,397***	***49,667***	***51,666***	***49,341***	***49,168***	***45,254***	***42,574***	***43,569***	***42,055***	***-41***
Total CO2 equivalent emissions, including indirect CO2, with LULUCF			**78,332**	**88,414**	**83,431**	**84,429**	**87,886**	**85,175**	**97,555**	**88,428**	**84,366**	**81,950**	**77,378**	**78,411**	**78,977**	**83,698**	**77,527**	**72,946**	**81,058**	**76,528**	**71,446**	**67,925**	**67,076**	**61,080**	**55,890**	**57,284**	**53,287**	**49,572**	**52,533**	**50,057**	**51,670**	**46,785**	**43,866**	**43,768**	**41,674**	**-47**

Table C1(2) (CRT Table 10s2): Denmark's emissions and removals of carbon dioxide (CO2) in the period 1990-2022

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
																		(kt)																				%
1. Energy			**51,664**	**62,192**	**56,358**	**58,652**	**62,610**	**59,404**	**72,658**	**63,135**	**59,079**	**56,503**	**52,147**	**53,810**	**53,425**	**58,658**	**53,065**	**49,490**	**57,463**	**52,668**	**49,475**	**47,574**	**48,000**	**42,857**	**38,463**	**40,303**	**36,101**	**33,687**	**35,278**	**32,912**	**32,880**	**29,329**	**26,500**	**27,771**	**26,766**	**-48**
1.A. Fuel combustion			51,323	61,542	55,680	58,070	62,034	58,949	72,159	62,437	58,556	55,395	51,423	53,038	52,750	57,987	52,312	48,941	56,919	52,124	49,087	47,312	47,646	42,604	38,246	40,059	35,851	33,440	35,004	32,670	32,647	29,134	26,374	27,659	26,671	-48
1.A.1. Energy industries			26,156	35,026	30,099	31,675	35,675	32,183	44,478	35,351	31,699	28,610	25,593	26,881	27,103	31,846	25,967	22,787	30,686	26,053	23,935	23,884	23,696	19,772	16,669	18,883	15,423	12,731	13,890	11,411	11,313	8,513	7,181	8,116	8,020	-69
1.A.2. Manufacturing industries and construction			5,668	6,100	5,919	5,834	5,944	6,072	6,178	6,192	6,130	6,200	5,960	6,071	5,720	5,694	5,786	5,498	5,630	5,373	4,848	4,034	4,528	4,357	4,058	3,879	3,870	3,828	3,914	3,988	3,990	3,761	3,652	3,720	3,421	-40
1.A.3. Transport			10,564	11,065	11,257	11,304	11,723	11,855	12,115	12,312	12,320	12,349	12,218	12,274	12,438	12,906	13,136	13,355	13,684	14,236	14,066	13,303	13,179	12,870	12,299	12,096	12,201	12,382	12,648	12,833	13,080	12,878	11,810	12,011	11,902	13
1.A.4. Other sectors			8,768	9,014	8,209	8,962	8,379	8,522	9,143	8,337	8,125	7,972	7,455	7,625	7,305	7,350	7,080	6,928	6,691	6,186	6,031	5,831	6,037	5,317	5,011	4,967	4,131	4,308	4,351	4,141	4,054	3,788	3,493	3,594	3,144	-64
1.A.5. Other			167	338	196	296	314	318	246	245	282	265	197	188	184	192	343	374	229	276	208	260	206	289	209	234	225	191	201	297	210	193	238	219	185	11
1.B. Fugitive emissions from fuels			341	650	677	582	575	454	498	698	524	1,107	724	771	675	670	753	548	544	544	388	262	353	252	218	244	251	248	273	242	233	195	126	111	95	-72
1.B.1. Solid fuels			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
1.B.2. Oil and natural gas and other emissions from energy production			341	650	677	582	575	454	498	698	524	1,107	724	771	675	670	753	548	544	544	388	262	353	252	218	244	251	248	273	242	233	195	126	111	95	-72
1.C. CO2 Transport and storage			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
2. Industrial processes and product use			**1,076**	**1,269**	**1,426**	**1,449**	**1,512**	**1,574**	**1,671**	**1,680**	**1,765**	**1,747**	**1,763**	**1,763**	**1,782**	**1,652**	**1,774**	**1,722**	**1,745**	**1,755**	**1,451**	**997**	**946**	**1,126**	**1,120**	**1,120**	**1,148**	**1,161**	**1,339**	**1,453**	**1,399**	**1,356**	**1,455**	**1,465**	**1,322**	**23**
2.A. Mineral industry			973	1,164	1,318	1,337	1,398	1,459	1,561	1,571	1,637	1,613	1,632	1,629	1,670	1,543	1,661	1,567	1,621	1,621	1,336	888	807	997	998	994	1,024	1,049	1,231	1,335	1,296	1,250	1,353	1,354	1,217	25
2.B. Chemical industry			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	134
2.C. Metal industry			30	30	30	36	34	39	35	35	43	43	41	47	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-100
2.D. Non-energy products from fuels and solvent use			71	74	76	75	79	75	74	72	85	90	89	86	111	108	112	138	123	132	113	108	137	128	121	125	123	111	106	116	101	104	100	110	103	45
2.E. Electronic industry																																				
2.F. Product uses as substitutes for ODS																																				
2.G. Other product manufacture and use			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	452
2.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
3. Agriculture			**613**	**507**	**399**	**346**	**409**	**534**	**416**	**482**	**263**	**273**	**268**	**206**	**236**	**228**	**160**	**222**	**196**	**194**	**231**	**186**	**156**	**165**	**192**	**246**	**240**	**176**	**216**	**219**	**244**	**185**	**254**	**267**	**268**	**-56**
3.A. Enteric fermentation																																				
3.B. Manure management																																				
3.C. Rice cultivation																																				
3.D. Agricultural soils																																				
3.E. Prescribed burning of savannahs																																				
3.F. Field burning of agricultural residues																																				
3.G. Liming			565	463	357	307	367	496	393	470	252	265	261	201	233	226	158	220	194	192	229	181	153	162	188	244	238	166	212	214	240	181	250	262	246	-57
3.H. Urea application			13	12	13	13	18	15	9	4	4	3	2	2	1	1	1	0	1	1	0	2	1	1	1	1	1	1	2	2	1	1	1	1	16	11
3.I. Other carbon-containing fertilizers			33	32	29	26	23	22	14	8	6	5	5	4	2	1	1	1	1	1	2	3	2	2	2	2	2	9	3	3	2	3	4	3	6	-82
3.J. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4. Land use, land-use change and forestry (4)			**6,332**	**5,667**	**6,576**	**5,255**	**4,779**	**4,962**	**4,251**	**4,728**	**4,646**	**4,960**	**4,745**	**4,237**	**5,307**	**5,067**	**4,870**	**4,637**	**5,089**	**5,257**	**3,759**	**3,040**	**2,018**	**1,266**	**654**	**343**	**563**	**-419**	**539**	**387**	**2,176**	**1,199**	**953**	**-145**	**-731**	**-112**
4.A. Forest land			-1,236	-1,239	-1,242	-1,244	-1,247	-1,250	-1,254	-1,258	-1,262	-1,266	-1,299	-1,230	-1,161	-1,090	-1,019	-930	-931	-1,162	-1,936	-2,004	-2,246	-3,232	-3,637	-3,448	-4,003	-4,042	-3,118	-2,639	-2,155	-2,474	-2,170	-2,933	-3,418	176
4.B. Cropland			4,861	4,107	5,218	4,151	3,594	3,787	3,122	3,512	3,361	3,596	3,673	3,000	3,975	3,737	3,491	3,219	3,729	4,226	3,639	2,957	2,213	2,473	2,190	1,761	2,321	1,384	1,519	1,044	2,156	1,621	1,135	579	574	-88
4.C. Grassland			2,196	2,174	2,152	2,130	2,107	2,085	2,063	2,040	2,018	1,996	1,974	1,951	1,929	1,907	1,885	1,882	1,860	1,838	1,816	1,794	1,772	1,808	1,853	1,833	2,008	1,990	1,932	1,908	1,894	1,895	1,874	1,949	1,849	-16
4.D. Wetlands			100	91	91	78	75	70	85	106	86	69	68	76	86	82	88	85	87	68	48	61	53	59	45	39	47	39	29	23	48	33	39	38	33	-66
4.E. Settlements			414	411	409	406	403	387	370	354	337	320	304	287	270	254	237	267	264	261	258	254	251	261	278	251	336	382	350	213	279	207	193	277	330	-20
4.F. Other land																																				
4.G. Harvested wood products			-2	123	-51	-266	-153	-116	-135	-26	106	245	26	153	208	179	188	113	80	27	-66	-22	-25	-103	-74	-94	-147	-172	-174	-162	-46	-85	-118	-56	-98	4,037
4.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
5. Waste			**16**	**17**	**19**	**16**	**16**	**19**	**19**	**18**	**16**	**17**	**17**	**16**	**16**	**18**	**15**	**16**	**16**	**14**	**17**	**17**	**16**	**15**	**14**	**16**	**16**	**15**	**15**	**14**	**18**	**15**	**15**	**14**	**15**	**-10**
5.A. Solid waste disposal																																				
5.B. Biological treatment of solid waste																																				
5.C. Incineration and open burning of waste			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
5.D. Wastewater treatment and discharge																																				
5.E. Other			16	17	19	16	16	19	19	18	16	17	17	16	16	18	15	16	16	14	17	17	16	15	14	16	16	15	15	14	18	15	15	14	15	-10
6. Other (as specified in summary 1)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
Memo items: (5)																																				
1.D.1. International bunkers			4,777	4,310	4,493	5,881	6,573	6,847	6,694	6,336	6,499	6,342	6,368	5,684	4,747	4,987	4,738	4,912	5,709	5,927	5,451	3,806	4,483	4,586	4,018	4,359	4,926	4,923	4,796	4,410	4,765	5,327	2,606	2,629	3,722	-22
1.D.1.a. Aviation			1,763	1,627	1,686	1,653	1,811	1,856	1,950	1,993	2,145	2,275	2,334	2,365	2,046	2,126	2,434	2,554	2,563	2,629	2,629	2,297	2,397	2,467	2,493	2,469	2,677	2,622	2,819	2,903	3,038	3,105	979	1,261	2,169	23
1.D.1.b. Navigation			3,014	2,683	2,807	4,228	4,762	4,990	4,744	4,343	4,354	4,067	4,035	3,318	2,702	2,861	2,304	2,358	3,146	3,299	2,823	1,509	2,086	2,119	1,526	1,891	2,249	2,301	1,976	1,507	1,727	2,222	1,627	1,368	1,554	-48
1.D.2. Multilateral operations			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
1.D.3. CO2 emissions from biomass			4,097	4,442	4,659	4,841	4,779	4,999	5,330	5,511	5,473	5,744	6,011	6,662	7,107	8,096	8,766	9,441	9,739	10,655	10,845	11,148	13,285	12,964	13,310	13,389	13,409	14,143	15,229	16,766	16,576	16,708	17,037	20,082	17,801	334
1.D.4. CO2 captured			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
5.F.1. Long-term storage of C in waste disposal sites			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
Indirect N2O																																				
Indirect CO2 (6)			1,250	1,318	1,298	1,267	1,240	1,211	1,221	1,134	1,099	1,038	982	945	896	867	831	803	754	709	684	609	589	525	484	467	423	411	391	381	367	347	322	323	286	-77
Total CO2 emissions without LULUCF			***53,370***	***63,985***	***58,201***	***60,463***	***64,547***	***61,530***	***74,763***	***65,314***	***61,123***	***58,540***	***54,195***	***55,795***	***55,459***	***60,556***	***55,014***	***51,450***	***59,421***	***54,631***	***51,175***	***48,775***	***49,117***	***44,162***	***39,789***	***41,685***	***37,505***	***35,039***	***36,848***	***34,597***	***34,541***	***30,884***	***28,224***	***29,516***	***28,371***	***-47***
Total CO2 emissions with LULUCF			***59,702***	***69,653***	***64,777***	***65,718***	***69,326***	***66,493***	***79,014***	***70,042***	***65,769***	***63,500***	***58,940***	***60,032***	***60,766***	***65,623***	***59,883***	***56,087***	***64,510***	***59,889***	***54,934***	***51,815***	***51,135***	***45,428***	***40,443***	***42,028***	***38,068***	***34,620***	***37,387***	***34,984***	***36,717***	***32,082***	***29,178***	***29,371***	***27,640***	***-54***
Total CO2 equivalent emissions, including indirect CO2, without LULUCF			***54,619***	***65,303***	***59,499***	***61,730***	***65,786***	***62,741***	***75,984***	***66,448***	***62,222***	***59,577***	***55,177***	***56,740***	***56,355***	***61,423***	***55,845***	***52,253***	***60,175***	***55,340***	***51,859***	***49,384***	***49,706***	***44,687***	***40,273***	***42,152***	***37,928***	***35,450***	***37,239***	***34,978***	***34,908***	***31,230***	***28,546***	***29,839***	***28,657***	***-48***
Total CO2 equivalent emissions, including indirect CO2, with LULUCF			**60,951**	**70,971**	**66,075**	**66,985**	**70,566**	**67,703**	**80,235**	**71,176**	**66,869**	**64,538**	**59,922**	**60,977**	**61,662**	**66,490**	**60,714**	**56,890**	**65,264**	**60,597**	**55,618**	**52,424**	**51,724**	**45,953**	**40,927**	**42,495**	**38,491**	**35,031**	**37,778**	**35,365**	**37,084**	**32,429**	**29,500**	**29,694**	**27,926**	**-54**

Table C1(3) (CRT Table 10s3): Denmark's emissions of methane (CH4) in the period 1990-2022

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			(kt)																																			%
1. Energy			**22.82**	**26.77**	**27.90**	**30.27**	**33.82**	**39.31**	**44.17**	**46.08**	**47.40**	**50.07**	**47.88**	**48.23**	**47.31**	**45.47**	**45.70**	**42.85**	**40.11**	**37.34**	**35.61**	**30.98**	**33.38**	**28.15**	**23.46**	**21.79**	**19.08**	**18.44**	**18.66**	**18.62**	**17.69**	**16.77**	**13.63**	**14.48**	**12.60**	**-44.80**
1.A. Fuel combustion			11.08	12.23	12.84	15.03	18.09	23.88	28.08	27.52	28.76	28.35	27.65	28.41	27.71	27.27	26.84	24.95	23.42	21.73	21.42	19.38	21.74	18.55	14.83	13.63	11.30	11.04	11.52	11.36	11.54	11.40	9.75	10.57	9.08	-18.02
1.A.1. Energy industries			0.62	0.96	1.36	2.98	6.07	11.40	14.58	13.90	15.29	15.39	14.68	15.56	15.13	14.39	14.07	12.43	11.51	9.59	10.10	8.82	10.98	9.20	6.37	5.66	4.12	3.50	4.06	4.22	4.72	4.93	3.66	4.66	3.90	530.24
1.A.2. Manufacturing industries and construction			0.32	0.34	0.32	0.33	0.33	0.39	0.76	0.76	0.86	0.85	1.06	1.12	1.02	0.99	1.00	0.85	0.70	0.49	0.54	0.49	0.58	0.52	0.36	0.38	0.38	0.50	0.54	0.69	0.88	0.98	0.97	0.79	0.68	111.21
1.A.3. Transport			3.16	3.28	3.29	3.24	3.17	3.01	2.84	2.71	2.56	2.37	2.19	2.03	1.89	1.78	1.64	1.48	1.35	1.22	1.03	0.88	0.78	0.69	0.60	0.54	0.50	0.48	0.44	0.42	0.39	0.37	0.34	0.34	0.31	-90.28
1.A.4. Other sectors			6.90	7.56	7.78	8.39	8.43	8.97	9.80	10.05	9.94	9.65	9.64	9.61	9.59	10.04	10.06	10.11	9.81	10.39	9.71	9.15	9.37	8.12	7.47	7.03	6.30	6.55	6.48	6.02	5.54	5.11	4.78	4.78	4.19	-39.29
1.A.5. Other			0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-89.66
1.B. Fugitive emissions from fuels			11.74	14.54	15.06	15.24	15.73	15.44	16.09	18.57	18.65	21.72	20.23	19.83	19.59	18.20	18.86	17.90	16.69	15.61	14.19	11.61	11.64	9.59	8.63	8.16	7.78	7.40	7.14	7.26	6.15	5.37	3.87	3.90	3.52	-70.07
1.B.1. Solid fuels			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
1.B.2. Oil and natural gas and other emissions from energy production			11.74	14.54	15.06	15.24	15.73	15.44	16.09	18.57	18.65	21.72	20.23	19.83	19.59	18.20	18.86	17.90	16.69	15.61	14.19	11.61	11.64	9.59	8.63	8.16	7.78	7.40	7.14	7.26	6.15	5.37	3.87	3.90	3.52	-70.07
1.C. CO2 Transport and storage																																				
2. Industrial processes and product use			**0.10**	**0.09**	**0.11**	**0.09**	**0.09**	**0.10**	**0.11**	**0.13**	**0.11**	**0.12**	**0.13**	**0.12**	**0.15**	**0.17**	**0.16**	**0.15**	**0.17**	**0.13**	**0.12**	**0.12**	**0.10**	**0.09**	**0.13**	**0.13**	**0.11**	**0.14**	**0.09**	**0.09**	**0.10**	**0.10**	**0.08**	**0.12**	**0.10**	**2.15**
2.A. Mineral industry			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
2.B. Chemical industry			NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	–
2.C. Metal industry			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
2.D. Non-energy products from fuels and solvent use			0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	79.42
2.E. Electronic industry																																				
2.F. Product uses as substitutes for ODS																																				
2.G. Other product manufacture and use			0.09	0.08	0.10	0.08	0.07	0.09	0.10	0.12	0.10	0.11	0.12	0.10	0.14	0.16	0.14	0.12	0.15	0.11	0.10	0.10	0.08	0.07	0.11	0.11	0.09	0.12	0.07	0.07	0.07	0.08	0.06	0.10	0.08	-8.78
2.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
3. Agriculture			**247.72**	**253.48**	**258.07**	**266.07**	**261.78**	**263.39**	**264.82**	**262.85**	**268.24**	**260.60**	**262.13**	**270.10**	**272.01**	**272.35**	**271.04**	**264.21**	**258.47**	**260.97**	**258.56**	**257.88**	**262.11**	**260.14**	**261.22**	**260.15**	**261.43**	**259.75**	**261.61**	**261.56**	**264.21**	**257.88**	**259.93**	**261.14**	**252.11**	**1.77**
3.A. Enteric fermentation			159.09	160.50	158.67	161.11	157.60	157.44	157.36	151.92	152.08	146.21	144.06	146.92	144.69	143.01	138.78	138.32	138.33	141.49	142.89	143.03	144.58	143.01	146.42	147.46	147.56	146.63	148.71	149.40	150.07	148.23	147.73	149.45	146.15	-8.13
3.B. Manure management			88.56	92.92	99.35	104.90	104.12	105.88	107.40	110.85	116.08	114.31	117.99	123.10	127.24	129.26	132.17	125.80	120.06	119.39	115.60	114.76	117.47	117.06	114.72	112.61	113.78	113.04	112.82	112.08	114.06	109.55	112.11	111.59	105.84	19.51
3.C. Rice cultivation			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
3.D. Agricultural soils			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
3.E. Prescribed burning of savannahs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
3.F. Field burning of agricultural residues			0.07	0.07	0.06	0.07	0.06	0.07	0.07	0.07	0.09	0.08	0.08	0.09	0.07	0.08	0.09	0.09	0.09	0.08	0.08	0.09	0.07	0.07	0.08	0.08	0.08	0.08	0.07	0.08	0.08	0.10	0.10	0.10	0.11	63.49
3.G. Liming																																				
3.H. Urea application																																				
3.I. Other carbon-containing fertilizers																																				
3.J. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4. Land use, land-use change and forestry (4)			**10.52**	**10.49**	**10.48**	**10.48**	**10.47**	**10.44**	**10.41**	**10.38**	**10.35**	**10.32**	**10.30**	**10.28**	**10.26**	**10.24**	**10.25**	**10.29**	**10.41**	**10.52**	**10.63**	**10.74**	**10.76**	**10.64**	**10.54**	**10.37**	**10.24**	**10.17**	**10.31**	**10.36**	**10.30**	**10.55**	**10.78**	**10.92**	**11.12**	**5.69**
4.A. Forest land			0.23	0.27	0.33	0.40	0.46	0.50	0.54	0.58	0.62	0.66	0.71	0.76	0.81	0.86	0.94	0.98	1.08	1.18	1.28	1.38	1.39	1.39	1.42	1.41	1.45	1.47	1.50	1.53	1.56	1.60	1.60	1.61	1.62	604.40
4.B. Cropland			5.27	5.22	5.18	5.14	5.09	5.05	5.00	4.96	4.92	4.87	4.83	4.78	4.74	4.69	4.65	4.61	4.56	4.52	4.47	4.43	4.39	4.08	3.79	3.51	3.24	2.98	2.73	2.49	2.26	2.04	1.83	1.63	1.45	-72.53
4.C. Grassland			4.95	4.90	4.86	4.81	4.76	4.72	4.67	4.62	4.58	4.53	4.48	4.44	4.39	4.35	4.30	4.25	4.21	4.16	4.11	4.07	4.02	4.10	4.17	4.22	4.27	4.30	4.32	4.33	4.32	4.31	4.28	4.24	4.18	-15.46
4.D. Wetlands			0.07	0.09	0.11	0.13	0.15	0.17	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.46	0.56	0.66	0.76	0.86	0.96	1.06	1.16	1.22	1.29	1.42	1.77	2.01	2.15	2.61	3.06	3.44	3.87	5,177.94
4.E. Settlements																																				
4.F. Other land																																				
4.G. Harvested wood products																																				
4.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
5. Waste			**58.20**	**58.20**	**57.16**	**56.25**	**52.63**	**48.94**	**47.43**	**44.01**	**40.86**	**41.60**	**41.34**	**41.09**	**38.37**	**39.62**	**34.28**	**33.62**	**35.95**	**34.51**	**33.34**	**32.37**	**29.91**	**30.09**	**29.81**	**29.05**	**29.67**	**29.30**	**30.50**	**30.97**	**31.62**	**32.35**	**34.01**	**35.91**	**36.98**	**-36.45**
5.A. Solid waste disposal			54.46	54.22	53.12	52.03	48.26	44.27	42.41	38.52	35.22	35.58	34.90	34.61	31.47	32.27	27.24	26.29	28.22	26.55	25.58	24.20	21.81	22.27	21.83	20.75	20.55	19.49	18.39	17.65	17.24	16.59	16.35	15.47	15.04	-72.39
5.B. Biological treatment of solid waste			1.09	1.29	1.37	1.63	1.70	1.81	2.17	2.49	2.70	2.97	3.26	3.32	3.75	4.17	3.97	4.14	4.58	4.82	4.68	5.13	5.10	4.89	4.95	5.21	5.94	6.83	9.01	10.18	11.17	12.54	14.28	17.12	18.71	1,623.92
5.C. Incineration and open burning of waste			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.90
5.D. Wastewater treatment and discharge			2.39	2.43	2.37	2.34	2.41	2.56	2.55	2.73	2.70	2.79	2.92	2.90	2.90	2.90	2.82	2.93	2.88	2.86	2.81	2.77	2.76	2.70	2.81	2.84	2.96	2.76	2.87	2.92	2.96	3.00	3.16	3.11	3.01	25.96
5.E. Other			0.26	0.27	0.29	0.25	0.25	0.30	0.30	0.28	0.25	0.27	0.26	0.25	0.25	0.28	0.24	0.25	0.26	0.27	0.27	0.26	0.24	0.23	0.22	0.24	0.23	0.22	0.23	0.21	0.24	0.22	0.22	0.21	0.22	-15.79
6. Other (as specified in summary 1)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
Total CH4 emissions without LULUCF			***328.84***	***338.54***	***343.24***	***352.69***	***348.31***	***351.75***	***356.53***	***353.08***	***356.63***	***352.40***	***351.48***	***359.54***	***357.84***	***357.62***	***351.18***	***340.83***	***334.71***	***332.94***	***327.62***	***321.35***	***325.50***	***318.47***	***314.61***	***311.11***	***310.29***	***307.62***	***310.85***	***311.24***	***313.61***	***307.10***	***307.65***	***311.65***	***301.79***	***-8.23***
Total CH4 emissions with LULUCF			**339.36**	**349.03**	**353.72**	**363.16**	**358.78**	**362.18**	**366.94**	**363.46**	**366.98**	**362.73**	**361.78**	**369.82**	**368.09**	**367.86**	**361.43**	**351.12**	**345.11**	**343.46**	**338.25**	**332.09**	**336.26**	**329.11**	**325.16**	**321.48**	**320.53**	**317.79**	**321.16**	**321.60**	**323.91**	**317.65**	**318.43**	**322.57**	**312.91**	**-7.80**
Memo items: (5)																																				
1.D.1. International bunkers			0.05	0.05	0.05	0.07	0.08	0.08	0.08	0.07	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.05	0.06	0.07	0.06	0.03	0.05	0.05	0.03	0.04	0.05	0.05	0.04	0.04	0.04	0.05	0.03	0.03	0.03	-34.22
1.D.1.a. Aviation			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	-10.23
1.D.1.b. Navigation			0.04	0.04	0.04	0.06	0.07	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.02	0.03	-38.05
1.D.2. Multilateral operations			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
1.D.3. CO2 emissions from biomass																																				
1.D.4. CO2 captured																																				
5.F.1. Long-term storage of C in waste disposal sites																																				
Indirect N2O																																				
Indirect CO2 (6)																																				

Table C1(4) (CRT Table 10s4): Denmark's emissions of nitrous oxide (N2O) in the period 1990-2022

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			(kt)																																	%
1. Energy			**1.02**	**1.14**	**1.11**	**1.14**	**1.18**	**1.23**	**1.37**	**1.30**	**1.27**	**1.25**	**1.22**	**1.24**	**1.22**	**1.27**	**1.23**	**1.19**	**1.28**	**1.27**	**1.25**	**1.20**	**1.26**	**1.21**	**1.16**	**1.18**	**1.14**	**1.17**	**1.24**	**1.23**	**1.24**	**1.17**	**1.12**	**1.19**	**1.08**	**6.42**
1.A. Fuel combustion			1.02	1.14	1.11	1.14	1.18	1.23	1.37	1.30	1.27	1.25	1.22	1.23	1.22	1.27	1.22	1.19	1.28	1.26	1.25	1.20	1.26	1.21	1.16	1.18	1.14	1.17	1.24	1.23	1.24	1.17	1.12	1.19	1.08	6.46
1.A.1. Energy industries			0.29	0.37	0.34	0.36	0.39	0.38	0.51	0.44	0.42	0.40	0.38	0.40	0.40	0.44	0.39	0.36	0.42	0.36	0.35	0.36	0.37	0.33	0.31	0.33	0.29	0.28	0.30	0.29	0.29	0.26	0.25	0.28	0.26	-10.52
1.A.2. Manufacturing industries and construction			0.21	0.22	0.22	0.20	0.20	0.25	0.25	0.25	0.26	0.25	0.24	0.24	0.22	0.21	0.22	0.21	0.23	0.24	0.23	0.19	0.20	0.20	0.18	0.17	0.15	0.17	0.19	0.19	0.21	0.19	0.19	0.21	0.17	-19.09
1.A.3. Transport			0.33	0.34	0.36	0.36	0.38	0.39	0.39	0.40	0.40	0.39	0.39	0.38	0.38	0.38	0.38	0.37	0.36	0.38	0.39	0.38	0.39	0.41	0.41	0.42	0.43	0.45	0.46	0.47	0.47	0.47	0.44	0.45	0.44	34.44
1.A.4. Other sectors			0.19	0.20	0.20	0.21	0.20	0.20	0.21	0.20	0.19	0.20	0.20	0.21	0.21	0.23	0.23	0.25	0.26	0.28	0.28	0.27	0.29	0.26	0.25	0.26	0.24	0.27	0.28	0.27	0.26	0.25	0.24	0.25	0.21	10.58
1.A.5. Other			0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	39.63
1.B. Fugitive emissions from fuels			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-63.88
1.B.1. Solid fuels			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
1.B.2. Oil and natural gas and other emissions from energy production			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-63.88
1.C. CO2 Transport and storage																																				
2. Industrial processes and product use			**3.42**	**3.14**	**2.78**	**2.63**	**2.66**	**2.98**	**2.76**	**2.80**	**2.67**	**3.14**	**3.30**	**2.92**	**2.56**	**2.96**	**1.79**	**0.06**	**0.07**	**0.07**	**0.06**	**0.07**	**0.06**	**0.07**	**0.05**	**0.06**	**0.06**	**0.07**	**0.06**	**0.06**	**0.07**	**0.06**	**0.07**	**0.07**	**0.07**	**-97.95**
2.A. Mineral industry			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
2.B. Chemical industry			3.36	3.08	2.72	2.56	2.60	2.92	2.69	2.74	2.60	3.07	3.24	2.86	2.50	2.89	1.71	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	NA,NO	–
2.C. Metal industry			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
2.D. Non-energy products from fuels and solvent use			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186.43
2.E. Electronic industry			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
2.F. Product uses as substitutes for ODS																																				
2.G. Other product manufacture and use			0.06	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.07	0.06	0.07	0.05	0.06	0.06	0.07	0.06	0.06	0.07	0.06	0.07	0.07	0.07	17.33
2.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
3. Agriculture			**23.70**	**23.08**	**22.52**	**21.85**	**21.44**	**21.02**	**19.83**	**19.92**	**20.18**	**19.41**	**19.15**	**18.73**	**18.65**	**17.90**	**18.19**	**17.92**	**17.47**	**17.95**	**18.02**	**17.60**	**17.09**	**17.16**	**16.91**	**16.74**	**17.08**	**17.04**	**17.38**	**17.50**	**16.61**	**17.09**	**17.19**	**15.87**	**15.83**	**-33.19**
3.A. Enteric fermentation																																				
3.B. Manure management			3.21	3.25	3.36	3.36	3.24	3.14	3.15	3.20	3.32	3.26	3.24	3.35	3.41	3.36	3.48	3.27	3.05	3.02	2.85	2.68	2.66	2.60	2.56	2.54	2.53	2.50	2.48	2.47	2.52	2.36	2.34	2.12	1.99	-37.86
3.C. Rice cultivation																																				
3.D. Agricultural soils			20.49	19.83	19.16	18.49	18.20	17.87	16.68	16.71	16.85	16.15	15.90	15.38	15.24	14.54	14.71	14.65	14.42	14.93	15.17	14.92	14.43	14.55	14.35	14.20	14.55	14.54	14.90	15.02	14.09	14.73	14.85	13.75	13.84	-32.47
3.E. Prescribed burning of savannahs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
3.F. Field burning of agricultural residues			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.49
3.G. Liming																																				
3.H. Urea application																																				
3.I. Other carbon-containing fertilizers																																				
3.J. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4. Land use, land-use change and forestry (4)			**0.25**	**0.25**	**0.25**	**0.25**	**0.24**	**0.24**	**0.23**	**0.22**	**0.22**	**0.21**	**0.20**	**0.20**	**0.19**	**0.18**	**0.18**	**0.17**	**0.17**	**0.16**	**0.16**	**0.16**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.14**	**0.14**	**0.14**	**0.14**	**0.15**	**-42.75**
4.A. Forest land			0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	-28.30
4.B. Cropland			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	957,240.04
4.C. Grassland			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24,828.20
4.D. Wetlands			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-49.87
4.E. Settlements			0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.06	0.06	-59.84
4.F. Other land			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
4.G. Harvested wood products																																				
4.H. Other			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
5. Waste			**1.18**	**1.09**	**1.11**	**0.83**	**0.92**	**0.89**	**0.75**	**0.78**	**0.75**	**0.66**	**0.72**	**0.69**	**0.81**	**0.67**	**0.59**	**0.68**	**0.60**	**0.67**	**0.82**	**0.59**	**0.61**	**0.64**	**0.57**	**0.63**	**0.63**	**0.66**	**0.64**	**0.66**	**0.67**	**0.65**	**0.67**	**0.65**	**0.65**	**-45.28**
5.A. Solid waste disposal																																				
5.B. Biological treatment of solid waste			0.05	0.05	0.06	0.07	0.07	0.07	0.08	0.09	0.10	0.12	0.13	0.13	0.15	0.15	0.12	0.13	0.14	0.15	0.14	0.15	0.14	0.14	0.13	0.14	0.14	0.15	0.15	0.16	0.17	0.17	0.18	0.17	0.17	242.07
5.C. Incineration and open burning of waste			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.90
5.D. Wastewater treatment and discharge			1.13	1.04	1.05	0.76	0.85	0.82	0.67	0.68	0.65	0.54	0.58	0.56	0.66	0.51	0.47	0.55	0.46	0.52	0.68	0.43	0.47	0.50	0.44	0.49	0.50	0.52	0.49	0.50	0.51	0.48	0.49	0.48	0.48	-57.82
5.E. Other			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
6. Other (as specified in summary 1)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
Total direct N2O emissions without LULUCF			**29.33**	**28.46**	**27.52**	**26.45**	**26.21**	**26.12**	**24.71**	**24.80**	**24.86**	**24.46**	**24.39**	**23.58**	**23.25**	**22.80**	**21.79**	**19.86**	**19.41**	**19.97**	**20.15**	**19.46**	**19.03**	**19.08**	**18.69**	**18.61**	**18.91**	**18.94**	**19.32**	**19.46**	**18.59**	**18.98**	**19.05**	**17.78**	**17.64**	**-39.87**
Total direct N2O emissions with LULUCF			**29.58**	**28.71**	**27.77**	**26.69**	**26.45**	**26.36**	**24.94**	**25.02**	**25.08**	**24.67**	**24.59**	**23.78**	**23.43**	**22.98**	**21.97**	**20.03**	**19.58**	**20.13**	**20.31**	**19.62**	**19.18**	**19.23**	**18.84**	**18.76**	**19.06**	**19.09**	**19.47**	**19.60**	**18.74**	**19.12**	**19.19**	**17.93**	**17.78**	**-39.89**
Memo items: (5)																																				
1.D.1. International bunkers			0.14	0.12	0.13	0.16	0.18	0.19	0.19	0.18	0.18	0.18	0.18	0.16	0.14	0.15	0.14	0.15	0.17	0.17	0.16	0.12	0.13	0.14	0.12	0.13	0.15	0.15	0.14	0.14	0.15	0.16	0.07	0.08	0.11	-17.07
1.D.1.a. Aviation			0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.07	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.03	0.04	0.07	22.61
1.D.1.b. Navigation			0.08	0.07	0.07	0.11	0.12	0.13	0.12	0.11	0.11	0.10	0.10	0.08	0.07	0.07	0.06	0.06	0.08	0.08	0.07	0.04	0.05	0.05	0.04	0.05	0.06	0.06	0.05	0.04	0.04	0.06	0.04	0.03	0.04	-48.35
1.D.2. Multilateral operations			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	–
1.D.3. CO2 emissions from biomass																																				
1.D.4. CO2 captured																																				
5.F.1. Long-term storage of C in waste disposal sites																																				
Indirect N2O			1.90	2.11	1.91	2.06	2.13	2.07	2.21	1.95	1.86	1.76	1.71	1.62	1.53	1.61	1.49	1.47	1.57	1.54	1.40	1.13	1.17	1.14	1.00	1.02	1.03	1.00	0.97	0.90	0.90	0.94	0.78	0.74	0.75	-60.45
Indirect CO2 (6)																																				

Table C1.5 (CRT Table 10s5): Denmark's emissions of industrial greenhouse gases (HFCs, PFCs, SF6 and NF3 in the period 1990-2022

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
	kt / kt CO2 equivalents (kt)																																			%
Emissions of HFCs and PFCs - CO2 equivalents (kt) (3)			**NO**	**NO**	**3.56**	**100.79**	**144.55**	**238.26**	**372.59**	**377.42**	**510.64**	**652.75**	**750.64**	**751.24**	**772.92**	**789.89**	**839.78**	**888.84**	**913.07**	**945.66**	**944.50**	**970.24**	**816.12**	**737.70**	**731.01**	**667.63**	**605.18**	**451.81**	**503.29**	**408.29**	**474.95**	**320.54**	**316.53**	**275.33**	**261.48**	–
Emissions of HFCs - CO2 equivalents (kt) (3)			**NO**	**NO**	**3.56**	**100.79**	**144.49**	**237.62**	**370.48**	**372.19**	**499.07**	**636.88**	**727.89**	**723.10**	**744.69**	**765.10**	**819.09**	**869.92**	**892.13**	**924.80**	**926.29**	**951.21**	**806.48**	**730.44**	**727.82**	**664.31**	**602.74**	**451.80**	**503.28**	**407.31**	**474.94**	**319.55**	**316.52**	**275.32**	**261.47**	–
HFC-23			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	NO	NO	NO	NO	NO	NO	NO	–
HFC-32			NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	–
HFC-41			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-43-10mee			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-125			NO	NO	NO	NO	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.06	0.06	0.06	0.06	0.05	0.04	0.05	0.04	0.04	0.03	0.03	0.03	0.03	–
HFC-134			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-134a			NO	NO	0.00	0.07	0.10	0.16	0.22	0.19	0.24	0.27	0.28	0.29	0.29	0.27	0.28	0.27	0.27	0.27	0.26	0.26	0.23	0.20	0.21	0.18	0.16	0.11	0.13	0.10	0.12	0.09	0.09	0.09	0.08	–
HFC-143			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-143a			NO	NO	NO	NO	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.03	0.04	0.03	0.03	0.02	0.02	0.01	0.01	–
HFC-152			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-152a			NO	NO	0.00	0.03	0.05	0.04	0.03	0.02	0.01	0.04	0.02	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	–
HFC-161			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-227ea			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	–
HFC-236cb			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-236ea			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-236fa			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-245ca			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-245fa			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
HFC-365mfc			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Unspecified mix of HFCs (7) - CO2 equivalents (kt) (3)			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Emissions of PFCs - CO2 equivalents (kt)			**NO**	**NO**	**NO**	**NO**	**0.07**	**0.64**	**2.11**	**5.24**	**11.57**	**15.87**	**22.75**	**28.13**	**28.24**	**24.79**	**20.70**	**18.92**	**20.94**	**20.86**	**18.21**	**19.03**	**9.63**	**7.27**	**3.18**	**3.32**	**2.44**	**0.02**	**0.01**	**0.98**	**0.01**	**0.99**	**0.01**	**0.01**	**0.01**	–
CF4			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	–
C2F6			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
C3F8			NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	NO	NO	NO	NO	NO	NO	NO	–
C4F10			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
c-C4F8			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	NO	NO	NO	NO	NO	NO	NO	–
C5F12			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
C6F14			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
C10F18			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
c-C3F6			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Unspecified mix of PFCs (7) - CO2 equivalents (kt) (3)			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Unspecified mix of HFCs and PFCs - CO2 equivalents (kt) (3)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
Emissions of SF6 - CO2 equivalents (kt) (3)			**39.01**	**62.94**	**88.86**	**100.84**	**120.42**	**108.12**	**63.32**	**68.02**	**66.43**	**64.83**	**58.58**	**27.00**	**25.19**	**28.31**	**30.50**	**28.03**	**28.60**	**33.74**	**31.17**	**33.04**	**37.09**	**78.67**	**133.55**	**150.16**	**163.20**	**133.00**	**100.03**	**83.63**	**76.34**	**73.41**	**47.90**	**15.12**	**13.07**	**-66.48**
SF6			0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-66.48
Emissions of NF3 - CO2 equivalents (kt) (3)			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	–
NF3			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Emissions of HFCs - CO2 equivalents (kt) (3)	***0.00***	***0.00***	***NO***	***NO***	***3.56***	***100.79***	***144.49***	***237.62***	***370.48***	***372.19***	***499.07***	***636.88***	***727.89***	***723.10***	***744.69***	***765.10***	***819.09***	***869.92***	***892.13***	***924.80***	***926.29***	***951.21***	***806.48***	***730.44***	***727.82***	***664.31***	***602.74***	***451.80***	***503.28***	***407.31***	***474.94***	***319.55***	***316.52***	***275.32***	***261.47***	–
Emissions of PFCs - CO2 equivalents (kt)	***0.00***	***0.00***	***NO***	***NO***	***NO***	***NO***	***0.07***	***0.64***	***2.11***	***5.24***	***11.57***	***15.87***	***22.75***	***28.13***	***28.24***	***24.79***	***20.70***	***18.92***	***20.94***	***20.86***	***18.21***	***19.03***	***9.63***	***7.27***	***3.18***	***3.32***	***2.44***	***0.02***	***0.01***	***0.98***	***0.01***	***0.99***	***0.01***	***0.01***	***0.01***	–
Emissions of SF6 - CO2 equivalents (kt) (3)	***0.00***	***0.00***	***39.01***	***62.94***	***88.86***	***100.84***	***120.42***	***108.12***	***63.32***	***68.02***	***66.43***	***64.83***	***58.58***	***27.00***	***25.19***	***28.31***	***30.50***	***28.03***	***28.60***	***33.74***	***31.17***	***33.04***	***37.09***	***78.67***	***133.55***	***150.16***	***163.20***	***133.00***	***100.03***	***83.63***	***76.34***	***73.41***	***47.90***	***15.12***	***13.07***	***-66.48***
Emissions of NF3 - CO2 equivalents (kt) (3)	***0.00***	***0.00***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	***NO***	–
Emissions of F-gases - CO2 equivalents (kt)	**0.00**	**0.00**	**39.01**	**62.94**	**92.42**	**201.63**	**264.98**	**346.38**	**435.91**	**445.44**	**577.07**	**717.58**	**809.22**	**778.24**	**798.11**	**818.19**	**870.28**	**916.86**	**941.67**	**979.39**	**975.67**	**1,003.28**	**853.21**	**816.37**	**864.56**	**817.79**	**768.38**	**584.81**	**603.31**	**491.92**	**551.28**	**393.95**	**364.43**	**290.45**	**274.55**	**-66.48**

Table C1(6) (CRT Table 10s6): Denmark's total emissions and removals of greenhouse gases in the period 1990-2022

GREENHOUSE GAS EMISSIONS AND REMOVALS	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
CO2 emissions without net CO2 from LULUCF			53370	63985	58201	60463	64547	61530	74763	65314	61123	58540	54195	55795	55459	60556	55014	51450	59421	54631	51175	48775	49117	44162	39789	41685	37505	35039	36848	34597	34541	30884	28224	29516	28371	-47
CO2 emissions with net CO2 from LULUCF			59702	69653	64777	65718	69326	66493	79014	70042	65769	63500	58940	60032	60766	65623	59883	56087	64510	59889	54934	51815	51135	45428	40443	42028	38068	34620	37387	34984	36717	32082	29178	29371	27640	-54
CH4 emissions without CH4 from LULUCF			9208	9479	9611	9875	9753	9849	9983	9886	9986	9867	9842	10067	10019	10013	9833	9543	9372	9322	9173	8998	9114	8917	8809	8711	8688	8613	8704	8715	8781	8599	8614	8726	8450	-8
CH4 emissions with CH4 from LULUCF			9502	9773	9904	10169	10046	10141	10274	10177	10275	10156	10130	10355	10307	10300	10120	9831	9663	9617	9471	9298	9415	9215	9104	9001	8975	8898	8993	9005	9070	8894	8916	9032	8761	-8
N2O emissions without N2O from LULUCF			7772	7541	7294	7009	6945	6922	6549	6571	6588	6483	6463	6249	6160	6042	5776	5262	5145	5291	5339	5157	5043	5055	4953	4931	5012	5018	5119	5157	4927	5031	5049	4713	4674	-40
N2O emissions with N2O from LULUCF			7839	7608	7359	7074	7010	6985	6610	6630	6645	6538	6517	6300	6210	6090	5822	5308	5189	5334	5381	5199	5084	5096	4993	4970	5052	5058	5159	5195	4966	5068	5086	4751	4712	-40
HFCs			NO	NO	4	101	144	238	370	372	499	637	728	723	745	765	819	870	892	925	926	951	806	730	728	664	603	452	503	407	475	320	317	275	261	–
PFCs			NO	NO	NO	NO	0	1	2	5	12	16	23	28	28	25	21	19	21	21	18	19	10	7	3	3	2	0	0	1	0	1	0	0	0	–
Unspecified mix of HFCs and PFCs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
SF6			39	63	89	101	120	108	63	68	66	65	59	27	25	28	30	28	29	34	31	33	37	79	134	150	163	133	100	84	76	73	48	15	13	-66
NF3			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Total (without LULUCF)			**70388**	**81069**	**75197**	**77549**	**81510**	**78647**	**91731**	**82217**	**78273**	**75607**	**71308**	**72890**	**72437**	**77429**	**71493**	**67172**	**74879**	**70224**	**66663**	**63933**	**64127**	**58951**	**54416**	**56144**	**51974**	**49256**	**51275**	**48960**	**48801**	**44907**	**42252**	**43246**	**41769**	**-41**
Total (with LULUCF)			**77082**	**87096**	**82133**	**83163**	**86646**	**83965**	**96335**	**87294**	**83267**	**80912**	**76396**	**77466**	**78081**	**82831**	**76696**	**72143**	**80304**	**75819**	**70762**	**67315**	**66488**	**60555**	**55406**	**56817**	**52863**	**49161**	**52142**	**49676**	**51304**	**46438**	**43545**	**43444**	**41388**	**-46**
Total (without LULUCF, with indirect)			**71638**	**82387**	**76495**	**78816**	**82749**	**79858**	**92952**	**83351**	**79373**	**76645**	**72290**	**73834**	**73333**	**78296**	**72324**	**67975**	**75633**	**70933**	**67347**	**64542**	**64716**	**59475**	**54900**	**56611**	**52397**	**49667**	**51666**	**49341**	**49168**	**45254**	**42574**	**43569**	**42055**	**-41**
Total (with LULUCF, with indirect)			**78332**	**88414**	**83431**	**84429**	**87886**	**85175**	**97555**	**88428**	**84366**	**81950**	**77378**	**78411**	**78977**	**83698**	**77527**	**72946**	**81058**	**76528**	**71446**	**67925**	**67076**	**61080**	**55890**	**57284**	**53287**	**49572**	**52533**	**50057**	**51670**	**46785**	**43866**	**43768**	**41674**	**-47**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
1. Energy			52573	63245	57434	59803	63870	60831	74258	64771	60743	58237	53810	55488	55074	60268	54669	51005	58925	54049	50803	48760	49269	43966	39428	41224	36937	34513	36128	33760	33704	30109	27180	28493	27406	-48
2. Industrial processes and product use			2025	2167	2259	2349	2485	2714	2840	2871	3052	3300	3452	3319	3264	3259	3123	2660	2709	2758	2446	2023	1818	1963	2002	1958	1935	1768	1961	1964	1971	1769	1839	1778	1618	-20
3. Agriculture			13831	13721	13592	13587	13420	13478	13086	13120	13120	12713	12682	12733	12794	12598	12570	12369	12063	12259	12246	12071	12024	11995	11987	11967	12086	11965	12146	12180	12044	11935	12089	11785	11523	-17
4. Land use, land-use change and forestry (4)			6694	6027	6936	5614	5137	5317	4603	5077	4993	5305	5087	4576	5645	5402	5203	4971	5425	5595	4099	3382	2361	1604	989	673	889	-95	868	715	2503	1531	1292	198	-381	-106
5. Waste			1960	1936	1913	1810	1734	1625	1547	1456	1358	1358	1364	1350	1304	1304	1131	1138	1182	1159	1168	1079	1016	1027	999	995	1015	1010	1039	1057	1081	1094	1144	1191	1222	-38
6. Other			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	–
Total (with LULUCF) (8)			**77082**	**87096**	**82133**	**83163**	**86646**	**83965**	**96335**	**87294**	**83267**	**80912**	**76396**	**77466**	**78081**	**82831**	**76696**	**72143**	**80304**	**75819**	**70762**	**67315**	**66488**	**60555**	**55406**	**56817**	**52863**	**49161**	**52142**	**49676**	**51304**	**46438**	**43545**	**43444**	**41388**	**-46**

Annex C2 Greenland's greenhouse gas inventories 1990-2022

This annex contains the table summarising the results of the latest greenhouse gas inventories for Greenland 1990-2022.
The information is also reported separately in the National Inventory Document (Nielsen et al., 2024a).

TABLE C2.1 (CRT TABLE 10S6): GREENLAND'S TOTAL EMISSIONS AND REMOVALS OF GREENHOUSE GASES IN THE PERIOD 1990-2022

Note references in the tables:
(1) The column "Base year" is filled with estimates for the base year under the Climate Convention which is 1990. This base year is used to calculate the percentage change in the final column of this table.
(2) Net emissions/removals as reported in table Summary 1.A. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).
(3) In accordance with the UNFCCC reporting guidelines, for Parties that decide to report indirect CO_2 the national totals shall be provided with and without indirect CO_2.
(4) In accordance with the UNFCCC reporting guidelines, HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO_2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.
(5) Includes net CO_2, CH_4 and N_2O from LULUCF.

The notation keys are as follows:
"NO" : Not Occurring,
"NE" : Not Estimated,
"NA" : Not Applicable,
"IE" : Included Elsewhere

Table C2(1) (CRT Table 10s6-format): Greenland's total emissions and removals of greenhouse gases in the period 1990-2022

GREENHOUSE GAS EMISSIONS AND REMOVALS	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
CO2 emissions without net CO2 from LULUCF			625	610	596	546	496	534	597	618	597	595	668	618	580	651	641	645	663	654	678	594	679	726	580	563	523	526	527	544	545	555	537	567	613	-2
CO2 emissions with net CO2 from LULUCF			625	610	596	546	496	535	597	618	598	595	668	619	580	651	641	646	663	655	679	594	680	727	581	564	524	527	528	545	546	557	538	568	615	-2
CH4 emissions without CH4 from LULUCF			18	18	18	17	17	18	18	19	19	18	17	17	17	17	17	18	18	18	17	17	17	17	17	17	16	16	16	16	16	16	16	16	16	-11
CH4 emissions with CH4 from LULUCF			18	18	18	17	17	18	18	19	19	18	17	17	17	17	17	18	18	18	17	17	17	17	17	17	16	16	16	16	16	16	16	16	16	-11
N2O emissions without N2O from LULUCF			11	11	10	10	10	10	11	11	11	11	11	11	11	11	11	12	12	11	13	11	10	11	10	9	9	8	9	9	9	10	10	10	12	12
N2O emissions with N2O from LULUCF			11	11	10	10	10	10	11	11	11	11	11	11	11	11	11	12	12	11	13	11	11	11	10	9	9	9	9	9	9	10	10	10	12	12
HFCs			NO,NE	NO,NE	NO,NE	0	0	0	0	0	1	1	2	3	4	5	6	6	6	6	7	7	7	8	8	9	9	10	10	10	10	11	13	13	12	100
PFCs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0
Unspecified mix of HFCs and PFCs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0
SF6			NO,NE	NO,NE	NO,NE	NO,NE	NO,NE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
NF3			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0
Total (without LULUCF)			654	639	624	573	523	563	627	649	628	626	698	650	612	684	675	680	698	689	715	628	714	762	615	598	557	560	562	578	579	592	576	606	654	0
Total (with LULUCF)			654	639	624	573	524	563	627	649	629	626	699	651	613	685	676	681	699	690	716	629	715	763	616	599	558	561	563	580	580	593	577	607	655	0
Total (without LULUCF, with indirect)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
Total (with LULUCF, with indirect)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
1. Energy			625	610	596	546	496	534	597	618	596	594	668	618	580	650	640	645	663	654	679	593	679	726	579	563	522	525	526	543	544	555	537	566	613	-2
2. Industrial processes and product use			1	1	1	1	1	1	0	1	1	2	3	4	5	6	7	7	7	7	8	8	8	9	9	10	10	11	11	11	11	12	14	14	13	2394
3. Agriculture			10	10	9	8	9	10	10	11	11	10	10	10	10	10	10	11	10	10	11	10	10	10	10	10	10	9	9	9	9	9	9	10	12	12
4. Land use, land-use change and forestry (4)			0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	408
5. Waste			18	18	18	18	18	18	19	19	19	19	18	18	18	18	18	18	18	18	18	17	17	17	16	15	15	15	16	16	16	16	16	16	16	-9
6. Other																																				
Total (with LULUCF) (8)			654	639	624	573	524	563	627	649	629	626	699	651	613	685	676	681	699	690	716	629	715	763	616	599	558	561	563	580	580	593	577	607	655	0

Annex C3 The Faroe Islands' greenhouse gas inventories 1990-2022

This annex contains the table summarising the results of the latest greenhouse gas inventories for the Faroe Islands 1990-2022.
The information is also reported separately in the National Inventory Document (Nielsen et al., 2024a).

TABLE C3.1 (CRT TABLE 10S6): FAROE ISLANDS' TOTAL EMISSIONS AND REMOVALS OF GREENHOUSE GASES IN THE PERIOD 1990-2022

Note references in the tables:
(1) The column "Base year" is filled with estimates for the base year under the Climate Convention which is 1990. This base year is used to calculate the percentage change in the final column of this table.
(2) Net emissions/removals as reported in table Summary 1.A. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).
(3) In accordance with the UNFCCC reporting guidelines, for Parties that decide to report indirect CO_2 the national totals shall be provided with and without indirect CO_2.
(4) In accordance with the UNFCCC reporting guidelines, HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO_2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.
(5) Includes net CO_2, CH_4 and N_2O from LULUCF.

The notation keys are as follows:
"NO" : Not Occurring,
"NE" : Not Estimated,
"NA" : Not Applicable,
"IE" : Included Elsewhere

Table C3(1) (CRT Table 10s6-format): Faroe Islands' total emissions and removals of greenhouse gases in the period 1990-2022

GREENHOUSE GAS EMISSIONS AND REMOVALS	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
CO2 emissions without net CO2 from LULUCF			670	650	640	530	535	541	562	557	601	630	667	841	790	794	796	794	781	808	741	772	848	731	817	790	820	790	789	950	1047	1090	1129	1132	951	42
CO2 emissions with net CO2 from LULUCF			704	684	674	564	569	575	596	591	635	664	702	875	824	828	830	829	816	843	776	807	884	766	852	825	855	825	824	986	1082	1125	1164	1167	985	40
CH4 emissions without CH4 from LULUCF			36	34	35	35	36	36	36	36	36	36	37	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	37	37	38	6
CH4 emissions with CH4 from LULUCF			36	34	35	35	36	36	36	36	36	36	37	36	36	37	37	36	36	36	36	36	36	36	36	36	37	37	37	37	37	37	37	37	38	6
N2O emissions without N2O from LULUCF			67	67	66	65	81	66	66	65	66	66	66	67	67	67	67	67	67	67	66	66	66	66	66	66	66	66	65	67	68	68	69	68	67	1
N2O emissions with N2O from LULUCF			67	67	66	65	81	66	66	65	66	66	66	67	67	67	67	67	67	67	66	66	66	66	66	66	66	66	65	67	68	68	69	68	67	1
HFCs			NO	NO	NO	NO	0	0	0	1	1	4	5	8	10	12	13	13	14	14	15	14	15	14	19	24	32	41	52	59	57	63	62	68	65	100
PFCs																																				
Unspecified mix of HFCs and PFCs																																				
SF6			NO	NO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	100
NF3																																				
Total (without LULUCF)			**772**	**751**	**741**	**630**	**653**	**643**	**664**	**660**	**704**	**736**	**775**	**952**	**903**	**909**	**912**	**910**	**897**	**925**	**857**	**889**	**966**	**847**	**939**	**917**	**955**	**934**	**943**	**1114**	**1209**	**1259**	**1298**	**1306**	**1121**	**45**
Total (with LULUCF)			**806**	**785**	**775**	**664**	**688**	**678**	**698**	**693**	**738**	**770**	**809**	**986**	**938**	**943**	**947**	**945**	**933**	**960**	**893**	**924**	**1001**	**882**	**974**	**952**	**990**	**970**	**978**	**1149**	**1245**	**1294**	**1333**	**1341**	**1156**	**43**
Total (without LULUCF, with indirect)			**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0**
Total (with LULUCF, with indirect)			**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
1. Energy			674	655	644	534	539	545	565	561	605	634	671	845	793	798	799	798	785	811	744	776	852	734	821	793	824	794	792	955	1052	1095	1135	1138	955	42
2. Industrial processes and product use			2	2	2	1	1	1	1	2	3	5	6	9	11	13	14	14	15	15	16	15	16	15	20	26	33	43	54	61	59	65	64	70	67	3811
3. Agriculture			90	88	88	89	106	91	91	90	90	90	91	91	91	90	90	90	90	90	89	89	89	89	89	89	88	88	87	87	89	88	89	88	88	-1
4. Land use, land-use change and forestry (4)			34	34	34	34	34	34	34	34	34	34	35	34	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	3
5. Waste			7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	11	11	59
6. Other																																				
Total (with LULUCF) (8)			**806**	**785**	**775**	**664**	**688**	**678**	**698**	**693**	**738**	**770**	**809**	**986**	**938**	**943**	**947**	**945**	**933**	**960**	**893**	**924**	**1001**	**882**	**974**	**952**	**990**	**970**	**978**	**1149**	**1245**	**1294**	**1333**	**1341**	**1156**	**43**

Annex C4 The Kingdom of Denmark's greenhouse gas inventories 1990-2022

This annex contains the table summarising the results of the latest greenhouse gas inventories for the Kingdom of Denmark 1990-2022.
The inventories for the Kingdom of Denmark are the aggregation of the inventories for Denmark, the inventories for Greenland and the inventories for the Faroe Islands.
The information is also reported separately in the National Inventory Document (Nielsen et al., 2024a).

TABLE C4.1 (CRT TABLE 10S6): KINGDOM OF DENMARK'S TOTAL EMISSIONS AND REMOVALS OF GREENHOUSE GASES IN THE PERIOD 1990-2022

Note references in the tables:
(1) The column "Base year" is filled with estimates for the base year under the Climate Convention which is 1990. This base year is used to calculate the percentage change in the final column of this table.
(2) Net emissions/removals as reported in table Summary 1.A. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).
(3) In accordance with the UNFCCC reporting guidelines, for Parties that decide to report indirect CO_2 the national totals shall be provided with and without indirect CO_2.
(4) In accordance with the UNFCCC reporting guidelines, HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO_2 equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.
(5) Includes net CO_2, CH_4 and N_2O from LULUCF.

The notation keys are as follows:
"NO" : Not Occurring,
"NE" : Not Estimated,
"NA" : Not Applicable,
"IE" : Included Elsewhere

Table C4(1) (CRT Table 10s6-format): Kingdom of Denmark's (i.e. the sum of Denmark's, Greenland's and the Faroe Islands' GHG inventories) total emissions and removals of greenhouse gases in the period 1990-2022

GREENHOUSE GAS EMISSIONS AND REMOVALS	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
CO2 emissions without net CO2 from LULUCF			54664	65246	59437	61539	65578	62606	75922	66489	62321	59765	55529	57255	56829	62000	56450	52889	60864	56093	52594	50140	50645	45619	41186	43037	38847	36355	38163	36091	36133	32529	29891	31215	29935	42
CO2 emissions with net CO2 from LULUCF			61030	70947	66047	66829	70392	67603	80207	71251	67002	64760	60310	61527	62171	67103	61355	57562	65989	61386	56389	53216	52699	46921	41877	43417	39446	35972	38739	36515	38345	33764	30880	31106	29240	40
CH4 emissions without CH4 from LULUCF			9262	9532	9663	9927	9806	9903	10038	9942	10041	9921	9896	10121	10073	10067	9887	9597	9425	9376	9227	9051	9168	8971	8862	8764	8741	8666	8756	8767	8834	8652	8668	8780	8504	6
CH4 emissions with CH4 from LULUCF			9556	9826	9956	10220	10100	10196	10329	10233	10330	10211	10184	10409	10360	10354	10174	9885	9717	9671	9525	9352	9469	9268	9158	9055	9028	8951	9045	9058	9123	8947	8969	9086	8816	6
N2O emissions without N2O from LULUCF			7849	7619	7370	7085	7037	6998	6626	6647	6665	6560	6540	6327	6238	6119	5854	5341	5224	5369	5418	5234	5120	5132	5029	5006	5087	5093	5194	5232	5004	5109	5128	4791	4753	1
N2O emissions with N2O from LULUCF			7916	7685	7436	7150	7101	7061	6687	6706	6722	6615	6594	6379	6288	6167	5900	5386	5268	5413	5460	5275	5161	5172	5070	5045	5127	5133	5234	5270	5042	5146	5165	4829	4791	1
HFCs			NO	NO	4	101	145	238	371	373	501	642	735	734	759	782	838	889	911	945	947	972	828	752	756	698	644	503	566	477	541	393	391	356	339	100
PFCs			NO	NO	NO	NO	0	1	2	5	12	16	23	28	28	25	21	19	21	21	18	19	10	7	3	3	2	0	0	1	0	1	0	0	0	
Unspecified mix of HFCs and PFCs			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
SF6			39	63	89	101	121	108	63	68	67	65	59	27	25	28	31	28	29	34	31	33	37	79	134	150	164	133	100	84	77	74	49	16	14	100
NF3			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (without LULUCF)			**71814**	**82459**	**76562**	**78752**	**82686**	**79854**	**93021**	**83525**	**79606**	**76969**	**72782**	**74492**	**73952**	**79021**	**73080**	**68762**	**76474**	**71838**	**68235**	**65450**	**65807**	**60559**	**55970**	**57659**	**53486**	**50750**	**52779**	**50653**	**50589**	**46758**	**44126**	**45158**	**43544**	**45**
Total (with LULUCF)			**78542**	**88521**	**83532**	**84400**	**87858**	**85206**	**97659**	**88637**	**84634**	**82308**	**77904**	**79103**	**79631**	**84459**	**78319**	**73769**	**81935**	**77469**	**72371**	**68868**	**68204**	**62200**	**56996**	**58368**	**54411**	**50692**	**53684**	**51404**	**53129**	**48326**	**45454**	**45393**	**43200**	**43**
Total (without LULUCF, with indirect)			**71638**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0**
Total (with LULUCF, with indirect)			**78332**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**0**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Reference year/period for NDC (1)	Base year (2)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change from 1990 to latest reported year
			CO2 equivalents (kt) (3)																																	(%)
1. Energy			53872	64510	58674	60882	64904	61910	75420	65949	61944	59465	55149	56951	56447	61716	56109	52447	60373	55514	52225	50129	50801	45427	40828	42580	38283	35831	37447	35258	35301	31759	28851	30197	28975	42
2. Industrial processes and product use			2027	2170	2261	2351	2487	2715	2842	2874	3056	3307	3461	3332	3280	3278	3144	2682	2731	2780	2469	2047	1842	1987	2032	1994	1979	1821	2026	2036	2040	1846	1917	1861	1698	3811
3. Agriculture			13930	13819	13690	13684	13536	13578	13187	13221	13221	12814	12782	12834	12895	12698	12670	12469	12163	12359	12346	12170	12123	12093	12086	12065	12185	12063	12243	12276	12141	12032	12187	11882	11623	-1
4. Land use, land-use change and forestry (4)			6728	6062	6970	5648	5172	5352	4638	5112	5028	5339	5122	4611	5679	5437	5238	5007	5461	5631	4135	3418	2397	1641	1026	709	926	-58	904	752	2539	1568	1329	235	-345	3
5. Waste			1984	1961	1938	1835	1759	1651	1572	1482	1384	1384	1390	1375	1330	1329	1157	1164	1208	1185	1194	1104	1041	1052	1024	1020	1039	1035	1064	1082	1107	1120	1171	1217	1249	59
6. Other			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (with LULUCF) (8)			**78542**	**88521**	**83532**	**84400**	**87858**	**85206**	**97659**	**88637**	**84634**	**82308**	**77904**	**79103**	**79631**	**84459**	**78319**	**73769**	**81935**	**77469**	**72371**	**68868**	**68204**	**62200**	**56996**	**58368**	**54411**	**50692**	**53684**	**51404**	**53129**	**48326**	**45454**	**45393**	**43200**	**43**

Annex D Information on greenhouse gas emission projections

This annex consists of the following five sub-annexes:

Annex D1: The results of Denmark's 2024 'with measures' projection of greenhouse gas emissions 2025-2040 (CSO24) [CTF Table 7].

Annex D2: Projections of the key indicator 2025-2040 (CSO24) [CTF Table 10].

Annex D3: Key underlying assumptions and parameters used for projections 2025-2040 (CSO24) [CTF Table 11].

Annex D4: Key models used in the elaboration of greenhouse gas projections.

Annex D5: A comparison of the 2024 greenhouse gas inventory submission with the "with measures" projections of Denmark's total greenhouse gas emissions included in Denmark's NC1 to NC8 and BTR1

Annex D1 The results of Denmark's 2024 'with measures' projection of greenhouse gas emissions 2025-2040 (CSO24)

This annex contains the results of Denmark's 'with measures' projection of greenhouse gas emissions 2025-2035/2040 as published in 2024 in *Denmark's Climate Status and Outlook 2024* (CSO24)[79].

Note to Table D1(1) (= Table 7 in the CTF):

Table D1(1) shows the historical and projected greenhouse gas emissions in ´000 tonnes CO_2 equivalents for total greenhouse gas emissions (GHGs), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6) respectively.

As Denmark is able report historic inventories for emission of HFCs and PFCs separately, separate projections of future emissions of HFCs and PFCs have been elaborated (i.e. no inventory or projection as regards emissions of mixtures of HFCs and PFCs). Furthermore, with no historic emissions of NF_3, it is projected that Denmark's future emissions of NF_3 will also be zero.

The historical emission data for 2022 are from the December 2024 inventory submission.

The projected emission data 2025-2040 are from the 2024 'with measures' projection of greenhouse gas emissions 2023-2035 as published in 2024 in Denmark's Climate Status and Outlook 2024 (CSO24). CSO24 contains no estimates for 2036-2040. For purpose of reporting estimates 2036-2040, the estimations with the projection models have been prolonged until 2040 in the frozen policy (WEM) scenario.

In Table 7, both the inventory data and the projection estimates follow the CRT format used for the reporting of annual inventories to the extent possible. However, the following deviations should be noted:

- In the annual inventories, Denmark include indirect CO_2 emissions in the national total. This is shown separately and included in the total for the inventory year. In the projection models used for the projected estimates shown in the table, the projected (minor) contribution from indirect CO_2 emissions are included in the relevant sectors where these emissions occur. Emissions of indirect CO_2 are therefore not shown separately for the projected years.
- As funds have been allocated through several channels to support implementation of Carbon Capture and Storage in Denmark (see Chapter 4.3.4), the projections also include the estimated effects of these initiatives. However, it is uncertain in which sectors CCS-projects will be implemented as the support for CCS-projects will be based on tenders. For the purpose of including the effect of CCS-projects in the projection, the total effects of CCS has been placed under the energy sector (i.e.: 1A1a), although all of the effects of CCS will likely not be included here in future inventory reporting, but rather in the relevant sectors in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the 2019 IPCC Refinement.
- AR5 GWPs have been used for both inventory data and the projections.

In Table 7, the inventory data for 2022 and the projection estimates for 2025-2040 are shown in the required CTF format for Denmark.

However, when using projections in tracking of progress towards the joint EU target for 2030 in the EU NDC under the Paris Agreement, only projections of total EU greenhouse gas emissions are relevant. Information on projections of total EU greenhouse gas emissions can be obtained from Chapter 2.6 in BTR1 of the European Union.

[79] https://www.kefm.dk/klima/klimastatus-og-fremskrivning

Table D1(1): The result of Denmark's 'with measures' greenhouse gas projection 2025-2040 – by Sector and by gas
Source: *Denmark's Climate Status and Outlook 2024*

7. Information on projections of greenhouse gas emissions and removals under a 'with measures' scenario [a, b, 1]

Back to index

	Most recent year in the Party's national inventory report	*Projections of GHG emissions and removals*			
	(kt CO_2 eq) [c]	*(kt CO_2 eq)* [c]			
	2022	*2025*	*2030*	*2035*	*2040*
Sector [d]					
Energy	15378.38	11052.90	4207.46	3288.83	2848.44
Transport	12027.77	10304.24	8168.51	5853.44	3615.54
Industrial processes and product use	1678.32	1578.83	1309.69	1255.49	1224.60
Agriculture	11522.98	10688.49	10009.99	9719.29	9488.40
Forestry/LULUCF	-380.99	689.17	687.85	-629.76	-762.39
Waste management/waste	1222.16	944.95	1001.01	1001.72	989.32
Other (specify)[2]	225.62	IE	IE	IE	IE
Gas					
CO_2 emissions including net CO_2 from LULUCF	27700.66	22606.88	13372.00	8904.96	6187.46
CO_2 emissions excluding net CO_2 from LULUCF	28431.53	22285.96	13238.41	10126.28	7532.34
CH_4 emissions including CH_4 from LULUCF	8761.37	7819.90	7536.91	7306.08	7054.40
CH_4 emissions excluding CH_4 from LULUCF	8450.01	7492.16	7027.69	6763.47	6523.98
N_2O emissions including N_2O from LULUCF	4712.04	4530.35	4255.90	4138.59	4072.03
N_2O emissions excluding N_2O from LULUCF	4673.52	4489.85	4210.85	4089.65	4019.94
HFCs	261.47	288.21	206.36	125.93	76.46
PFCs	0.01	0.01	0.00	0.00	0.00
SF_6	13.07	13.22	13.33	13.45	13.56
NF_3	NO,NA	NO,NA	NO,NA	NO,NA	NO,NA
Other (specify)[2]	225.62	IE	IE	IE	IE
Total with LULUCF[3]	**41674.24**	**35258.57**	**25384.50**	**20489.01**	**17403.91**
Total without LULUCF[3]	**42055.23**	**34569.40**	**24696.65**	**21118.77**	**18166.29**

[a] Each Party shall report projections pursuant to paras. 93–101 of the MPGs; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report such projections (para. 92 of the MPGs).

[b] Those developing country Parties that need flexibility in the light of their capacities with respect paras. 93–101 of the MPGs can instead report using a less detailed methodology or coverage (para. 102 of the MPGs).

[c] Projections shall begin from the most recent year in the Party's national report and extend at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement (para. 95 of the MPGs).

[d] In accordance with para. 82(f) of the MPGs.

Custom footnotes:

[1] *Denmark's inventory data and projections (i.e. without Greenland and Faroe Islands) as only Denmark is in the geografical scope of the EU NDC.*

[2] *Indirect CO_2 is included here for 2022. In the projections, indirect CO_2 is included under the relevant sectors, where the emissions occur.*

[3] *Indirect CO_2 is included in the totals with and without LULUCF for all the years.*

Annex D2: Projections of key indicators 2025-2040 (CSO24) [CTF Table 10].

Table D2(1) shows the key indicator for Denmark's contribution to total EU GHG emissions where the latter is relevant as a key indicator for showing progress towards the GHG emission reduction target in the EU NDC.

Table D2(1): The total net GHG emissions result of Denmark's 'with measures' greenhouse gas projection 2025-2040 (with LULUCF and with indirect CO2)
Source: *Denmark's Climate Status and Outlook 2024*

10. Projections of key indicators[a, b]

Back to index

Key indicators [c]	*Unit, as applicable*	*Most recent year in the Party's national inventory report, or the most recent year for which data are available*	*Projections of key indicators* [d]			
		2022	2025	2030	2035	2040
Denmark's total net GHG emissions (with LULUCF, with indirect CO2)	(kt CO2 eq)	41674	35259	25385	20489	17404

Notes: The Party could add rows for each additional key indicator.

[a] Each Party shall report projections pursuant to paras. 93–101 of the MPGs; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report such projections (para. 92 of the MPGs).

[b] Those developing country Parties that need flexibility in the light of their capacities with respect paras. 93–101 of the MPGs can instead report using a less detailed methodology or coverage (para. 102 of the MPGs).

[c] Each Party shall also provide projections of key indicators to determine progress towards its NDC under Article 4 of the Paris Agreement (para. 97 of the MPGs).

[d] Future years extended to at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement (para. 95 of the MPGs).

Custom footnotes:

[1] *Denmark's inventory data and projections (i.e. without Greenland and Faroe Islands) as only Denmark is in the geografical scope of the EU NDC.*

[2] *Both emissions in the LULUCF sector and emissions of indirect CO2 are included in Denmark's total GHG emissions used as key indicator for Denmark's share of total EU GHG emissions, where the latter is relevant as a key indicator for showing progress towards the GHG emission reduction target in the EU NDC.*

Annex D3: Key underlying assumptions and parameters used for projections 2025-2040 (CSO24) [CTF Table 11].

Table D3(1) shows the key indicator for Denmark's contribution to total EU GHG emissions where the latter is relevant as a key indicator for showing progress towards the GHG emission reduction target in the EU NDC.

Table D3(1): Key underlying assumptions and parameters used for projections 2025-2040 (CSO24)
Source: *Denmark's Climate Status and Outlook 2024*

11. Key underlying assumptions and parameters used for projections[a, b]

Back to index

Key underlying assumptions and parameters[c]	*Unit, as applicable*	*Most recent year in the Party's national inventory report, or the most recent year for which data are available*	*Projections of underlying assumption/parameters[d]*			
		2022 [1]	*2025*	*2030*	*2035*	*2040*
Population	Number of persons	5547683	5949329	6047826	6139958	6139958
Gross domestic product (GDP), growth rate	%	6.8	0.8	1.3	1.2	1.2
Gross domestic product (GDP)	EUR million (2016), constant prices	257200	333800	347900	365700	365700
Gross value added (GVA) - total	EUR million (2016), constant prices	223500	291100	303000	318500	318500
Gross value added (GVA) - agriculture	EUR million (2016), constant prices	3300	2800	3000	3200	3200
Gross value added (GVA) - construction	EUR million (2016), constant prices	10100	15900	18000	18700	18700
Gross value added (GVA) - services	EUR million (2016), constant prices	150400	186300	194400	205600	205600
Gross value added (GVA) - energy sector	EUR million (2016), constant prices	8700	3000	3300	2800	2800
Gross value added (GVA) - industry	EUR million (2016), constant prices	30700	49700	45800	46600	46600
Disposable income of households	EUR / year	116500	205300	244100	285300	285300
Number of passenger-kilometres - road	million pkm	42319	44511	47228	49464	49464
Freight transport tonnes-kilometres - road	million tkm	10194	10295	10738	11111	11111
International (wholesale) fuel import prices - for coal	EUR(2016) / GJ		4.08	3.08	3.15	3.15
International (wholesale) fuel import prices - for crude oil	EUR(2016) / GJ		12.53	11.27	11.27	11.27
International (wholesale) fuel import prices - for natural gas	EUR(2016) / GJ		13.67	7.83	8.08	8.08
EU ETS carbon price	EUR (2016) / t CO2	78.39	87.65	108.19	135.97	135.97

Note: The Party could add rows for each additional key underlying assumptions and parameters.

[a] Each Party shall report projections pursuant to paras. 93–101 of the MPGs; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report such projections (para. 92 of the MPGs).

[b] Those developing country Parties that need flexibility in the light of their capacities with respect to paragraphs 93–101 of the MPGs can instead report using a less detailed methodology or coverage (para. 102 of the MPGs).

[c] Information provided by each Party in describing the methodology used to develop the projections should include key underlying assumptions and parameters used for projections (e.g. gross domestic product growth rate/level, population growth rate/level) (para. 96(a) of the MPGs).

[d] Future years extended to at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement (para. 95 of the MPGs).

Custom footnotes:

[1] *In the 2022 column, the values reported are the values from the base year of the particular parameter, which is 2010 for most of the parameters, but 2021 for "GDP growth rate" and 2022 for "Number of passenger-kilometres - road", "Freight transport tonnes-kilometres - road" and "EU ETS carbon price".*

Annex D4 Key models used in the elaboration of greenhouse gas projections

Contents

Table D4(1) Ramses

Field	Description
Model 1	
Model name (abbreviation)	Ramses
Full model name	Ramses
Model version and status	
Latest date of revision	
URL to model description	https://ens.dk/sites/ens.dk/files/Statistik/ramses_energisystemmodel_-_til_hjemmesiden_20220426_final.pdf
Model type	Dispatch model for electricity and district heating supply
Summary	Ramses is a dispatch model for electricity and district heating supply. The model finds the economically optimal production dispatch for all plants in the modelled system, so that the electricity and district heating demand is covered. The model includes separate electricity zones with limited connectivity to neighbouring zones (NTCs) as well as district heating zones. Each plant in the model is connected to either an electricity zone, a district heating zone or both. For each time step, one hour, each zone is constrained by an energy balance where consumption and export is equal to production and import.
Intended field of application	Ramses is used in forecast and scenarios for the Danish energy system. The purpose is to estimate the amount of fuel spend for electricity and district heating supply, as well the cost of electricity and heat, in a given scenario.
Description of main input data categories and data sources	Power plant production capacitates: o Sources: Danish Energy Agency (own data) and ENTSO-E (Transparency platform, TYNDP and ERAA) NTCs between bidding zones: o Sources: ENTSO-E (Transparency platform, TYNDP and ERAA) Power plant technology data: o Sources: https://ens.dk/sites/ens.dk/files/Analyser/technology_data_catalogue_for_el_and_dh.pdf
Validation and evaluation	
Output quantities	
GHG covered	Covers CO2, CH4 and N2O emissions from electricity and district heating supply. Includes gas leaks from power plants, but not leaks from gas supply.
Sectoral coverage	
Geographical coverage	Electricity production covers most of Europe, excluding Balkan, Greece, Belarus, Ukraine, Russia, Romania and Bulgaria. District heating is model for Denmark only, divided into 60 district heating zones, some represent actual district heating areas other represent an aggregation of smaller district heating areas.
Temporal coverage (e.g. time steps, time span)	A model run covers one year, and a scenario is normally comprised of multiple model runs to span multiple years. The time step in the model is 1 hour, and the model runs in steps of 1 week with perfect foresight.
Other models which interact with this model, and type of interaction (e.g. data input to this model, use of data output from this model)	IntERACT o Forecast the energy consumption from most sectors in Denmark, give input to the electricity and district heating demand o Used forecast from Ramses regarding electricity and district heating prices
Input from other models	Electricity and district heating demand
References to the assessment and the technical reports that underpin the projections and the models used	
Model structure (if diagram please attach to your submission in Reportnet)	
Comments or other relevant information	

Table D4(2) IntERACT

Field	Description
Model 2	
Model name (abbreviation)	IntERACT
Full model name	INTegrated Economic eneRgy Applied Computational Tool
Model version and status	Version 2022 (used for Danish 2022 national projections)
Latest date of revision	2022
URL to model description	https://ens.dk/en/our-services/projections-and-models/models/documentation-interact
Model type	Hybrid model
Summary	The IntERACT model setup integrates a general equilibrium model with a technical energy system model. IntERACT is designed to evaluate long term consequences of climate and energy related policy initiatives.
Intended field of application	Baseline projections, scenarios and policy assessment related to energy and climate policy issues.
Description of main input data categories and data sources	National accounts statistics, energy statistics, energy prices and ETS prices, regulation (e.g., existing taxes), estimated subsitution and income elasticiteties, technology catalogues, bottom-up data related to energy services demand in households and industri.
Validation and evaluation	Validating and evaluation is done as part the work with the national projections.
Output quantities	Energy unit, cost, emissions, capacities.
GHG covered	The model includes various GHG, however, for the Danish national projections the model is responsible for energy demand, whereas GHG is calculated externally based on these demand by DCE ()
Sectoral coverage	The model covers all sectorals, however, for the national projections the model is only responsible for projecting industry and households GHG.
Geographical coverage	Denmark
Temporal coverage (e.g. time steps, time span)	The model is usually solved until 2050. Currently it can be solved using 32 timeslices (focusing on critical hours for the electricity system) or using 192 timeslices to represent 8 representative days on an annual level.
Other models which interact with this model, and type of interaction (e.g. data input to this model, use of data output from this model)	IntERACT exchange information with the power dispatch model RAMSES. IntERACT provides information on electricity and distrcit heating demand for the RAMSES model.
Input from other models	Electricity prices.
References to the assessment and the technical reports that underpin the projections and the models used	1) https://www.sciencedirect.com/science/article/pii/S0360544218323648?via%3Dihub 2) https://www.sciencedirect.com/science/article/pii/S2211467X18301044?via%3Dihub
Model structure (if diagram please attach to your submission in Reportnet)	
Comments or other relevant information	

Table D4(3) FREM

Field	Description
Model 3	
Model name (abbreviation)	FREM
Full model name	FRemskrivning af Energiforbrug ved Mobilitet
Model version and status	Latest full version frem Febuary 2022.
Latest date of revision	Currently being updated
URL to model description	https://ens.dk/sites/ens.dk/files/Basisfremskrivning/2020.06.25._model_og_metode_til_fremskrivning_af_energiforbruget_i_transportsektoren.pdf
Model type	
Summary	
Intended field of application	Intended for use in estimating the future energyconsumption of transport
Description of main input data categories and data sources	Energistatistics ENS. Current fleet and sales DTU/bilstatistikken, Yearly driving and survivalrates DTU
Validation and evaluation	
Output quantities	The model returns the energyconsumption for differnet transport sectors split on year, fuel and categories(cars, vans, busses, trucks, motorcycles, s-train, regional-train, ferries and so on.) for road transport futher split on technologi, size and age of the vehicle.
GHG covered	Energy-related CO2 emissions can be estimated using simple emissionfactors
Sectoral coverage	Road, rail, sea, air and other(mostly military)
Geographical coverage	DK. No futher geographical coverage.
Temporal coverage (e.g. time steps, time span)	Year, no further temporal coverage
Other models which interact with this model, and type of interaction (e.g. data input to this model, use of data output from this model)	Output from this model is combined with Ramses and IntERACT, for an estimation of the full energysystem
Input from other models	Uses as input, results from CCM and FSM, described in in the following
References to the assessment and the technical reports that underpin the projections and the models used	
Model structure (if diagram please attach to your submission in Reportnet)	
Comments or other relevant information	

Table D4(4) CCM

Field	Description
Model 4	
Model name (abbreviation)	CCM
Full model name	Car Choice Model
Model version and status	Latest full version frem Febuary 2022.
Latest date of revision	Currently being updated
URL to model description	https://ens.dk/sites/ens.dk/files/Analyser/1c-bvm_kf22_modelnotat_-_bilvalgsmodellen.pdf
Model type	Multinomial Logit model
Summary	
Intended field of application	Estimation of future technology and size choice for personal cars.
Description of main input data categories and data sources	Car parameters such as price, models, range and emissions Bilstatistikken/SKM.
Validation and evaluation	The model coeffecient is estimated based on a stated preference study, see: https://www.researchgate.net/publication/345328450_Analyses_of_EV_buying_preferences_SP_method_and_model
Output quantities	The model returns a destribution on tech and size for cars each year.
GHG covered	No
Sectoral coverage	only cars
Geographical coverage	DK. No futher geographical coverage.
Temporal coverage (e.g. time steps, time span)	Year, no further temporal coverage
Other models which interact with this model, and type of interaction (e.g. data input to this model, use of data output from this model)	Output from this model is used in FREM (descriped previously).
Input from other models	
References to the assessment and the technical reports that underpin the projections and the models used	
Model structure (if diagram please attach to your submission in Reportnet)	
Comments or other relevant information	

Table D4(5) FSM – a fleet size model

Field	Description
Model 5	
Model name (abbreviation)	FSM
Full model name	FleetSize Model
Model version and status	Latest full version frem Febuary 2022.
Latest date of revision	Currently being updated
URL to model description	https://ens.dk/sites/ens.dk/files/Basisfremskrivning/1c-bbm_kf22_modelnotat_-_bilbestandsmodellen.pdf
Model type	Autoregressive lag model
Summary	
Intended field of application	Estimation of the future car fleet size
Description of main input data categories and data sources	forecast of population, BNP, Opex and capex of owning af buying a car.
Validation and evaluation	The model is an updated version of the FLEETSIZE model from DTU int he ART study.
Output quantities	Returns the total fleetsize of cars in each forecasting year
GHG covered	no
Sectoral coverage	Cars only
Geographical coverage	DK. No futher geographical coverage.
Temporal coverage (e.g. time steps, time span)	Year, no further temporal coverage
Other models which interact with this model, and type of interaction (e.g. data input to this model, use of data output from this model)	The output of this model is used in the FREM model descriped previously
Input from other models	
References to the assessment and the technical reports that underpin the projections and the models used	
Model structure (if diagram please attach to your submission in Reportnet)	
Comments or other relevant information	

Annex D5 A comparison of the 2024 greenhouse gas inventory submission with the "with measures" projections of Denmark's total greenhouse gas emissions included in Denmark's first to eighth national communication as well as with CSO24 in BTR1

This annex contain information on a comparison of the latest reported greenhouse gas inventory with the "with measures" projections of Denmark's total greenhouse gas emissions included in Denmark's first to eighth national communication.

In Figure D5(1) the "raw" data for projections of Denmark's total greenhouse gas emissions without LULUCF from NC1(1994), NC2(1997), NC3(2003), NC4(2005), NC5(2009), NC6(2013), NC7(2017), NC8(2022/2023) and BTR1/CSO24(2024) are shown together with Denmark's total greenhouse gas emissions in the inventory submitted in December 2024 for the period 1990-2022. As it can been seen no clear conclusion can be drawn from this figure.

However, if the data are normalised to take into account the improvements made in inventory reporting over the same period, the deviations in historic data are diminished as shown in Figure D5(2).

In figure D5(3) also inter-annual variations in temperature and electricity trade is taken into account as CO_2 emissions in Denmark from heat and electricity production are highly sensitive to inter-annual variations in unpredictable climate parameters such as temperature and precipitation, the latter primarily precipitation in Norway and Sweden due to these countries' hydro power based production of electricity for the Nordic electricity market.

Figure D5(3) shows:

- a good correlation between the inventory data and the projection until 2005 in NC1, the projection until 2010 in NC2, and the projection until 2015 in NC6, and
- a significant deviation in the projections for 2015 in NC3, NC4 and NC5 from the inventory data for 2015.

A closer look into the detailed level of sectors and source categories in the projections in NC1 and NC2, however, reveal major differences. But outliers in both directions seem to even out each other in the total due to the relatively high number of separately projected sub-categories.

Figure C5(1) "Raw" data for projections of Denmark's total greenhouse gas emissions from NC1(1994), NC2(1997), NC3(2003), NC4(2005), NC5(2009), NC6(2013), NC7(2017), NC8(2022/23) and BTR1(2024) shown together with Denmark's total greenhouse gas emissions in the inventory submitted in December 2024 for the period 1990-2022 (kt CO_2 equivalent) [NB: LULUCF was not included in the projections in NC1-NC7].

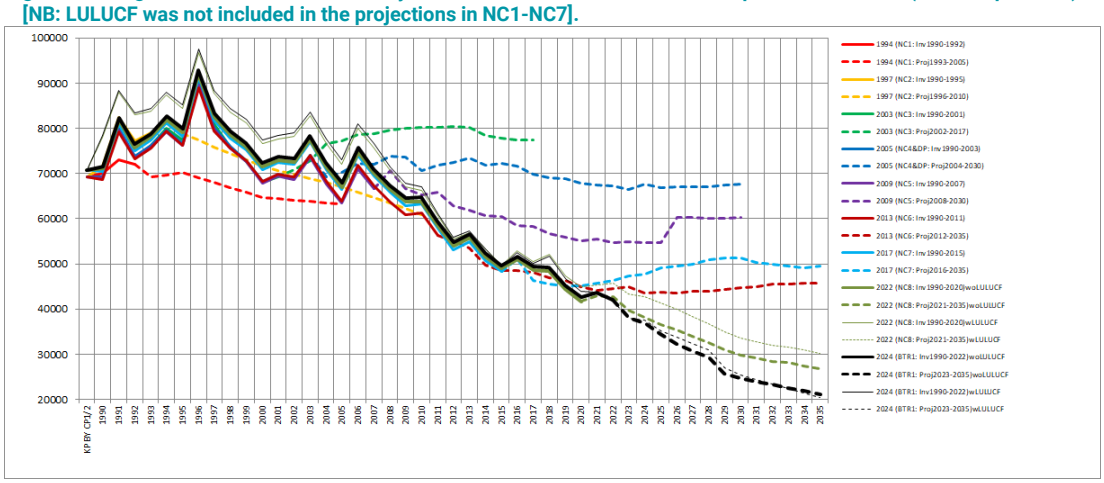


Figure C5(2) The data shown in Figure C5(1) normalised to take into account the improvements made in inventory reporting from 1992 to 2024 (kt CO_2 equivalent).

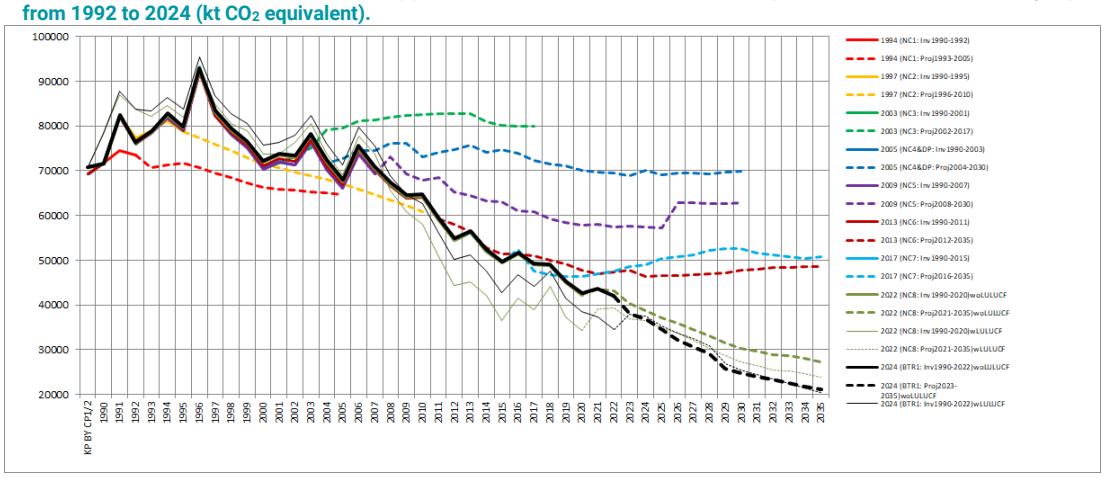
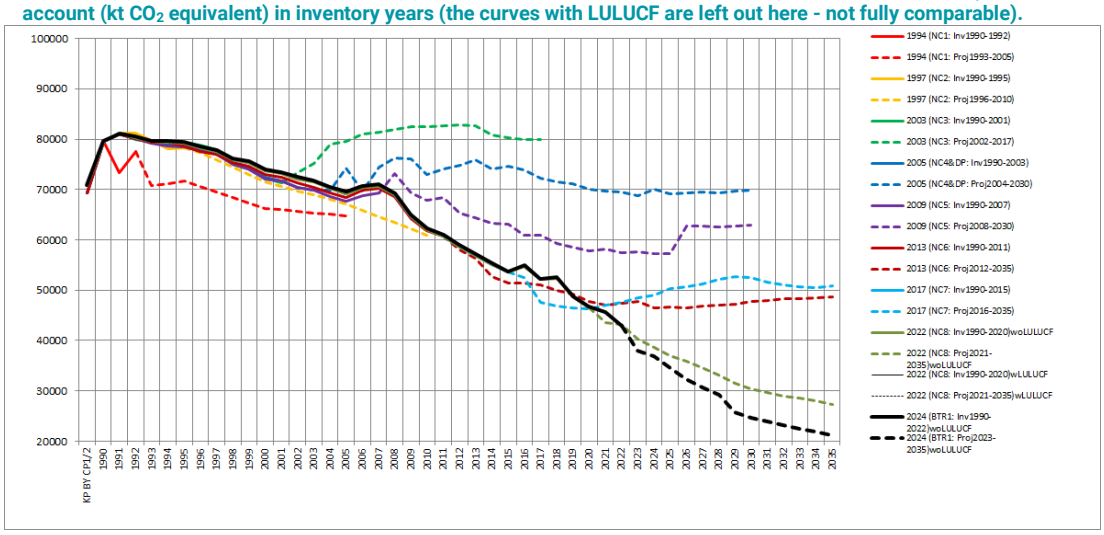


Figure C5(3) The data shown in Figure C5(2) with also inter-annual variations in temperature and electricity trade taken into account (kt CO_2 equivalent) in inventory years (the curves with LULUCF are left out here - not fully comparable).



Annex E Information on support

This annex contains the following information:

Annex E1: Summary information on support committed and disbursed in 2021 and 2022 - in the BR/CTF Table 7 format

Annex E2: Overview of the information reported in the Common Tabular Format in the Support-module of the ETF Reporting Tool

Annex E3: Notes to the information reported in the Common Tabular Format in the Support-module of the ETF Reporting Tool

Annex E4: Information on the Danish Centre for Global Cooperation

Annex E1 Summary information on support committed and disbursed in 2021 and 2022 - in the BR/CTF Table 7 format

Tables in this annex:

- TABLE E1(1): SUPPORT COMMITTED IN 2021
- TABLE E1(2): SUPPORT DISBURSED IN 2021

- TABLE E1(3): SUPPORT COMMITTED IN 2022
- TABLE E1(4): SUPPORT DISBURSED IN 2022

Table E1(1): Support Committed in 2021

	2021 Commitments									
	United States Dollar - USD					National currency				
	Core/ general	Climate-specific				Core/ general	Climate-specific			
		Mitigation	Adaptation	Cross-cutting	Other		Mitigation	Adaptation	Cross-cutting	Other
Total contributions through multilateral channels:	250,023,126	58,896,900	53,721,966	115,988,396	0	1,571,895,394	370,284,808	337,750,000	729,219,044	0
Multilateral climate change funds	0	0	15,905,837	89,072,690	0	0	0	100,000,000	560,000,000	0
Other multilateral climate change funds	0	3,226,469	0	7,737,110	0	0	20,284,808	0	48,643,212	0
Multilateral financial institutions, including regional development banks	224,255,669	55,670,431	32,169,556	3,202,773	0	1,409,895,394	350,000,000	202,250,000	20,135,832	0
Specialized United Nations bodies	25,767,457	0	5,646,572	15,975,823	0	162,000,000	0	35,500,000	100,440,000	0
Total contributions through bilateral, regional and other channels		116,031,165	96,059,112	16,011,707	0		729,487,936	603,923,634	100,665,603	0
Total climate specific by funding type (total for mitigation, adaptation, crosscutting, other)		174,928,065	149,781,077	132,000,103	0		1,099,772,744	941,673,634	829,884,647	0
Total climate specific finance			456,709,245					2,871,331,025		

Exchange rate (USD 1 = DKK 6.287)	6.2870
Source: OECD	
https://data.oecd.org/conversion/exchange-rates.htm	

Total climate specific by funding source (USD)	
ODA	456,709,245
OOF	0
Other	0

Total climate specific by financial instrument (USD)	
Grant	456,709,245
Concessional loan	0
Non-concessional loan	0
Equity	0
Other	0

Table E1(2): Support Disbursed in 2021

	2021 Disbursements									
	United States Dollar - USD					National currency				
	Core/ general	Climate-specific				Core/ general	Climate-specific			
		Mitigation	Adaptation	Cross-cutting	Other		Mitigation	Adaptation	Cross-cutting	Other
Total contributions through multilateral channels:	254,262,394	70,201,884	47,700,190	127,109,534	0	1,598,547,672	441,359,243	299,891,093	799,137,642	0
Multilateral climate change funds	0	0	15,905,837	89,072,690	0	0	0	100,000,000	560,000,000	0
Other multilateral climate change funds	0	3,226,469	0	7,737,110	0	0	20,284,808	0	48,643,212	0
Multilateral financial institutions, including regional development banks	223,723,186	63,292,986	25,423,781	12,098,125	0	1,406,547,672	397,923,000	159,839,314	76,060,911	0
Specialized United Nations bodies	30,539,208	3,682,430	6,370,571	18,201,609	0	192,000,000	23,151,435	40,051,779	114,433,519	0
Total contributions through bilateral, regional and other channels		80,721,199	64,773,388	19,966,627	0		507,494,177	407,230,291	125,530,187	0
Total climate specific by funding type (total for mitigation, adaptation, crosscutting, other)		150,923,083	112,473,578	147,076,162	0		948,853,420	707,121,384	924,667,829	0
Total climate specific finance		410,472,822					2,580,642,632			

Exchange rate (USD 1 = DKK 6.287)	6.2870	Total climate specific by funding source (USD)		Total climate specific by financial instrument (USD)
Source: OECD				
https://data.oecd.org/conversion/exchange-rates.htm		ODA	410,472,822	Grant 410,472,822
		OOF	0	Concessional loan 0
		Other	0	Non-concessional loan 0
				Equity 0
				Other 0

Table E1(3): Support Committed in 2022

	2022 Commitments									
	United States Dollar - USD					National currency				
	Core/ general	Climate-specific				Core/ general	Climate-specific			
		Mitigation	Adaptation	Cross-cutting	Other		Mitigation	Adaptation	Cross-cutting	Other
Total contributions through multilateral channels:	501,951,519	15,615,423	35,839,457	40,595,040	0	3,551,808,950	110,494,732	253,600,000	287,250,503	0
Multilateral climate change funds	0	0	4,239,683	5,317,411	0	0	0	30,000,000	37,626,000	0
Other multilateral climate change funds	0	0	0	13,939,794	0	0	0	0	98,637,980	0
Multilateral financial institutions, including regional development banks	471,504,805	14,132,278	0	5,345,848	0	3,336,367,999	100,000,000	0	37,827,223	0
Specialized United Nations bodies	30,446,714	1,483,145	31,599,774	15,991,987	0	215,440,951	10,494,732	223,600,000	113,159,300	0
Total contributions through bilateral, regional and other channels		54,268,851	90,400,938	41,576,107	0		384,006,388	639,677,037	294,192,530	0
Total climate specific by funding type (total for mitigation, adaptation, crosscutting, other)		69,884,274	126,240,395	82,171,147	0		494,501,120	893,277,037	581,443,033	0
Total climate specific finance			278,295,815					1,969,221,189		

Exchange rate (USD 1 = DKK 7.076)	7.0760
Source: OECD	
https://data.oecd.org/conversion/exchange-rates.htm	

Total climate specific by funding source (USD)		Total climate specific by financial instrument (USD)	
ODA	278,295,815	Grant	278,295,815
OOF	0	Concessional loan	0
Other	0	Non-concessional loan	0
		Equity	0
		Other	0

Table E1(4): Support Disbursed in 2022

	2022 Disbursements									
	United States Dollar - USD					National currency				
	Core/ general	Climate-specific				Core/ general	Climate-specific			
		Mitigation	Adaptation	Cross-cutting	Other		Mitigation	Adaptation	Cross-cutting	Other
Total contributions through multilateral channels:	502,042,649	38,202,471	31,064,109	35,340,652	0	3,552,453,783	270,320,688	219,809,638	250,070,453	0
Multilateral climate change funds	0	0	4,239,683	5,124,863	0	0	0	30,000,000	36,263,532	0
Other multilateral climate change funds	0	3,906	0	13,939,794	0	0	27,637	0	98,637,980	0
Multilateral financial institutions, including regional development banks	471,595,934	36,531,686	4,643,815	6,339,115	0	3,337,012,832	258,498,213	32,859,638	44,855,578	0
Specialized United Nations bodies	30,446,714	1,666,879	22,180,611	9,936,880	0	215,440,951	11,794,839	156,950,000	70,313,363	0
Total contributions through bilateral, regional and other channels		64,892,535	71,841,090	54,221,289	0		459,179,579	508,347,555	383,669,844	0
Total climate specific by funding type (total for mitigation, adaptation, crosscutting, other)		103,095,007	102,905,200	89,561,941	0		729,500,267	728,157,193	633,740,297	0
Total climate specific finance		295,562,148					2,091,397,757			

Exchange rate (USD 1 = DKK 7.076)	7.0760	Total climate specific by funding source (USD)		Total climate specific by financial instrument (USD)	
Source: OECD					
https://data.oecd.org/conversion/exchange-rates.htm		ODA	295,562,148	Grant	295,562,148
		OOF	0	Concessional loan	0
		Other	0	Non-concessional loan	0
				Equity	0
				Other	0

Annex E2 Overview of the information reported in the Common Tabular Format in the Support-module of the ETF Reporting Tool

Tables in this annex:

Table E2(1): Bilateral Support in 2021

(ROW 3-150 OF 504)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency2	USD3	Status
Africa	Contribution to EIP/EFSD (Committed) (Cross-cutting) (CRS ID: 2019001169) (Year: 2021)	0	0	NA	NA	Committed
Africa	Contribution to EIP/EFSD (Provided) (Cross-cutting) (CRS ID: 2019001169) (Year: 2021)	575,530	91,541	575,530	91,541	Disbursed
Africa	The Africa Commission's Energy Initiative (SEFA) (Committed) (Mitigation) (CRS ID: 2020000348) (Year: 2021)	0	0	NA	NA	Committed
Africa	The Africa Commission's Energy Initiative (SEFA) (Provided) (Mitigation) (CRS ID: 2020000348) (Year: 2021)	65,000,000	10,338,609	65,000,000	10,338,609	Disbursed
Africa	Sustainable Energy Fund for Africa (SEFA 2.0) (Committed) (Mitigation) (CRS ID: 2021000302) (Year: 2021)	100,000,000	15,905,552	NA	NA	Committed
Africa	Sustainable Energy Fund for Africa (SEFA 2.0) (Provided) (Mitigation) (CRS ID: 2021000302) (Year: 2021)	50,000,000	7,952,776	50,000,000	7,952,776	Disbursed
Africa	Beyond the Grid Fund for Africa (BGFA) (Committed) (Mitigation) (CRS ID: 2021154037) (Year: 2021)	80,000,000	12,724,441	NA	NA	Committed
Africa	Beyond the Grid Fund for Africa (BGFA) (Provided) (Mitigation) (CRS ID: 2021154037) (Year: 2021)	80,000,000	12,724,441	80,000,000	12,724,441	Disbursed
-Southern Africa	Enhanced Adaptation for Smallholder Agriculture Programme – ASAP+ (IFAD) (Committed) (Cross-cutting) (CRS ID: 2021000279) (Year: 2021)	100,000,000	15,905,552	NA	NA	Committed
-Southern Africa	Enhanced Adaptation for Smallholder Agriculture Programme – ASAP+ (IFAD) (Provided) (Cross-cutting) (CRS ID: 2021000279) (Year: 2021)	100,000,000	15,905,552	100,000,000	15,905,552	Disbursed
-Southern Africa	Denmark's support to the African Water Facility (Committed) (Adaptation) (CRS ID: 2021000291) (Year: 2021)	99,750,000	15,865,788	NA	NA	Committed
-Southern Africa	Denmark's support to the African Water Facility (Provided) (Adaptation) (CRS ID: 2021000291) (Year: 2021)	40,000,000	6,362,221	40,000,000	6,362,221	Disbursed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Committed) (Adaptation) (CRS ID: 2016001291ab) (Year: 2021)	10,000,000	1,590,555	NA	NA	Committed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Provided) (Adaptation) (CRS ID: 2016001291ab) (Year: 2021)	9,500,000	1,511,027	9,500,000	1,511,027	Disbursed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Committed) (Cross-cutting) (CRS ID: 2016001117aa) (Year: 2021)	20,000,000	3,181,110	NA	NA	Committed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Provided) (Cross-cutting) (CRS ID: 2016001117aa) (Year: 2021)	10,000,000	1,590,555	10,000,000	1,590,555	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Committed) (Adaptation) (CRS ID: 2018001211ac) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Provided) (Adaptation) (CRS ID: 2018001211ac) (Year: 2021)	2,096,873	333,519	2,096,873	333,519	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Committed) (Adaptation) (CRS ID: 2018001211ad) (Year: 2021)	10,000,000	1,590,555	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Provided) (Adaptation) (CRS ID: 2018001211ad) (Year: 2021)	3,500,000	556,694	3,500,000	556,694	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Committed) (Adaptation) (CRS ID: 2018001211ab) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Provided) (Adaptation) (CRS ID: 2018001211ab) (Year: 2021)	7,500,000	1,192,916	7,500,000	1,192,916	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 3 Climate Change (Committed) (Cross-cutting) (CRS ID: 2018001210aa) (Year: 2021)	135,832	21,605	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 3 Climate Change (Provided) (Cross-cutting) (CRS ID: 2018001210aa) (Year: 2021)	485,381	77,203	485,381	77,203	Disbursed
Indonesia	UNDP Circular Economy Strategy in Indonesia (Committed) (Mitigation) (CRS ID: 2020000045) (Year: 2021)	0	0	NA	NA	Committed
Indonesia	UNDP Circular Economy Strategy in Indonesia (Provided) (Mitigation) (CRS ID: 2020000045) (Year: 2021)	650,000	103,386	650,000	103,386	Disbursed
Indonesia	Support to World Bank SEA-MAP Project (Committed) (Adaptation) (CRS ID: 2021154085) (Year: 2021)	2,500,000	397,639	NA	NA	Committed
Indonesia	Support to World Bank SEA-MAP Project (Provided) (Adaptation) (CRS ID: 2021154085) (Year: 2021)	2,500,000	397,639	2,500,000	397,639	Disbursed
Global	UN Secretary General's Climate Action Team (Committed) (Cross-cutting) (CRS ID: 2020000482) (Year: 2021)	0	0	NA	NA	Committed
Global	UN Secretary General's Climate Action Team (Provided) (Cross-cutting) (CRS ID: 2020000482) (Year: 2021)	2,000,000	318,111	2,000,000	318,111	Disbursed
Global	UNEP-DHI: Development of SDG 6 Monitoring Framework and Reporting System (Committed) (Adaptation) (CRS ID: 2018001213) (Year: 2021)	0	0	NA	NA	Committed
Global	UNEP-DHI: Development of SDG 6 Monitoring Framework and Reporting System (Provided) (Adaptation) (CRS ID: 2018001213) (Year: 2021)	8,000,000	1,272,444	8,000,000	1,272,444	Disbursed
Global	UNEP-DTU Partnership (Committed) (Mitigation) (CRS ID: 2018001214) (Year: 2021)	0	0	NA	NA	Committed
Global	UNEP-DTU Partnership (Provided) (Mitigation) (CRS ID: 2018001214) (Year: 2021)	9,500,000	1,511,027	9,500,000	1,511,027	Disbursed
Global	UNEP-DTU Partnership (Committed) (Mitigation) (CRS ID: 2018001216) (Year: 2021)	0	0	NA	NA	Committed
Global	UNEP-DTU Partnership (Provided) (Mitigation) (CRS ID: 2018001216) (Year: 2021)	10,000,000	1,590,555	10,000,000	1,590,555	Disbursed
Global	Cool Coalition (Committed) (Mitigation) (CRS ID: 2019001249aa) (Year: 2021)	0	0	NA	NA	Committed
Global	Cool Coalition (Provided) (Mitigation) (CRS ID: 2019001249aa) (Year: 2021)	1,501,435	238,812	1,501,435	238,812	Disbursed
Global	Cool Coalition (Committed) (Mitigation) (CRS ID: 2019001249ab) (Year: 2021)	0	0	NA	NA	Committed
Global	Cool Coalition (Provided) (Mitigation) (CRS ID: 2019001249ab) (Year: 2021)	1,500,000	238,583	1,500,000	238,583	Disbursed
Global	Support for CTCN 2020-2022 (Committed) (Cross-cutting) (CRS ID: 2020000441) (Year: 2021)	0	0	NA	NA	Committed
Global	Support for CTCN 2020-2022 (Provided) (Cross-cutting) (CRS ID: 2020000441) (Year: 2021)	9,993,519	1,589,524	9,993,519	1,589,524	Disbursed
Global	TA support for UNEPs preparation of the SDG7 HLD 2021 (Committed) (Cross-cutting) (CRS ID: 2021000141) (Year: 2021)	440,000	69,984	NA	NA	Committed
Global	TA support for UNEPs preparation of the SDG7 HLD 2021 (Provided) (Cross-cutting) (CRS ID: 2021000141) (Year: 2021)	440,000	69,984	440,000	69,984	Disbursed
Global	Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat's Trust Fund for Developing Countries' Partici	5,000,000	795,278	NA	NA	Committed
Global	Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat's Trust Fund for Developing Countries' Partic	5,000,000	795,278	5,000,000	795,278	Disbursed
Global	World Bank - general contribution ESMAP 2017-20 (Committed) (Adaptation) (CRS ID: 2017001284ab) (Year: 2021)	0	0	NA	NA	Committed
Global	World Bank - general contribution ESMAP 2017-20 (Provided) (Adaptation) (CRS ID: 2017001284ab) (Year: 2021)	1,089,314	173,261	1,089,314	173,261	Disbursed
Global	Danish Support to ESMAP 2020-2024 (Committed) (Mitigation) (CRS ID: 2020000376) (Year: 2021)	0	0	NA	NA	Committed
Global	Danish Support to ESMAP 2020-2024 (Provided) (Mitigation) (CRS ID: 2020000376) (Year: 2021)	22,500,000	3,578,749	22,500,000	3,578,749	Disbursed
Global	Danish support to clean cooking and access to water in Africa through ESMAP (Committed) (Mitigation) (CRS ID: 2021154061) (Year: 2021)	95,000,000	15,110,274	NA	NA	Committed
Global	Danish support to clean cooking and access to water in Africa through ESMAP (Provided) (Mitigation) (CRS ID: 2021154061) (Year: 2021)	95,000,000	15,110,274	95,000,000	15,110,274	Disbursed
Global	Support for Global Water Security and Sanitation Partnership multi donor trust fund 2019-22 (Committed) (Adaptation) (CRS ID: 2019001191) (Yea	0	0	NA	NA	Committed
Global	Support for Global Water Security and Sanitation Partnership multi donor trust fund 2019-22 (Provided) (Adaptation) (CRS ID: 2019001191) (Year:	8,750,000	1,391,736	8,750,000	1,391,736	Disbursed
Global	Global Infrastructure Facility - Developing Climate Smart Infrastructure Projects (Committed) (Cross-cutting) (CRS ID: 2019001256) (Year: 2021)	0	0	NA	NA	Committed
Global	Global Infrastructure Facility - Developing Climate Smart Infrastructure Projects (Provided) (Cross-cutting) (CRS ID: 2019001256) (Year: 2021)	65,000,000	10,338,609	65,000,000	10,338,609	Disbursed
Global	Danish Support to the International Energy Agency Clean Energy Transitions Programme (IEA CETP) 2021-2025 (Committed) (Mitigation) (CRS ID:	0	0	NA	NA	Committed
Global	Danish Support to the International Energy Agency Clean Energy Transitions Programme (IEA CETP) 2021-2025 (Provided) (Mitigation) (CRS ID: 2	223,000	35,469	223,000	35,469	Disbursed
Global	OECD - Clean Energy Finance Investment Mobilisation Programme (Committed) (Mitigation) (CRS ID: 2018001263) (Year: 2021)	0	0	NA	NA	Committed
Global	OECD - Clean Energy Finance Investment Mobilisation Programme (Provided) (Mitigation) (CRS ID: 2018001263) (Year: 2021)	7,200,000	1,145,200	7,200,000	1,145,200	Disbursed
Global	IRENA SIDS Lighthouses Initiative 2.0 (Committed) (Mitigation) (CRS ID: 2019001202) (Year: 2021)	0	0	NA	NA	Committed
Global	IRENA SIDS Lighthouses Initiative 2.0 (Provided) (Mitigation) (CRS ID: 2019001202) (Year: 2021)	12,500,000	1,988,194	12,500,000	1,988,194	Disbursed
Global	Sahel Adaptive Social Protection Programme - SASSP (Verdensbanken) (Committed) (Adaptation) (CRS ID: 2021000286) (Year: 2021)	100,000,000	15,905,552	NA	NA	Committed
Global	Sahel Adaptive Social Protection Programme - SASSP (Verdensbanken) (Provided) (Adaptation) (CRS ID: 2021000286) (Year: 2021)	100,000,000	15,905,552	100,000,000	15,905,552	Disbursed
Global	Danish Support to the Global Green Growth Institute (GGGI) 2020-2022 (Committed) (Mitigation) (CRS ID: 2020000359) (Year: 2021)	50,000,000	7,952,776	NA	NA	Committed
Global	Danish Support to the Global Green Growth Institute (GGGI) 2020-2022 (Provided) (Mitigation) (CRS ID: 2020000359) (Year: 2021)	32,000,000	5,089,776	32,000,000	5,089,776	Disbursed
Lebanon	Syria and Neighbourhood (2021-2023) FAO (Committed) (Adaptation) (CRS ID: 2021000319) (Year: 2021)	15,000,000	2,385,833	NA	NA	Committed
Lebanon	Syria and Neighbourhood (2021-2023) FAO (Provided) (Adaptation) (CRS ID: 2021000319) (Year: 2021)	15,000,000	2,385,833	15,000,000	2,385,833	Disbursed
Rwanda	Climate-Smart Agriculture and Market Development for Enhancing Livelihoods of Refugees and their Host Communities in Rwanda (Committed) (A	0	0	NA	NA	Committed
Rwanda	Climate-Smart Agriculture and Market Development for Enhancing Livelihoods of Refugees and their Host Communities in Rwanda (Provided) (Ada	1,654,906	263,222	1,654,906	263,222	Disbursed
Rwanda	Danish support to the World Bank Rwanda - Energy Access and Quality Improvement Project (Committed) (Mitigation) (CRS ID: 2021000346) (Yea	25,000,000	3,976,388	NA	NA	Committed
Rwanda	Danish support to the World Bank Rwanda - Energy Access and Quality Improvement Project (Provided) (Mitigation) (CRS ID: 2021000346) (Year:	25,000,000	3,976,388	25,000,000	3,976,388	Disbursed
South Africa	UNDP Think Big Start Small project (Committed) (Adaptation) (CRS ID: 2021000066) (Year: 2021)	500,000	79,528	NA	NA	Committed
South Africa	UNDP Think Big Start Small project (Provided) (Adaptation) (CRS ID: 2021000066) (Year: 2021)	300,000	47,717	300,000	47,717	Disbursed
Uganda	Beyond the Grid Fund for Africa (BGFA) (Committed) (Mitigation) (CRS ID: 2020000323) (Year: 2021)	0	0	NA	NA	Committed
Uganda	Beyond the Grid Fund for Africa (BGFA) (Provided) (Mitigation) (CRS ID: 2020000323) (Year: 2021)	8,500,000	1,351,972	8,500,000	1,351,972	Disbursed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Committed) (Mitigation) (CRS ID: 2021000380) (Year: 2021)	50,000,000	7,952,776	NA	NA	Committed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Provided) (Mitigation) (CRS ID: 2021000380) (Year: 2021)	50,000,000	7,952,776	50,000,000	7,952,776	Disbursed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Committed) (Mitigation) (CRS ID: 2019001186) (Year: 2021)	0	0	NA	NA	Committed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Provided) (Mitigation) (CRS ID: 2019001186) (Year: 2021)	88,250	14,037	88,250	14,037	Disbursed
-Southern Africa	Identification of engagements for a new initiative on Climate change, conflict, displacement and irregular migration with a focus on the Sahel Regio	23,100	3,674	NA	NA	Committed
-Southern Africa	Identification of engagements for a new initiative on Climate change, conflict, displacement and irregular migration with a focus on the Sahel Regio	217,398	34,578	217,398	34,578	Disbursed
-Southern Africa	Finalisation of the Programme Document for CCCDIM in Sahel (Committed) (Adaptation) (CRS ID: 2021000228) (Year: 2021)	50,700	8,064	NA	NA	Committed
-Southern Africa	Finalisation of the Programme Document for CCCDIM in Sahel (Provided) (Adaptation) (CRS ID: 2021000228) (Year: 2021)	50,700	8,064	50,700	8,064	Disbursed
Asia	Formulation of a Danish Organisational Strategy for UNRWA (2023-2028) (Committed) (Cross-cutting) (CRS ID: 2021000284) (Year: 2021)	124,928	19,870	NA	NA	Committed
Asia	Formulation of a Danish Organisational Strategy for UNRWA (2023-2028) (Provided) (Cross-cutting) (CRS ID: 2021000284) (Year: 2021)	37,478	5,961	37,478	5,961	Disbursed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Committed) (Adaptation) (CRS ID: 2017001302) (Year: 2021)	7,649	1,217	NA	NA	Committed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Provided) (Adaptation) (CRS ID: 2017001302) (Year: 2021)	7,649	1,217	7,649	1,217	Disbursed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Committed) (Adaptation) (CRS ID: 2018001316) (Year: 2021)	0	0	NA	NA	Committed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Provided) (Adaptation) (CRS ID: 2018001316) (Year: 2021)	13,065,447	2,078,131	13,065,447	2,078,131	Disbursed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Committed) (Cross-cutting) (CRS ID: 2016001117ab) (Year: 2021)	0	0	NA	NA	Committed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Provided) (Cross-cutting) (CRS ID: 2016001117ab) (Year: 2021)	10,921	1,737	10,921	1,737	Disbursed
Bangladesh	DSIF - Bangladesh - Saidabad Water Project, Phase III (Committed) (Adaptation) (CRS ID: 2017001193) (Year: 2021)	500,000	79,528	NA	NA	Committed
Bangladesh	DSIF - Bangladesh - Saidabad Water Project, Phase III (Provided) (Adaptation) (CRS ID: 2017001193) (Year: 2021)	500,000	79,528	500,000	79,528	Disbursed
Bangladesh	Enhancing Safe Drinking Water Security and Climate Resilience through Rainwater Harvesting (Committed) (Adaptation) (CRS ID: 2021000350) (Y	29,000,000	4,612,610	NA	NA	Committed
Bangladesh	Enhancing Safe Drinking Water Security and Climate Resilience through Rainwater Harvesting (Provided) (Adaptation) (CRS ID: 2021000350) (Yea	0	0	0	0	Disbursed
Bolivia (Plurinational State of)	DSIF - Bolivia - Three Wind Farms Project (Committed) (Mitigation) (CRS ID: 2019001201ab) (Year: 2021)	0	0	NA	NA	Committed
Bolivia (Plurinational State of)	DSIF - Bolivia - Three Wind Farms Project (Provided) (Mitigation) (CRS ID: 2019001201ab) (Year: 2021)	0	0	0	0	Disbursed
Bolivia (Plurinational State of)	DSIF - Bolivia - Three Wind Farms Project (Committed) (Mitigation) (CRS ID: 2019001201aa) (Year: 2021)	800,000	127,244	NA	NA	Committed
Bolivia (Plurinational State of)	DSIF - Bolivia - Three Wind Farms Project (Provided) (Mitigation) (CRS ID: 2019001201aa) (Year: 2021)	800,000	127,244	800,000	127,244	Disbursed
Bolivia (Plurinational State of)	Bolivia Country Programme - part III: Promotion of Sustainable Natural Resource Management & Climate Change (Committed) (Cross-cutting) (CRS	0	0	NA	NA	Committed
Bolivia (Plurinational State of)	Bolivia Country Programme - part III: Promotion of Sustainable Natural Resource Management & Climate Change (Provided) (Cross-cutting) (CRS	16,761	2,666	16,761	2,666	Disbursed
Bolivia (Plurinational State of)	Bolivia Country Programme - part III: Promotion of Sustainable Natural Resource Management & Climate Change (Committed) (Cross-cutting) (CRS	32,118	5,109	NA	NA	Committed
Bolivia (Plurinational State of)	Bolivia Country Programme - part III: Promotion of Sustainable Natural Resource Management & Climate Change (Provided) (Cross-cutting) (CRS	0	0	0	0	Disbursed
Bolivia (Plurinational State of)	Bolivia Country Programme - part I: Promotion of Inclusive and Sustainable Economic Growth (Committed) (Cross-cutting) (CRS ID: 2013001378) (	0	0	NA	NA	Committed
Bolivia (Plurinational State of)	Bolivia Country Programme - part I: Promotion of Inclusive and Sustainable Economic Growth (Provided) (Cross-cutting) (CRS ID: 2013001378) (Ye	788	125	788	125	Disbursed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Committed) (Adaptation) (CRS ID: 2021000263aa) (Year: 2021)	16,000,000	2,544,888	NA	NA	Committed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Provided) (Adaptation) (CRS ID: 2021000263aa) (Year: 2021)	198,000	31,493	198,000	31,493	Disbursed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Committed) (Adaptation) (CRS ID: 2021000263ac) (Year: 2021)	164,000,000	26,085,105	NA	NA	Committed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Provided) (Adaptation) (CRS ID: 2021000263ac) (Year: 2021)	31,002,549	4,931,126	31,002,549	4,931,126	Disbursed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Committed) (Adaptation) (CRS ID: 2021000263ab) (Year: 2021)	20,000,000	3,181,110	NA	NA	Committed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Provided) (Adaptation) (CRS ID: 2021000263ab) (Year: 2021)	12,050,950	1,916,770	12,050,950	1,916,770	Disbursed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Committed) (Adaptation) (CRS ID: 2021000	500,000	79,528	NA	NA	Committed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Provided) (Adaptation) (CRS ID: 2021000	48,875	7,774	48,875	7,774	Disbursed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Committed) (Adaptation) (CRS ID: 2021000	15,000,000	2,385,833	NA	NA	Committed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Provided) (Adaptation) (CRS ID: 2021000	15,000,000	2,385,833	15,000,000	2,385,833	Disbursed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Committed) (Adaptation) (CRS ID: 2021000	12,500,000	1,988,194	NA	NA	Committed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Provided) (Adaptation) (CRS ID: 2021000	12,500,000	1,988,194	12,500,000	1,988,194	Disbursed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Committed) (Adaptation) (CRS ID: 2021000	22,000,000	3,499,221	NA	NA	Committed
Burkina Faso	Burkina - Agriculture 2021-2025 - Promote local community resilience and national economic resilience (Provided) (Adaptation) (CRS ID: 2021000	10,736,695	1,707,730	10,736,695	1,707,730	Disbursed
Burkina Faso	Eau et Assainissement 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001306) (Year: 2021)	0	0	NA	NA	Committed
Burkina Faso	Eau et Assainissement 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001306) (Year: 2021)	6,542,027	1,040,545	6,542,027	1,040,545	Disbursed
Burkina Faso	DMDP 2017 – Innovating for Impact in Sesame in Burkina Faso (Committed) (Adaptation) (CRS ID: 2017001259) (Year: 2021)	0	0	NA	NA	Committed
Burkina Faso	DMDP 2017 – Innovating for Impact in Sesame in Burkina Faso (Provided) (Adaptation) (CRS ID: 2017001259) (Year: 2021)	1,022,031	162,560	1,022,031	162,560	Disbursed
Burkina Faso	Burkina - Adaptability reserve, M&E 2021-2025 (Committed) (Adaptation) (CRS ID: 2021000261ab) (Year: 2021)	20,000,000	3,181,110	NA	NA	Committed
Burkina Faso	Burkina - Adaptability reserve, M&E 2021-2025 (Provided) (Adaptation) (CRS ID: 2021000261ab) (Year: 2021)	0	0	0	0	Disbursed
China	Sino-Danish Offshore Wind Cooperation ('Quality Offshore Wind'), Phase 2 (Committed) (Mitigation) (CRS ID: 2019001016) (Year: 2021)	0	0	NA	NA	Committed
China	Sino-Danish Offshore Wind Cooperation ('Quality Offshore Wind'), Phase 2 (Provided) (Mitigation) (CRS ID: 2019001016) (Year: 2021)	3,218,790	511,966	3,218,790	511,966	Disbursed
China	SSC in Sustainable Urban Development between Copenhagen and Beijing (Committed) (Adaptation) (CRS ID: 2018001149) (Year: 2021)	874,091	139,029	NA	NA	Committed
China	SSC in Sustainable Urban Development between Copenhagen and Beijing (Provided) (Adaptation) (CRS ID: 2018001149) (Year: 2021)	874,091	139,029	874,091	139,029	Disbursed
China	SSC in the Maritime Sector China fase 2 (Committed) (Cross-cutting) (CRS ID: 2020000069) (Year: 2021)	349,740	55,628	NA	NA	Committed
China	SSC in the Maritime Sector China fase 2 (Provided) (Cross-cutting) (CRS ID: 2020000069) (Year: 2021)	349,740	55,628	349,740	55,628	Disbursed
Egypt	SSC in Energy DK and Egypt, phase I (Committed) (Mitigation) (CRS ID: 2020000257) (Year: 2021)	4,209,041	669,471	NA	NA	Committed
Egypt	SSC in Energy DK and Egypt, phase I (Provided) (Mitigation) (CRS ID: 2020000257) (Year: 2021)	4,209,041	669,471	4,209,041	669,471	Disbursed
Ethiopia	DSIF - Ethiopia - Assela Wind Farm Project (Committed) (Mitigation) (CRS ID: 2018001099) (Year: 2021)	149,000,000	23,699,272	NA	NA	Committed
Ethiopia	DSIF - Ethiopia - Assela Wind Farm Project (Provided) (Mitigation) (CRS ID: 2018001099) (Year: 2021)	149,000,000	23,699,272	149,000,000	23,699,272	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 3 Climate Change (Committed) (Cross-cutting) (CRS ID: 2018001210ab) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 3 Climate Change (Provided) (Cross-cutting) (CRS ID: 2018001210ab) (Year: 2021)	7,163,744	1,139,433	7,163,744	1,139,433	Disbursed
Ethiopia	Community Led Adaptation for Climate Resilience and Green Income Opportunities in Ethiopia (Committed) (Adaptation) (CRS ID: 2020000377) (Ye	0	0	NA	NA	Committed
Ethiopia	Community Led Adaptation for Climate Resilience and Green Income Opportunities in Ethiopia (Provided) (Adaptation) (CRS ID: 2020000377) (Yea	3,798,000	604,093	3,798,000	604,093	Disbursed
Ethiopia	SSC in the Energy sector between DK and Ethiopia phase I (Committed) (Mitigation) (CRS ID: 2020000073) (Year: 2021)	2,709,621	430,980	NA	NA	Committed
Ethiopia	SSC in the Energy sector between DK and Ethiopia phase I (Provided) (Mitigation) (CRS ID: 2020000073) (Year: 2021)	2,709,621	430,980	2,709,621	430,980	Disbursed
Ethiopia	Strategic Sector Cooperation Danish-Ethiopian Water Partnership (Committed) (Adaptation) (CRS ID: 2021000101) (Year: 2021)	846,238	134,599	NA	NA	Committed
Ethiopia	Strategic Sector Cooperation Danish-Ethiopian Water Partnership (Provided) (Adaptation) (CRS ID: 2021000101) (Year: 2021)	846,238	134,599	846,238	134,599	Disbursed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Committed) (Mitigation) (CRS ID: 2016001197aa) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Provided) (Mitigation) (CRS ID: 2016001197aa) (Year: 2021)	281,105	44,711	281,105	44,711	Disbursed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Committed) (Mitigation) (CRS ID: 2016001197ab) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Provided) (Mitigation) (CRS ID: 2016001197ab) (Year: 2021)	534,912	85,081	534,912	85,081	Disbursed

Table E2(1): Bilateral Support in 2021 (cont.)

(ROW 151-300 OF 504)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency2	USD3	Status
Ethiopia	blueMoon - Agri-Tech Incubation and Innovation Lab 2018-2021 (Committed) (Adaptation) (CRS ID: 2018001129) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	blueMoon - Agri-Tech Incubation and Innovation Lab 2018-2021 (Provided) (Adaptation) (CRS ID: 2018001129) (Year: 2021)	767,649	122,099	767,649	122,099	Disbursed
Ethiopia	DMDP 2016 – GAIN Access to Better Dairy (Committed) (Cross-cutting) (CRS ID: 2016001216) (Year: 2021)	0	0	NA	NA	Committed
Ethiopia	DMDP 2016 – GAIN Access to Better Dairy (Provided) (Cross-cutting) (CRS ID: 2016001216) (Year: 2021)	225,610	35,885	225,610	35,885	Disbursed
Ethiopia	Appraisal of Enhanced Danish-Ethiopian Energy Partnership (DEEP) (Committed) (Mitigation) (CRS ID: 2021000020) (Year: 2021)	159,600	25,385	NA	NA	Committed
Ethiopia	Appraisal of Enhanced Danish-Ethiopian Energy Partnership (DEEP) (Provided) (Mitigation) (CRS ID: 2021000020) (Year: 2021)	159,600	25,385	159,600	25,385	Disbursed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Committed) (Adaptation) (CRS ID: 2018001211aa) (Year: 2021)	20,750,000	3,300,402	NA	NA	Committed
Ethiopia	Ethiopia Country Programme 2018-2022. TP 2 Resilience (Provided) (Adaptation) (CRS ID: 2018001211aa) (Year: 2021)	0	0	0	0	Disbursed
Georgia	Support to Energy Efficiency and Sustainable Energy in Georgia (2015-2022) (Committed) (Mitigation) (CRS ID: 2015001245) (Year: 2021)	0	0	NA	NA	Committed
Georgia	Support to Energy Efficiency and Sustainable Energy in Georgia (2015-2022) (Provided) (Mitigation) (CRS ID: 2015001245) (Year: 2021)	1,572,852	250,171	1,572,852	250,171	Disbursed
Georgia	Georgia Energy Programme Phase II (2020-2023) (Committed) (Mitigation) (CRS ID: 2020000181) (Year: 2021)	0	0	NA	NA	Committed
Georgia	Georgia Energy Programme Phase II (2020-2023) (Provided) (Mitigation) (CRS ID: 2020000181) (Year: 2021)	1,438,443	228,792	1,438,443	228,792	Disbursed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Committed) (Mitigation) (CRS ID: 2019001205ab) (Year: 2021)	8,600,000	1,367,877	NA	NA	Committed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Provided) (Mitigation) (CRS ID: 2019001205ab) (Year: 2021)	12,088,310	1,922,712	12,088,310	1,922,712	Disbursed
India	SSC India DK, Wind Power - Phase I (Committed) (Mitigation) (CRS ID: 2018001224) (Year: 2021)	3,932,432	625,475	NA	NA	Committed
India	SSC India DK, Wind Power - Phase I (Provided) (Mitigation) (CRS ID: 2018001224) (Year: 2021)	3,932,432	625,475	3,932,432	625,475	Disbursed
India	Sustainable Urban Water management/Strategic Sector Cooperation project in Udaipur, India (Committed) (Adaptation) (CRS ID: 2018001115) (Ye	1,166,259	185,500	NA	NA	Committed
India	Sustainable Urban Water management/Strategic Sector Cooperation project in Udaipur, India (Provided) (Adaptation) (CRS ID: 2018001115) (Year	1,166,259	185,500	1,166,259	185,500	Disbursed
India	Capacity Building on Decarbonisation, Pollution Control and Promoting Circularity in India (Committed) (Mitigation) (CRS ID: 2021000358) (Year: 2(	250,000	39,764	NA	NA	Committed
India	Capacity Building on Decarbonisation, Pollution Control and Promoting Circularity in India (Provided) (Mitigation) (CRS ID: 2021000358) (Year: 202	150,000	23,858	150,000	23,858	Disbursed
India	Urban Living Lab India (Committed) (Cross-cutting) (CRS ID: 2019001236) (Year: 2021)	0	0	NA	NA	Committed
India	Urban Living Lab India (Provided) (Cross-cutting) (CRS ID: 2019001236) (Year: 2021)	72,132	11,473	72,132	11,473	Disbursed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Committed) (Mitigation) (CRS ID: 2020000313ab) (Year: 2021)	13,000,000	2,067,722	NA	NA	Committed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Provided) (Mitigation) (CRS ID: 2020000313ab) (Year: 2021)	1,065,996	169,553	1,065,996	169,553	Disbursed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Committed) (Mitigation) (CRS ID: 2020000313ac) (Year: 2021)	8,500,000	1,351,972	NA	NA	Committed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Provided) (Mitigation) (CRS ID: 2020000313ac) (Year: 2021)	7,100,000	1,129,294	7,100,000	1,129,294	Disbursed
Indonesia	SSC Energy Sector, Indonesia - Phase II (Committed) (Mitigation) (CRS ID: 2019001018) (Year: 2021)	3,832,756	609,621	NA	NA	Committed
Indonesia	SSC Energy Sector, Indonesia - Phase II (Provided) (Mitigation) (CRS ID: 2019001018) (Year: 2021)	3,832,756	609,621	3,832,756	609,621	Disbursed
Indonesia	SSC in Circular Economy and Solid waste management between Denmark and Indonesia (Committed) (Mitigation) (CRS ID: 2018001156) (Year: 2(	794,647	126,393	NA	NA	Committed
Indonesia	SSC in Circular Economy and Solid waste management between Denmark and Indonesia (Provided) (Mitigation) (CRS ID: 2018001156) (Year: 202	794,647	126,393	794,647	126,393	Disbursed
Indonesia	Strategic Sector Cooperation in Agriculture and Food Safety Between Denmark and Indonesia, Phase I (Committed) (Cross-cutting) (CRS ID: 2021(	445,771	70,902	NA	NA	Committed
Indonesia	Strategic Sector Cooperation in Agriculture and Food Safety Between Denmark and Indonesia, Phase I (Provided) (Cross-cutting) (CRS ID: 202100	445,771	70,902	445,771	70,902	Disbursed
Indonesia	Strategic Sector Cooperation on Sustainable Island Initiative (SII) between Denmark and Indonesia (Environment) (Committed) (Mitigation) (CRS ID	433,654	68,975	NA	NA	Committed
Indonesia	Strategic Sector Cooperation on Sustainable Island Initiative (SII) between Denmark and Indonesia (Environment) (Provided) (Mitigation) (CRS ID: 2	433,654	68,975	433,654	68,975	Disbursed
Indonesia	DBP Tansoputra Asia and Smoke Solution (Committed) (Mitigation) (CRS ID: 2013001134) (Year: 2021)	0	0	NA	NA	Committed
Indonesia	DBP Tansoputra Asia and Smoke Solution (Provided) (Mitigation) (CRS ID: 2013001134) (Year: 2021)	158,854	25,267	158,854	25,267	Disbursed
Indonesia	SSC on Maritime development Between Denmark and Indonesia, Inception phase (Committed) (Cross-cutting) (CRS ID: 2021000194) (Year: 2021)	154,055	24,503	NA	NA	Committed
Indonesia	SSC on Maritime development Between Denmark and Indonesia, Inception phase (Provided) (Cross-cutting) (CRS ID: 2021000194) (Year: 2021)	154,055	24,503	154,055	24,503	Disbursed
Indonesia	DBP Kaltimex Lestari Makmur and Syntes Engineering (Committed) (Mitigation) (CRS ID: 2014001199) (Year: 2021)	0	0	NA	NA	Committed
Indonesia	DBP Kaltimex Lestari Makmur and Syntes Engineering (Provided) (Mitigation) (CRS ID: 2014001199) (Year: 2021)	86,054	13,687	86,054	13,687	Disbursed
Global	Danish Energy Agency Energy Partnership Programme (DEPP) 2020-2025 (Committed) (Mitigation) (CRS ID: 2020000302ab) (Year: 2021)	156,226,667	24,848,713	NA	NA	Committed
Global	Danish Energy Agency Energy Partnership Programme (DEPP) 2020-2025 (Provided) (Mitigation) (CRS ID: 2020000302ab) (Year: 2021)	41,575,499	6,612,812	41,575,499	6,612,812	Disbursed
Global	Nationally Appropriate Mitigation Actions (NAMA) Facility (Committed) (Mitigation) (CRS ID: 2014001384) (Year: 2021)	0	0	NA	NA	Committed
Global	Nationally Appropriate Mitigation Actions (NAMA) Facility (Provided) (Mitigation) (CRS ID: 2014001384) (Year: 2021)	40,207,050	6,395,153	40,207,050	6,395,153	Disbursed
Global	P4G (Committed) (Cross-cutting) (CRS ID: 2017001335aa) (Year: 2021)	500,000	79,528	NA	NA	Committed
Global	P4G (Provided) (Cross-cutting) (CRS ID: 2017001335aa) (Year: 2021)	288,453	45,880	288,453	45,880	Disbursed
Global	P4G (Committed) (Cross-cutting) (CRS ID: 2017001335ac) (Year: 2021)	25,100,000	3,992,293	NA	NA	Committed
Global	P4G (Provided) (Cross-cutting) (CRS ID: 2017001335ac) (Year: 2021)	24,297,487	3,864,649	24,297,487	3,864,649	Disbursed
Global	P4G (Committed) (Cross-cutting) (CRS ID: 2017001335ab) (Year: 2021)	1,900,000	302,205	NA	NA	Committed
Global	P4G (Provided) (Cross-cutting) (CRS ID: 2017001335ab) (Year: 2021)	1,185,681	188,589	1,185,681	188,589	Disbursed
Global	Support to C40 Business Plan 2020-2024 (Committed) (Cross-cutting) (CRS ID: 2020000172) (Year: 2021)	0	0	NA	NA	Committed
Global	Support to C40 Business Plan 2020-2024 (Provided) (Cross-cutting) (CRS ID: 2020000172) (Year: 2021)	13,756,000	2,187,968	13,756,000	2,187,968	Disbursed
Global	DSIF - Project Development Facility (Committed) (Mitigation) (CRS ID: 2017001247) (Year: 2021)	10,000,000	1,590,555	NA	NA	Committed
Global	DSIF - Project Development Facility (Provided) (Mitigation) (CRS ID: 2017001247) (Year: 2021)	10,000,000	1,590,555	10,000,000	1,590,555	Disbursed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Committed) (Adaptation) (CRS ID: 2020000315ab) (Year: 202	1,000,000	159,056	NA	NA	Committed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Provided) (Adaptation) (CRS ID: 2020000315ab) (Year: 2021)	173,105	27,533	173,105	27,533	Disbursed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Committed) (Adaptation) (CRS ID: 2020000315ac) (Year: 202	18,750,000	2,982,291	NA	NA	Committed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Provided) (Adaptation) (CRS ID: 2020000315ac) (Year: 2021)	9,427,954	1,499,568	9,427,954	1,499,568	Disbursed
Global	World Resources Institute - Core Funding 2018-2022 - 2018 (Committed) (Cross-cutting) (CRS ID: 2017001336) (Year: 2021)	7,500,000	1,192,916	NA	NA	Committed
Global	World Resources Institute - Core Funding 2018-2022 - 2018 (Provided) (Cross-cutting) (CRS ID: 2017001336) (Year: 2021)	7,500,000	1,192,916	7,500,000	1,192,916	Disbursed
Global	IDH - Dutch sustainable trade initiative (Committed) (Cross-cutting) (CRS ID: 2021152792) (Year: 2021)	0	0	NA	NA	Committed
Global	IDH - Dutch sustainable trade initiative (Provided) (Cross-cutting) (CRS ID: 2021152792) (Year: 2021)	7,500,000	1,192,916	7,500,000	1,192,916	Disbursed
Global	FFU Projects Windows 1 and 2 2017 (Committed) (Cross-cutting) (CRS ID: 2017001318) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Projects Windows 1 and 2 2017 (Provided) (Cross-cutting) (CRS ID: 2017001318) (Year: 2021)	4,685,578	745,267	4,685,578	745,267	Disbursed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Committed) (Mitigation) (CRS ID: 2019001234	0	0	NA	NA	Committed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Provided) (Mitigation) (CRS ID: 2019001234	3,556,567	565,692	3,556,567	565,692	Disbursed
Global	Improving SDGs in developing countries through corporate benchmarking (Committed) (Cross-cutting) (CRS ID: 2019001157) (Year: 2021)	0	0	NA	NA	Committed
Global	Improving SDGs in developing countries through corporate benchmarking (Provided) (Cross-cutting) (CRS ID: 2019001157) (Year: 2021)	3,000,000	477,167	3,000,000	477,167	Disbursed
Global	The Danish Energy Transition Initiative (DETI) (Committed) (Mitigation) (CRS ID: 2021000024) (Year: 2021)	15,000,000	2,385,833	NA	NA	Committed
Global	The Danish Energy Transition Initiative (DETI) (Provided) (Mitigation) (CRS ID: 2021000024) (Year: 2021)	3,000,000	477,167	3,000,000	477,167	Disbursed
Global	Evaluation of climate change mitigation funding in developing countries (Committed) (Mitigation) (CRS ID: 2020000154) (Year: 2021)	0	0	NA	NA	Committed
Global	Evaluation of climate change mitigation funding in developing countries (Provided) (Mitigation) (CRS ID: 2020000154) (Year: 2021)	2,604,259	414,222	2,604,259	414,222	Disbursed
Global	Danish Support to SEforALL 2021–2023 (Committed) (Mitigation) (CRS ID: 2021000361) (Year: 2021)	9,500,000	1,511,027	NA	NA	Committed
Global	Danish Support to SEforALL 2021–2023 (Provided) (Mitigation) (CRS ID: 2021000361) (Year: 2021)	2,600,000	413,544	2,600,000	413,544	Disbursed
Global	Accelerating Youth Engagement on the Energy Transition in ODA recipient countries (Committed) (Mitigation) (CRS ID: 2020000360) (Year: 2021)	0	0	NA	NA	Committed
Global	Accelerating Youth Engagement on the Energy Transition in ODA recipient countries (Provided) (Mitigation) (CRS ID: 2020000360) (Year: 2021)	2,500,000	397,639	2,500,000	397,639	Disbursed
Global	Evaluation of the Danish Support for Climate Change Adaption in Developing Countries (Committed) (Adaptation) (CRS ID: 2019001106) (Year: 202	0	0	NA	NA	Committed
Global	Evaluation of the Danish Support for Climate Change Adaption in Developing Countries (Provided) (Adaptation) (CRS ID: 2019001106) (Year: 2021	1,158,219	184,221	1,158,219	184,221	Disbursed
Global	Peterson Institute for International Economics Partnership 2020-2022 (Committed) (Mitigation) (CRS ID: 2020000439) (Year: 2021)	0	0	NA	NA	Committed
Global	Peterson Institute for International Economics Partnership 2020-2022 (Provided) (Mitigation) (CRS ID: 2020000439) (Year: 2021)	1,000,000	159,056	1,000,000	159,056	Disbursed
Global	Partnerskabsaftale mellem DIIS og EVAL omkring faglige studier og forskning ifm evaluering af den danske udviklingsbistand (Committed) (Adapta	0	0	NA	NA	Committed
Global	Partnerskabsaftale mellem DIIS og EVAL omkring faglige studier og forskning ifm evaluering af den danske udviklingsbistand (Provided) (Adaptatic	850,000	135,197	850,000	135,197	Disbursed
Global	Earmarked contribution to ASEF 2019-2022 (Committed) (Cross-cutting) (CRS ID: 2019001266) (Year: 2021)	0	0	NA	NA	Committed
Global	Earmarked contribution to ASEF 2019-2022 (Provided) (Cross-cutting) (CRS ID: 2019001266) (Year: 2021)	650,000	103,386	650,000	103,386	Disbursed
Global	CSIS Partnership 2019-2022 (Committed) (Cross-cutting) (CRS ID: 2019001170) (Year: 2021)	0	0	NA	NA	Committed
Global	CSIS Partnership 2019-2022 (Provided) (Cross-cutting) (CRS ID: 2019001170) (Year: 2021)	500,000	79,528	500,000	79,528	Disbursed
Global	Sphere Association, 2019-2021 (Committed) (Adaptation) (CRS ID: 2019001171) (Year: 2021)	0	0	NA	NA	Committed
Global	Sphere Association, 2019-2021 (Provided) (Adaptation) (CRS ID: 2019001171) (Year: 2021)	250,000	39,764	250,000	39,764	Disbursed
Global	Brookings Partnership 2019-2021 (Committed) (Cross-cutting) (CRS ID: 2019001268) (Year: 2021)	0	0	NA	NA	Committed
Global	Brookings Partnership 2019-2021 (Provided) (Cross-cutting) (CRS ID: 2019001268) (Year: 2021)	250,000	39,764	250,000	39,764	Disbursed
Global	Two sessions on developing countries at the Climate Investment Summit 2021 (Committed) (Mitigation) (CRS ID: 2021000205aa) (Year: 2021)	248,900	39,589	NA	NA	Committed
Global	Two sessions on developing countries at the Climate Investment Summit 2021 (Provided) (Mitigation) (CRS ID: 2021000205aa) (Year: 2021)	245,700	39,080	245,700	39,080	Disbursed
Global	Two sessions on developing countries at the Climate Investment Summit 2021 (Committed) (Mitigation) (CRS ID: 2021000205ab) (Year: 2021)	1,100	175	NA	NA	Committed
Global	Two sessions on developing countries at the Climate Investment Summit 2021 (Provided) (Mitigation) (CRS ID: 2021000205ab) (Year: 2021)	0	0	0	0	Disbursed
Global	Screening and reviewing of funding proposals in the Green Climate Fund (Committed) (Cross-cutting) (CRS ID: 2020000273) (Year: 2021)	0	0	NA	NA	Committed
Global	Screening and reviewing of funding proposals in the Green Climate Fund (Provided) (Cross-cutting) (CRS ID: 2020000273) (Year: 2021)	240,000	38,173	240,000	38,173	Disbursed
Global	Program formulation of Danish support to the African Water Facility (Committed) (Adaptation) (CRS ID: 2020000373) (Year: 2021)	0	0	NA	NA	Committed
Global	Program formulation of Danish support to the African Water Facility (Provided) (Adaptation) (CRS ID: 2020000373) (Year: 2021)	179,350	28,527	179,350	28,527	Disbursed
Global	Communication of Danish Support for Climate Change Adaptation in Developing Countries (Committed) (Adaptation) (CRS ID: 2020000282) (Year:	0	0	NA	NA	Committed
Global	Communication of Danish Support for Climate Change Adaptation in Developing Countries (Provided) (Adaptation) (CRS ID: 2020000282) (Year: 2(	174,795	27,802	174,795	27,802	Disbursed
Global	Appraisal of the NDC-P Programme (Committed) (Cross-cutting) (CRS ID: 2020000208) (Year: 2021)	0	0	NA	NA	Committed
Global	Appraisal of the NDC-P Programme (Provided) (Cross-cutting) (CRS ID: 2020000208) (Year: 2021)	171,100	27,214	171,100	27,214	Disbursed
Global	Review Se4All 2021 (Committed) (Adaptation) (CRS ID: 2021000079) (Year: 2021)	155,000	24,654	NA	NA	Committed
Global	Review Se4All 2021 (Provided) (Adaptation) (CRS ID: 2021000079) (Year: 2021)	154,000	24,495	154,000	24,495	Disbursed
Global	Desk Midterm review of Organisation Strategies for Denmark's engagement with UNDP, UNFPA, UNICEF and UN-Women 2018-2022 (Committed)	124,925	19,870	NA	NA	Committed
Global	Desk Midterm review of Organisation Strategies for Denmark's engagement with UNDP, UNFPA, UNICEF and UN-Women 2018-2022 (Provided) (A	124,925	19,870	124,925	19,870	Disbursed
Global	Appraisal of Additional Funds for DEPP III and INDODEPP (Committed) (Cross-cutting) (CRS ID: 2021000217) (Year: 2021)	80,000	12,724	NA	NA	Committed
Global	Appraisal of Additional Funds for DEPP III and INDODEPP (Provided) (Cross-cutting) (CRS ID: 2021000217) (Year: 2021)	80,000	12,724	80,000	12,724	Disbursed
Global	Process support and formulation of a revised Strategic Sector Cooperation (Committed) (Cross-cutting) (CRS ID: 2020000239) (Year: 2021)	0	0	NA	NA	Committed
Global	Process support and formulation of a revised Strategic Sector Cooperation (Provided) (Cross-cutting) (CRS ID: 2020000239) (Year: 2021)	65,400	10,402	65,400	10,402	Disbursed
Global	Consultancy - Communication of the Strategic Sector Cooperation (Committed) (Cross-cutting) (CRS ID: 2021000179) (Year: 2021)	0	0	NA	NA	Committed
Global	Consultancy - Communication of the Strategic Sector Cooperation (Provided) (Cross-cutting) (CRS ID: 2021000179) (Year: 2021)	46,250	7,356	46,250	7,356	Disbursed
Global	Regarding Assessment and scoring of proposals under the NGO Call for Proposal modality (Committed) (Adaptation) (CRS ID: 2020000387) (Year:	0	0	NA	NA	Committed
Global	Regarding Assessment and scoring of proposals under the NGO Call for Proposal modality (Provided) (Adaptation) (CRS ID: 2020000387) (Year: 2	31,000	4,931	31,000	4,931	Disbursed
Global	Seminar om Loss and Damage relateret til klimaforandringer i skrøbelige lande (Committed) (Adaptation) (CRS ID: 2021000094) (Year: 2021)	21,000	3,340	NA	NA	Committed
Global	Seminar om Loss and Damage relateret til klimaforandringer i skrøbelige lande (Provided) (Adaptation) (CRS ID: 2021000094) (Year: 2021)	21,000	3,340	21,000	3,340	Disbursed
Global	3GF2017 (Committed) (Cross-cutting) (CRS ID: 2017001055) (Year: 2021)	0	0	NA	NA	Committed
Global	3GF2017 (Provided) (Cross-cutting) (CRS ID: 2017001055) (Year: 2021)	0	0	0	0	Disbursed
Global	Research mobilities grants 2019 (Committed) (Cross-cutting) (CRS ID: 2019001095) (Year: 2021)	0	0	NA	NA	Committed
Global	Research mobilities grants 2019 (Provided) (Cross-cutting) (CRS ID: 2019001095) (Year: 2021)	0	0	0	0	Disbursed
Global	Support for climate and energy actitities in developing countries UNEP and UNEP-Risø (Committed) (Cross-cutting) (CRS ID: 2014001167) (Year: 2	0	0	NA	NA	Committed
Global	Support for climate and energy actitities in developing countries UNEP and UNEP-Risø (Provided) (Cross-cutting) (CRS ID: 2014001167) (Year: 20	0	0	0	0	Disbursed
Global	Universities Denmark - platforms , Building Stronger Universities (Committed) (Cross-cutting) (CRS ID: 2012001404) (Year: 2021)	0	0	NA	NA	Committed
Global	Universities Denmark - platforms , Building Stronger Universities (Provided) (Cross-cutting) (CRS ID: 2012001404) (Year: 2021)	0	0	0	0	Disbursed
Global	Redesigning Recycling for Development (Committed) (Cross-cutting) (CRS ID: 2020000279) (Year: 2021)	30,900	4,915	NA	NA	Committed
Global	Redesigning Recycling for Development (Provided) (Cross-cutting) (CRS ID: 2020000279) (Year: 2021)	0	0	0	0	Disbursed
Global	DMDP - Management Support Consultant NCG (Committed) (Cross-cutting) (CRS ID: 2021000305) (Year: 2021)	5,626,750	894,966	NA	NA	Committed
Global	DMDP - Management Support Consultant NCG (Provided) (Cross-cutting) (CRS ID: 2021000305) (Year: 2021)	0	0	0	0	Disbursed
Kenya	Bio-digester development (Rijksdienst voor Ondernemend Nederland) (Committed) (Mitigation) (CRS ID: 2021000144) (Year: 2021)	50,000,000	7,952,776	NA	NA	Committed
Kenya	Bio-digester development (Rijksdienst voor Ondernemend Nederland) (Provided) (Mitigation) (CRS ID: 2021000144) (Year: 2021)	10,000,000	1,590,555	10,000,000	1,590,555	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217ab) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217ab) (Year: 2021)	1,123,271	178,663	1,123,271	178,663	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217ae) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217ae) (Year: 2021)	2,629,649	418,260	2,629,649	418,260	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217af) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217af) (Year: 2021)	220,072	35,004	220,072	35,004	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217ag) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217ag) (Year: 2021)	329,144	52,352	329,144	52,352	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217aa) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217aa) (Year: 2021)	453,067	72,063	453,067	72,063	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217ad) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217ad) (Year: 2021)	95,286	15,156	95,286	15,156	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001218) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001218) (Year: 2021)	264,184	42,020	264,184	42,020	Disbursed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Committed) (Adaptation) (CRS ID: 2020000384) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Provided) (Adaptation) (CRS ID: 2020000384) (Year: 2021)	4,600,364	731,713	4,600,364	731,713	Disbursed
Kenya	Feasibility study in preparation for a GCF-project (Committed) (Mitigation) (CRS ID: 2021000269) (Year: 2021)	1,540,000	244,945	NA	NA	Committed
Kenya	Feasibility study in preparation for a GCF-project (Provided) (Mitigation) (CRS ID: 2021000269) (Year: 2021)	1,540,000	244,945	1,540,000	244,945	Disbursed
Kenya	DMDP 2019 -Agri-tech Solutions for Climate Resilience and Financial Inclusion of Smallholders in Kenya (Committed) (Adaptation) (CRS ID: 20190	2,500,000	397,639	NA	NA	Committed
Kenya	DMDP 2019 -Agri-tech Solutions for Climate Resilience and Financial Inclusion of Smallholders in Kenya (Provided) (Adaptation) (CRS ID: 2019001	1,150,000	182,914	1,150,000	182,914	Disbursed

Table E2(1): Bilateral Support in 2021 (cont.)

(ROW 301-450 OF 504)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency2	USD3	Status
Kenya	DMDP 2019 – Solar cooling for reduced food loss, job and income opportunities among smallholders in Kenya (Committed) (Mitigation) (CRS ID: 2	0	0	NA	NA	Committed
Kenya	DMDP 2019 – Solar cooling for reduced food loss, job and income opportunities among smallholders in Kenya (Provided) (Mitigation) (CRS ID: 201	827,563	131,628	827,563	131,628	Disbursed
Kenya	DMDP 2020 – Fair Recycling: an inclusive and formalised plastic recycling ecosystem in Kenya (Committed) (Mitigation) (CRS ID: 2020000464) (Ye	0	0	NA	NA	Committed
Kenya	DMDP 2020 – Fair Recycling: an inclusive and formalised plastic recycling ecosystem in Kenya (Provided) (Mitigation) (CRS ID: 2020000464) (Year	740,781	117,825	740,781	117,825	Disbursed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Committed) (Adaptation) (CRS ID: 2017001258a	0	0	NA	NA	Committed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Provided) (Adaptation) (CRS ID: 2017001258aa	339,194	53,951	339,194	53,951	Disbursed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Committed) (Adaptation) (CRS ID: 2017001258a	0	0	NA	NA	Committed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Provided) (Adaptation) (CRS ID: 2017001258ab	306,643	48,773	306,643	48,773	Disbursed
Kenya	Kenya - SSC on Green Growth in the manufacturing Sector (Committed) (Mitigation) (CRS ID: 2016001141) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Kenya - SSC on Green Growth in the manufacturing Sector (Provided) (Mitigation) (CRS ID: 2016001141) (Year: 2021)	175,063	27,845	175,063	27,845	Disbursed
Kenya	Real-Time Evaluation, of the Danida Country Programme for Kenya (Committed) (Cross-cutting) (CRS ID: 2014001385) (Year: 2021)	0	0	NA	NA	Committed
Kenya	Real-Time Evaluation, of the Danida Country Programme for Kenya (Provided) (Cross-cutting) (CRS ID: 2014001385) (Year: 2021)	111,134	17,676	111,134	17,676	Disbursed
Kenya	DMDP 2016 – Enhancing crop yield and profitability in Kenya through biological plant protection (Committed) (Adaptation) (CRS ID: 2016001214) (	0	0	NA	NA	Committed
Kenya	DMDP 2016 – Enhancing crop yield and profitability in Kenya through biological plant protection (Provided) (Adaptation) (CRS ID: 2016001214) (Ye	83,980	13,357	83,980	13,357	Disbursed
Mali	Mali Sustainable Urban Water Programme (Committed) (Cross-cutting) (CRS ID: 2021000320) (Year: 2021)	23,000,000	3,658,277	NA	NA	Committed
Mali	Mali Sustainable Urban Water Programme (Provided) (Cross-cutting) (CRS ID: 2021000320) (Year: 2021)	12,500,000	1,988,194	12,500,000	1,988,194	Disbursed
Mali	Mali Sustainable Urban Water Programme (Committed) (Adaptation) (CRS ID: 2021000323ab) (Year: 2021)	60,000,000	9,543,331	NA	NA	Committed
Mali	Mali Sustainable Urban Water Programme (Provided) (Adaptation) (CRS ID: 2021000323ab) (Year: 2021)	30,000,000	4,771,665	30,000,000	4,771,665	Disbursed
Mali	Mali Sustainable Urban Water Programme (Committed) (Adaptation) (CRS ID: 2021000323aa) (Year: 2021)	14,000,000	2,226,777	NA	NA	Committed
Mali	Mali Sustainable Urban Water Programme (Provided) (Adaptation) (CRS ID: 2021000323aa) (Year: 2021)	0	0	0	0	Disbursed
Mali	Climate Change Adaptation and Stability in Fragile Border Areas of Mali - PATRIP Foundation (Committed) (Adaptation) (CRS ID: 2020000471) (Ye	0	0	NA	NA	Committed
Mali	Climate Change Adaptation and Stability in Fragile Border Areas of Mali - PATRIP Foundation (Provided) (Adaptation) (CRS ID: 2020000471) (Year	16,500,000	2,624,416	16,500,000	2,624,416	Disbursed
Mali	Green Diplomacy and Climate wish to tender for Appraisal of Urban Water Supply Programme 2022-2026 - Mali (Committed) (Adaptation) (CRS ID:	102,785	16,349	NA	NA	Committed
Mali	Green Diplomacy and Climate wish to tender for Appraisal of Urban Water Supply Programme 2022-2026 - Mali (Provided) (Adaptation) (CRS ID: 2	30,836	4,905	30,836	4,905	Disbursed
Mozambique	Environmental Sector Programme Support Phase II (Committed) (Adaptation) (CRS ID: 2010001416) (Year: 2021)	0	0	NA	NA	Committed
Mozambique	Environmental Sector Programme Support Phase II (Provided) (Adaptation) (CRS ID: 2010001416) (Year: 2021)	1,438	229	1,438	229	Disbursed
Myanmar	Country Programme 2016-2020. ISEG Thematic Programme: Inclusive and Sustainable Economic Growth (Committed) (Mitigation) (CRS ID: 20160	15,000,000	2,385,833	NA	NA	Committed
Myanmar	Country Programme 2016-2020. ISEG Thematic Programme: Inclusive and Sustainable Economic Growth (Provided) (Mitigation) (CRS ID: 2016001	7,259,807	1,154,712	7,259,807	1,154,712	Disbursed
Myanmar	Climate Adaptation in Coastal Communities of Myanmar: Improved Management of Mangrove Forests (Committed) (Adaptation) (CRS ID: 201700127	0	0	NA	NA	Committed
Myanmar	Climate Adaptation in Coastal Communities of Myanmar: Improved Management of Mangrove Forests (Provided) (Adaptation) (CRS ID: 201700127	628,709	100,000	628,709	100,000	Disbursed
Myanmar	Safe and Healthier Work Places and Improved Labour Dispute Settlement in Myanmar (Phase II) (Committed) (Adaptation) (CRS ID: 2019001027) (	0	0	NA	NA	Committed
Myanmar	Safe and Healthier Work Places and Improved Labour Dispute Settlement in Myanmar (Phase II) (Provided) (Adaptation) (CRS ID: 2019001027) (Y	0	0	0	0	Disbursed
Niger	Supporting Biodigester Sector for Green Jobs and Income Generation (Committed) (Adaptation) (CRS ID: 2020000368) (Year: 2021)	0	0	NA	NA	Committed
Niger	Supporting Biodigester Sector for Green Jobs and Income Generation (Provided) (Adaptation) (CRS ID: 2020000368) (Year: 2021)	4,140,000	658,490	4,140,000	658,490	Disbursed
Niger	Strengthening the Resilience of the Populations of the Zinder Region to Climate Risks (Committed) (Adaptation) (CRS ID: 2020000375) (Year: 2021	0	0	NA	NA	Committed
Niger	Strengthening the Resilience of the Populations of the Zinder Region to Climate Risks (Provided) (Adaptation) (CRS ID: 2020000375) (Year: 2021)	3,504,804	557,458	3,504,804	557,458	Disbursed
Nigeria	DMDP 2016 – Milky Way Partnership Nigeria – market driven sustainable growth in the dairy value chain (Committed) (Adaptation) (CRS ID: 20160	0	0	NA	NA	Committed
Nigeria	DMDP 2016 – Milky Way Partnership Nigeria – market driven sustainable growth in the dairy value chain (Provided) (Adaptation) (CRS ID: 2016001	445,979	70,935	445,979	70,935	Disbursed
Nigeria	Strategic Sector Cooperation on Livestock and Food Safety in Nigeria (Committed) (Cross-cutting) (CRS ID: 2020000209) (Year: 2021)	334,112	53,142	NA	NA	Committed
Nigeria	Strategic Sector Cooperation on Livestock and Food Safety in Nigeria (Provided) (Cross-cutting) (CRS ID: 2020000209) (Year: 2021)	334,112	53,142	334,112	53,142	Disbursed
Nigeria	SF4SM - School Food Project (NGA) (Committed) (Mitigation) (CRS ID: 2021000289) (Year: 2021)	497,430	79,119	NA	NA	Committed
Nigeria	SF4SM - School Food Project (NGA) (Provided) (Mitigation) (CRS ID: 2021000289) (Year: 2021)	298,458	47,471	298,458	47,471	Disbursed
Pakistan	Agritech Entrepreneurships (Committed) (Adaptation) (CRS ID: 2020000238) (Year: 2021)	0	0	NA	NA	Committed
Pakistan	Agritech Entrepreneurships (Provided) (Adaptation) (CRS ID: 2020000238) (Year: 2021)	62,441	9,932	62,441	9,932	Disbursed
South Africa	Table Mountain Water Source Area Partnership: Protecting Critical Groundwater (Committed) (Adaptation) (CRS ID: 2020000265) (Year: 2021)	0	0	NA	NA	Committed
South Africa	Table Mountain Water Source Area Partnership: Protecting Critical Groundwater (Provided) (Adaptation) (CRS ID: 2020000265) (Year: 2021)	1,124,800	178,906	1,124,800	178,906	Disbursed
South Africa	SSC on Sustainable and Smart Cities between the City of Aarhus (DK) and the City of Tshwane (South Africa) (Committed) (Cross-cutting) (CRS ID	684,775	108,917	NA	NA	Committed
South Africa	SSC on Sustainable and Smart Cities between the City of Aarhus (DK) and the City of Tshwane (South Africa) (Provided) (Cross-cutting) (CRS ID:	684,775	108,917	684,775	108,917	Disbursed
South Africa	SSC water sector, South Africa - Phase II (Committed) (Adaptation) (CRS ID: 2019001084) (Year: 2021)	601,181	95,621	NA	NA	Committed
South Africa	SSC water sector, South Africa - Phase II (Provided) (Adaptation) (CRS ID: 2019001084) (Year: 2021)	601,181	95,621	601,181	95,621	Disbursed
South Africa	ISS: Developing the African Climate Securities Programme (Committed) (Adaptation) (CRS ID: 2021000230) (Year: 2021)	81,500	12,963	NA	NA	Committed
South Africa	ISS: Developing the African Climate Securities Programme (Provided) (Adaptation) (CRS ID: 2021000230) (Year: 2021)	48,900	7,778	48,900	7,778	Disbursed
South Africa	Climate Envelope 2012: South Africa - low carbon transition in the energy efficiency sector (Committed) (Mitigation) (CRS ID: 2012001288) (Year: 2	0	0	NA	NA	Committed
South Africa	Climate Envelope 2012: South Africa - low carbon transition in the energy efficiency sector (Provided) (Mitigation) (CRS ID: 2012001288) (Year: 202	0	0	0	0	Disbursed
South Africa	South African - Danish Strategic Sector Cooperation on Water (Committed) (Adaptation) (CRS ID: 2016001102) (Year: 2021)	0	0	NA	NA	Committed
South Africa	South African - Danish Strategic Sector Cooperation on Water (Provided) (Adaptation) (CRS ID: 2016001102) (Year: 2021)	0	0	0	0	Disbursed
South Sudan	Country Programme for South Sudan 2016-2018 (Committed) (Adaptation) (CRS ID: 2016001221aa) (Year: 2021)	0	0	NA	NA	Committed
South Sudan	Country Programme for South Sudan 2016-2018 (Provided) (Adaptation) (CRS ID: 2016001221aa) (Year: 2021)	0	0	0	0	Disbursed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Committed) (Mitigation) (CRS ID: 2021000059) (Year: 2021)	25,000,000	3,976,388	NA	NA	Committed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Provided) (Mitigation) (CRS ID: 2021000059) (Year: 2021)	14,671,508	2,333,584	14,671,508	2,333,584	Disbursed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Committed) (Mitigation) (CRS ID: 2021000074) (Year: 2021)	15,000,000	2,385,833	NA	NA	Committed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Provided) (Mitigation) (CRS ID: 2021000074) (Year: 2021)	9,500,000	1,511,027	9,500,000	1,511,027	Disbursed
United Republic of Tanzania	Private Agricultural Sector Support (PASS) digitalisation Credit Guarantee 2020-2021 (Committed) (Adaptation) (CRS ID: 2019001240) (Year: 2021)	0	0	NA	NA	Committed
United Republic of Tanzania	Private Agricultural Sector Support (PASS) digitalisation Credit Guarantee 2020-2021 (Provided) (Adaptation) (CRS ID: 2019001240) (Year: 2021)	6,000,000	954,333	6,000,000	954,333	Disbursed
United Republic of Tanzania	DMDP 2017 – We SolVE Women Entrepreneurship through the Solar Value chain for Economic development in Tanzania (Committed) (Mitigation)	0	0	NA	NA	Committed
United Republic of Tanzania	DMDP 2017 – We SolVE Women Entrepreneurship through the Solar Value chain for Economic development in Tanzania (Provided) (Mitigation) (C	659,015	104,820	659,015	104,820	Disbursed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Committed) (Adaptation) (CRS ID: 2017001240aa) (Yea	0	0	NA	NA	Committed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Provided) (Adaptation) (CRS ID: 2017001240aa) (Year:	36,218,105	5,760,689	36,218,105	5,760,689	Disbursed
Uganda	Growing inclusive green entrepreneurship in the Kibale, Itwara and Matiri forest landscape, Western Uganda (Committed) (Adaptation) (CRS ID: 20	0	0	NA	NA	Committed
Uganda	Growing inclusive green entrepreneurship in the Kibale, Itwara and Matiri forest landscape, Western Uganda (Provided) (Adaptation) (CRS ID: 202	1,950,000	310,158	1,950,000	310,158	Disbursed
Uganda	Innovative and Gender-sensitive Nature-based Solutions for Resilience and Green Jobs (Committed) (Adaptation) (CRS ID: 2020000402) (Year: 202	0	0	NA	NA	Committed
Uganda	Innovative and Gender-sensitive Nature-based Solutions for Resilience and Green Jobs (Provided) (Adaptation) (CRS ID: 2020000402) (Year: 2021	1,002,500	159,453	1,002,500	159,453	Disbursed
Ukraine	DSIF - Ukraine - Zaporizhzhia Wastewater and Sludge Treatment Project (Committed) (Mitigation) (CRS ID: 2021000049) (Year: 2021)	28,250,000	4,493,318	NA	NA	Committed
Ukraine	DSIF - Ukraine - Zaporizhzhia Wastewater and Sludge Treatment Project (Provided) (Mitigation) (CRS ID: 2021000049) (Year: 2021)	28,250,000	4,493,318	28,250,000	4,493,318	Disbursed
Ukraine	DSIF - Ukraine - Kremenchuk District Heating Renovation Project (Committed) (Mitigation) (CRS ID: 2021000048) (Year: 2021)	19,050,000	3,030,008	NA	NA	Committed
Ukraine	DSIF - Ukraine - Kremenchuk District Heating Renovation Project (Provided) (Mitigation) (CRS ID: 2021000048) (Year: 2021)	19,050,000	3,030,008	19,050,000	3,030,008	Disbursed
Ukraine	Ukraine-Denmark Energy Partnership Programme (UDEPP, 2021-2026) (Committed) (Mitigation) (CRS ID: 2021000163) (Year: 2021)	30,000,000	4,771,665	NA	NA	Committed
Ukraine	Ukraine-Denmark Energy Partnership Programme (UDEPP, 2021-2026) (Provided) (Mitigation) (CRS ID: 2021000163) (Year: 2021)	6,100,000	970,239	6,100,000	970,239	Disbursed
Ukraine	Renewable Energy and Energy Efficiency Programme 2018-2021 (UDEC II) (Committed) (Mitigation) (CRS ID: 2018001066) (Year: 2021)	0	0	NA	NA	Committed
Ukraine	Renewable Energy and Energy Efficiency Programme 2018-2021 (UDEC II) (Provided) (Mitigation) (CRS ID: 2018001066) (Year: 2021)	3,627,565	576,984	3,627,565	576,984	Disbursed
Viet Nam	Circular business models: international experiences and applicability to Vietnam in fulfilling the 2030 Sustainable Development Goals (SDGs) (Com	325,000	51,693	NA	NA	Committed
Viet Nam	Circular business models: international experiences and applicability to Vietnam in fulfilling the 2030 Sustainable Development Goals (SDGs) (Pro	204,430	32,516	204,430	32,516	Disbursed
Viet Nam	DBP Thuy Son JSC and C.F. Nielsen A/S (Committed) (Mitigation) (CRS ID: 2014001245) (Year: 2021)	0	0	NA	NA	Committed
Viet Nam	DBP Thuy Son JSC and C.F. Nielsen A/S (Provided) (Mitigation) (CRS ID: 2014001245) (Year: 2021)	140,340	22,322	140,340	22,322	Disbursed
Viet Nam	Climate Envelope 2012: Vietnam - Low carbon transition in the energy efficiency sector (Committed) (Mitigation) (CRS ID: 2021000038) (Year: 2021	33,250	5,289	NA	NA	Committed
Viet Nam	Climate Envelope 2012: Vietnam - Low carbon transition in the energy efficiency sector (Provided) (Mitigation) (CRS ID: 2021000038) (Year: 2021)	33,250	5,289	33,250	5,289	Disbursed
Viet Nam	Climate Envelope 2012: Vietnam - Low carbon transition in the energy efficiency sector (Committed) (Mitigation) (CRS ID: 2012001287) (Year: 2021	0	0	NA	NA	Committed
Viet Nam	Climate Envelope 2012: Vietnam - Low carbon transition in the energy efficiency sector (Provided) (Mitigation) (CRS ID: 2012001287) (Year: 2021)	104,811	16,671	104,811	16,671	Disbursed
Viet Nam	Green Youth - Engaging young generation for Sustainable Energy and Climate Actions (Committed) (Cross-cutting) (CRS ID: 2021000168) (Year: 2	185,008	29,426	NA	NA	Committed
Viet Nam	Green Youth - Engaging young generation for Sustainable Energy and Climate Actions (Provided) (Cross-cutting) (CRS ID: 2021000168) (Year: 20	107,907	17,163	107,907	17,163	Disbursed
-Northern Africa	CONSULTANCY AGREEMENT regarding formulation of Development Engagement in North Africa (Committed) (Cross-cutting) (CRS ID: 20210000	118,380	18,829	NA	NA	Committed
-Northern Africa	CONSULTANCY AGREEMENT regarding formulation of Development Engagement in North Africa (Provided) (Cross-cutting) (CRS ID: 2021000095	35,514	5,649	35,514	5,649	Disbursed
Argentina	SSC Argentina Urban Development phase I (Committed) (Mitigation) (CRS ID: 2020000187) (Year: 2021)	2,200,000	349,922	NA	NA	Committed
Argentina	SSC Argentina Urban Development phase I (Provided) (Mitigation) (CRS ID: 2020000187) (Year: 2021)	2,200,000	349,922	2,200,000	349,922	Disbursed
Ghana	SSC on Cities (Water) in Ghana, phase I (Committed) (Adaptation) (CRS ID: 2020000076) (Year: 2021)	1,115,171	177,374	NA	NA	Committed
Ghana	SSC on Cities (Water) in Ghana, phase I (Provided) (Adaptation) (CRS ID: 2020000076) (Year: 2021)	1,115,171	177,374	1,115,171	177,374	Disbursed
Morocco	Strategic Sector Cooperation Danish-Moroccan Water Partnership (Committed) (Adaptation) (CRS ID: 2021000100) (Year: 2021)	620,533	98,699	NA	NA	Committed
Morocco	Strategic Sector Cooperation Danish-Moroccan Water Partnership (Provided) (Adaptation) (CRS ID: 2021000100) (Year: 2021)	620,533	98,699	620,533	98,699	Disbursed
Rwanda	Danish support to the World Bank Rwanda - Energy Access and Quality Improvement Project (Committed) (Mitigation) (CRS ID: 2021000258) (Yea	123,800	19,691	NA	NA	Committed
Rwanda	Danish support to the World Bank Rwanda - Energy Access and Quality Improvement Project (Provided) (Mitigation) (CRS ID: 2021000258) (Year:	123,800	19,691	123,800	19,691	Disbursed
Türkiye	Strategic Sector Cooperation on Energy between Denmark and Turkey, Phase II (Committed) (Mitigation) (CRS ID: 2020000072) (Year: 2021)	3,287,134	522,837	NA	NA	Committed
Türkiye	Strategic Sector Cooperation on Energy between Denmark and Turkey, Phase II (Provided) (Mitigation) (CRS ID: 2020000072) (Year: 2021)	3,287,134	522,837	3,287,134	522,837	Disbursed
Global	Growth Advisors (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	4,112,500	654,116	NA	NA	Committed
Global	Growth Advisors (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	4,112,500	654,116	4,112,500	654,116	Disbursed
Global	Growth Advisors (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	16,449,999	2,616,463	NA	NA	Committed
Global	Growth Advisors (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	16,449,999	2,616,463	16,449,999	2,616,463	Disbursed
Global	Growth Advisors (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	3,290,000	523,293	NA	NA	Committed
Global	Growth Advisors (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	3,290,000	523,293	3,290,000	523,293	Disbursed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	6,600,470	1,049,841	NA	NA	Committed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	6,600,470	1,049,841	6,600,470	1,049,841	Disbursed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Caritas Denmark Lot CIV strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	1,413,500	224,825	NA	NA	Committed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	1,413,500	224,825	1,413,500	224,825	Disbursed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Caritas Denmark Lot HUM strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	CISU - Pool grants (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	22,152,158	3,523,423	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	18,780,049	2,987,070	18,780,049	2,987,070	Disbursed
Global	CISU - Pool grants (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	5,270,317	838,273	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	4,468,044	710,667	4,468,044	710,667	Disbursed
Global	CISU - Pool grants (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	15,485,794	2,463,101	NA	NA	Committed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	15,485,794	2,463,101	15,485,794	2,463,101	Disbursed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	977,318	155,448	NA	NA	Committed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	977,318	155,448	977,318	155,448	Disbursed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	4,623,990	735,471	NA	NA	Committed
Global	Danish Church Aid Lot CIV strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	4,623,990	735,471	4,623,990	735,471	Disbursed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	9,724,713	1,546,769	NA	NA	Committed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	9,724,713	1,546,769	9,724,713	1,546,769	Disbursed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	10,118,188	1,609,354	NA	NA	Committed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	10,118,188	1,609,354	10,118,188	1,609,354	Disbursed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	8,255,070	1,313,014	NA	NA	Committed
Global	Danish Church Aid Lot HUM strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	8,255,070	1,313,014	8,255,070	1,313,014	Disbursed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	18,375,000	2,922,645	NA	NA	Committed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	18,375,000	2,922,645	18,375,000	2,922,645	Disbursed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	5,000,000	795,278	NA	NA	Committed
Global	Danish Refugee Council Lot HUM Strategic Partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	5,000,000	795,278	5,000,000	795,278	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	10,404,118	1,654,832	10,404,118	1,654,832	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	1,692,362	269,179	1,692,362	269,179	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	424,821	67,570	424,821	67,570	Disbursed

Table E2(1): Bilateral Support in 2021 (cont.)

(ROW 451-504 OF 504)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency2	USD3	Status
Global	FFU Windows 1 and 2 2019 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	13,599,065	2,163,006	13,599,065	2,163,006	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	2,203,596	350,494	2,203,596	350,494	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	27,308,563	4,343,578	27,308,563	4,343,578	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	9,626,396	1,531,131	9,626,396	1,531,131	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	4,482,737	713,004	4,482,737	713,004	Disbursed
Global	FFU Windows 1 and 2 2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	49,215,285	7,827,963	NA	NA	Committed
Global	FFU Windows 1 and 2 2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	FFU Windows 1 and 2 2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	66,946,723	10,648,246	NA	NA	Committed
Global	FFU Windows 1 and 2 2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	FFU Windows 1 and 2 2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	11,999,526	1,908,591	NA	NA	Committed
Global	FFU Windows 1 and 2 2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	16,192,118	2,575,446	NA	NA	Committed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	16,192,118	2,575,446	16,192,118	2,575,446	Disbursed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Red Cross Denmark Lot CIV Strategic Partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	9,449,682	1,503,024	NA	NA	Committed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	9,449,662	1,503,021	9,449,662	1,503,021	Disbursed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Red Cross Denmark Lot HUM Strategic Partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	13,773,812	2,190,801	NA	NA	Committed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	13,773,812	2,190,801	13,773,812	2,190,801	Disbursed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	726,560	115,563	NA	NA	Committed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	726,560	115,563	726,560	115,563	Disbursed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Save the Children Lot CIV strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	13,080,128	2,080,466	NA	NA	Committed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	13,080,128	2,080,466	13,080,128	2,080,466	Disbursed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	Save the Children Lot HUM strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	739,658	117,647	NA	NA	Committed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	739,658	117,647	739,658	117,647	Disbursed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	NA	NA	Committed
Global	PlanBornefonden Lot CIV strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	0	0	0	0	Disbursed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Committed) (Adaptation) (CRS ID: NA) (Year: 2021)	1,318,686	209,744	NA	NA	Committed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Provided) (Adaptation) (CRS ID: NA) (Year: 2021)	1,318,686	209,744	1,318,686	209,744	Disbursed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Committed) (Mitigation) (CRS ID: NA) (Year: 2021)	1,493,799	237,597	NA	NA	Committed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Provided) (Mitigation) (CRS ID: NA) (Year: 2021)	1,493,799	237,597	1,493,799	237,597	Disbursed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2021)	1,330,482	211,621	NA	NA	Committed
Global	WWF World Wildlife Fund Lot CIv strategic partnership 2018-2021 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2021)	1,330,482	211,621	1,330,482	211,621	Disbursed

Table E2(2): Bilateral Support in 2022

(ROW 3-150 OF 622)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency	USD3	Status
Africa	Contribution to EIP/EFSD (Committed) (Cross-cutting) (CRS ID: 2019001169) (Year: 2022)	0	0	NA	NA	Committed
Africa	Contribution to EIP/EFSD (Provided) (Cross-cutting) (CRS ID: 2019001169) (Year: 2022)	388,354	54,882	388,354	54,882	Disbursed
Africa	Sustainable Energy Fund for Africa (SEFA 2.0) (Committed) (Mitigation) (CRS ID: 2021000302) (Year: 2022)	0	0	NA	NA	Committed
Africa	Sustainable Energy Fund for Africa (SEFA 2.0) (Provided) (Mitigation) (CRS ID: 2021000302) (Year: 2022)	50,000,000	7,065,987	50,000,000	7,065,987	Disbursed
-Southern Africa	CCDMP 2022-2025: UNDP - Regional Programme on Climate Security in Western Sahel (RPCS) (Committed) (Adaptation) (CRS ID: 2022000307) (Year: 2022)	40,000,000	5,652,790	NA	NA	Committed
-Southern Africa	CCDMP 2022-2025: UNDP - Regional Programme on Climate Security in Western Sahel (RPCS) (Provided) (Adaptation) (CRS ID: 2022000307) (Year: 2022)	15,000,000	2,119,796	15,000,000	2,119,796	Disbursed
-Southern Africa	Denmark's support to the African Water Facility (Committed) (Adaptation) (CRS ID: 2021000291) (Year: 2022)	0	0	NA	NA	Committed
-Southern Africa	Denmark's support to the African Water Facility (Provided) (Adaptation) (CRS ID: 2021000291) (Year: 2022)	23,005,916	3,251,190	23,005,916	3,251,190	Disbursed
Asia	2022-9490 Green Climate Fund - GCF - Seoul (Committed) (Cross-cutting) (CRS ID: 2022000092) (Year: 2022)	2,626,000	371,106	NA	NA	Committed
Asia	2022-9490 Green Climate Fund - GCF - Seoul (Provided) (Cross-cutting) (CRS ID: 2022000092) (Year: 2022)	1,263,532	178,562	1,263,532	178,562	Disbursed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Committed) (Adaptation) (CRS ID: 2016001291aa) (Year: 2022)	1,350,000	190,782	NA	NA	Committed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Provided) (Adaptation) (CRS ID: 2016001291aa) (Year: 2022)	0	0	0	0	Disbursed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Committed) (Adaptation) (CRS ID: 2016001291ac) (Year: 2022)	0	0	NA	NA	Committed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Provided) (Adaptation) (CRS ID: 2016001291ac) (Year: 2022)	5,000,000	706,599	5,000,000	706,599	Disbursed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Committed) (Cross-cutting) (CRS ID: 2016001117aa) (Year: 2022)	0	0	NA	NA	Committed
Bangladesh	Thematic Programme Climate Change and Sustainable Energy (Provided) (Cross-cutting) (CRS ID: 2016001117aa) (Year: 2022)	10,000,000	1,413,197	10,000,000	1,413,197	Disbursed
Egypt	Supporting the 27th session of the Conference of the Parties (COP27) to the UNFCCC (Committed) (Cross-cutting) (CRS ID: 2022000441) (Year: 2022)	2,940,900	415,607	NA	NA	Committed
Egypt	Supporting the 27th session of the Conference of the Parties (COP27) to the UNFCCC (Provided) (Cross-cutting) (CRS ID: 2022000441) (Year: 2022)	2,940,900	415,607	2,940,900	415,607	Disbursed
Ethiopia	UNICEF WASH Ethiopia 2022-2025 (Committed) (Adaptation) (CRS ID: 2022000197) (Year: 2022)	35,000,000	4,946,191	NA	NA	Committed
Ethiopia	UNICEF WASH Ethiopia 2022-2025 (Provided) (Adaptation) (CRS ID: 2022000197) (Year: 2022)	20,000,000	2,826,395	20,000,000	2,826,395	Disbursed
Indonesia	Support to World Bank Indonesia Mangroves for Coastal Resilience Project (M4CR) Under Indonesia Oceans MDTF (Committed) (Cross-cutting) (CRS ID: 2022	35,000,000	4,946,191	NA	NA	Committed
Indonesia	Support to World Bank Indonesia Mangroves for Coastal Resilience Project (M4CR) Under Indonesia Oceans MDTF (Provided) (Cross-cutting) (CRS ID: 20220(	31,640,000	4,471,357	31,640,000	4,471,357	Disbursed
Global	UNCDF Local Climate Adaptive Living Facility (Committed) (Adaptation) (CRS ID: 2022000411) (Year: 2022)	50,000,000	7,065,987	NA	NA	Committed
Global	UNCDF Local Climate Adaptive Living Facility (Provided) (Adaptation) (CRS ID: 2022000411) (Year: 2022)	50,000,000	7,065,987	50,000,000	7,065,987	Disbursed
Global	Support for Systematic Observations Financing Facility SOFF (Committed) (Adaptation) (CRS ID: 2022000407) (Year: 2022)	25,000,000	3,532,994	NA	NA	Committed
Global	Support for Systematic Observations Financing Facility SOFF (Provided) (Adaptation) (CRS ID: 2022000407) (Year: 2022)	24,500,000	3,462,334	24,500,000	3,462,334	Disbursed
Global	Support for the MPTF for the UN Decade on Ecosystem Restoration (Committed) (Cross-cutting) (CRS ID: 2022000431) (Year: 2022)	35,000,000	4,946,191	NA	NA	Committed
Global	Support for the MPTF for the UN Decade on Ecosystem Restoration (Provided) (Cross-cutting) (CRS ID: 2022000431) (Year: 2022)	15,000,000	2,119,796	15,000,000	2,119,796	Disbursed
Global	Cool Coalition (Committed) (Mitigation) (CRS ID: 2019001249) (Year: 2022)	0	0	NA	NA	Committed
Global	Cool Coalition (Provided) (Mitigation) (CRS ID: 2019001249) (Year: 2022)	1,500,000	211,980	1,500,000	211,980	Disbursed
Global	Support for CTCN 2020-2022 (Committed) (Cross-cutting) (CRS ID: 2020000441) (Year: 2022)	0	0	NA	NA	Committed
Global	Support for CTCN 2020-2022 (Provided) (Cross-cutting) (CRS ID: 2020000441) (Year: 2022)	9,154,063	1,293,650	9,154,063	1,293,650	Disbursed
Global	UNEP Copenhagen Climate Center (Committed) (Mitigation) (CRS ID: 2022000017) (Year: 2022)	9,995,000	1,412,491	NA	NA	Committed
Global	UNEP Copenhagen Climate Center (Provided) (Mitigation) (CRS ID: 2022000017) (Year: 2022)	9,995,000	1,412,491	9,995,000	1,412,491	Disbursed
Global	UNEP-DHI Centre 2023-2026 (Committed) (Adaptation) (CRS ID: 2022000380) (Year: 2022)	60,000,000	8,479,185	NA	NA	Committed
Global	UNEP-DHI Centre 2023-2026 (Provided) (Adaptation) (CRS ID: 2022000380) (Year: 2022)	30,000,000	4,239,592	30,000,000	4,239,592	Disbursed
Global	UN Environment Programme Copenhagen Climate Centre (UNEP-CCC) (Committed) (Cross-cutting) (CRS ID: 2022000471) (Year: 2022)	68,005,000	9,610,449	NA	NA	Committed
Global	UN Environment Programme Copenhagen Climate Centre (UNEP-CCC) (Provided) (Cross-cutting) (CRS ID: 2022000471) (Year: 2022)	34,005,000	4,805,578	34,005,000	4,805,578	Disbursed
Global	UNICEF Sustainable WASH innovation Hub (Committed) (Adaptation) (CRS ID: 2021020002ab) (Year: 2022)	10,000,000	1,413,197	NA	NA	Committed
Global	UNICEF Sustainable WASH innovation Hub (Provided) (Adaptation) (CRS ID: 2021020002ab) (Year: 2022)	10,000,000	1,413,197	10,000,000	1,413,197	Disbursed
Global	Santiago Network workshop 4-6 May 2022 (Committed) (Adaptation) (CRS ID: 2022000113) (Year: 2022)	1,500,000	211,980	NA	NA	Committed
Global	Santiago Network workshop 4-6 May 2022 (Provided) (Adaptation) (CRS ID: 2022000113) (Year: 2022)	1,500,000	211,980	1,500,000	211,980	Disbursed
Global	Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) Trust Fund, Copenhagen May 2022 (Committed) (Cross-cutting) (CRS	2,213,400	312,797	NA	NA	Committed
Global	Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) Trust Fund, Copenhagen May 2022 (Provided) (Cross-cutting) (CRS	2,213,400	312,797	2,213,400	312,797	Disbursed
Global	Contribution to UNFCCC Trust Fund for Participation for COP27 (Committed) (Cross-cutting) (CRS ID: 2022000282) (Year: 2022)	5,000,000	706,599	NA	NA	Committed
Global	Contribution to UNFCCC Trust Fund for Participation for COP27 (Provided) (Cross-cutting) (CRS ID: 2022000282) (Year: 2022)	5,000,000	706,599	5,000,000	706,599	Disbursed
Global	World Bank - general contribution ESMAP 2017-20 (Committed) (Adaptation) (CRS ID: 2017001284) (Year: 2022)	0	0	NA	NA	Committed
Global	World Bank - general contribution ESMAP 2017-20 (Provided) (Adaptation) (CRS ID: 2017001284) (Year: 2022)	1,103,722	155,978	1,103,722	155,978	Disbursed
Global	Danish Support to ESMAP 2020-2024 (Committed) (Mitigation) (CRS ID: 2020000376) (Year: 2022)	0	0	NA	NA	Committed
Global	Danish Support to ESMAP 2020-2024 (Provided) (Mitigation) (CRS ID: 2020000376) (Year: 2022)	45,000,000	6,359,389	45,000,000	6,359,389	Disbursed
Global	Support for Global Water Security and Sanitation Partnership multi donor trust fund 2019-22 (Committed) (Adaptation) (CRS ID: 2019001191) (Year: 2022)	0	0	NA	NA	Committed
Global	Support for Global Water Security and Sanitation Partnership multi donor trust fund 2019-22 (Provided) (Adaptation) (CRS ID: 2019001191) (Year: 2022)	8,750,000	1,236,548	8,750,000	1,236,548	Disbursed
Global	Danish Support to CIF ACT (Committed) (Mitigation) (CRS ID: 2022000423) (Year: 2022)	100,000,000	14,131,975	NA	NA	Committed
Global	Danish Support to CIF ACT (Provided) (Mitigation) (CRS ID: 2022000423) (Year: 2022)	100,000,000	14,131,975	100,000,000	14,131,975	Disbursed
Global	Regional Energy Savings Insurance and Risk Management Program (Committed) (Mitigation) (CRS ID: 2015001253) (Year: 2022)	0	0	NA	NA	Committed
Global	Regional Energy Savings Insurance and Risk Management Program (Provided) (Mitigation) (CRS ID: 2015001253) (Year: 2022)	697,728	98,603	697,728	98,603	Disbursed
Global	Clean Energy Transition Programme (CETP) 2021-25 (Committed) (Mitigation) (CRS ID: 2021000236) (Year: 2022)	0	0	NA	NA	Committed
Global	Clean Energy Transition Programme (CETP) 2021-25 (Provided) (Mitigation) (CRS ID: 2021000236) (Year: 2022)	13,052,385	1,844,560	13,052,385	1,844,560	Disbursed
Global	Danish Support to the OECD Research Collaborative (Committed) (Cross-cutting) (CRS ID: 2022000421) (Year: 2022)	1,500,000	211,980	NA	NA	Committed
Global	Danish Support to the OECD Research Collaborative (Provided) (Cross-cutting) (CRS ID: 2022000421) (Year: 2022)	1,500,000	211,980	1,500,000	211,980	Disbursed
Global	Dansk bidrag til IRENA 2018 (Committed) (Mitigation) (CRS ID: 2018001239) (Year: 2022)	0	0	NA	NA	Committed
Global	Dansk bidrag til IRENA 2018 (Provided) (Mitigation) (CRS ID: 2018001239) (Year: 2022)	248,100	35,061	248,100	35,061	Disbursed
Global	IRENA SIDS Lighthouses Initiative 2.0 (Committed) (Mitigation) (CRS ID: 2019001202) (Year: 2022)	0	0	NA	NA	Committed
Global	IRENA SIDS Lighthouses Initiative 2.0 (Provided) (Mitigation) (CRS ID: 2019001202) (Year: 2022)	12,500,000	1,766,497	12,500,000	1,766,497	Disbursed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Committed) (Mitigation) (CRS ID: 2020000431ac) (Year: 2022)	0	0	NA	NA	Committed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Provided) (Mitigation) (CRS ID: 2020000431ac) (Year: 2022)	20,000,000	2,826,395	20,000,000	2,826,395	Disbursed
Mexico	Sustainability and environment aid roadmap for the private sector (Committed) (Mitigation) (CRS ID: 2022000317) (Year: 2022)	499,732	70,622	NA	NA	Committed
Mexico	Sustainability and environment aid roadmap for the private sector (Provided) (Mitigation) (CRS ID: 2022000317) (Year: 2022)	299,839	42,373	299,839	42,373	Disbursed
Oceania	Rising Nations Initiative (Committed) (Adaptation) (CRS ID: 2022000387) (Year: 2022)	750,000	105,990	NA	NA	Committed
Oceania	Rising Nations Initiative (Provided) (Adaptation) (CRS ID: 2022000387) (Year: 2022)	750,000	105,990	750,000	105,990	Disbursed
South Africa	UNDP Think Big Start Small project (Committed) (Adaptation) (CRS ID: 2021000066) (Year: 2022)	0	0	NA	NA	Committed
South Africa	UNDP Think Big Start Small project (Provided) (Adaptation) (CRS ID: 2021000066) (Year: 2022)	200,000	28,264	200,000	28,264	Disbursed
Uganda	Beyond the Grid Fund for Africa (BGFA) (Committed) (Mitigation) (CRS ID: 2020000323) (Year: 2022)	0	0	NA	NA	Committed
Uganda	Beyond the Grid Fund for Africa (BGFA) (Provided) (Mitigation) (CRS ID: 2020000323) (Year: 2022)	17,000,000	2,402,436	17,000,000	2,402,436	Disbursed
Africa	Danish Support to the Global Green Growth Institute (GGGI) 2020-2022 (Committed) (Mitigation) (CRS ID: 2020000359) (Year: 2022)	0	0	NA	NA	Committed
Africa	Danish Support to the Global Green Growth Institute (GGGI) 2020-2022 (Provided) (Mitigation) (CRS ID: 2020000359) (Year: 2022)	27,637	3,906	27,637	3,906	Disbursed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Committed) (Mitigation) (CRS ID: 2022000246) (Year: 2022)	100,000,000	14,131,975	NA	NA	Committed
Africa	High Risk - High Impact Investment in Africa. Capital contribution to IFU (Provided) (Mitigation) (CRS ID: 2022000246) (Year: 2022)	99,500,000	14,061,315	99,500,000	14,061,315	Disbursed
Africa	Support to Africa Adaptation Acceleration Programme through Global Center on Adaptation (Committed) (Adaptation) (CRS ID: 2022000463) (Year: 2022)	35,000,000	4,946,191	NA	NA	Committed
Africa	Support to Africa Adaptation Acceleration Programme through Global Center on Adaptation (Provided) (Adaptation) (CRS ID: 2022000463) (Year: 2022)	10,300,000	1,455,593	10,300,000	1,455,593	Disbursed
Africa	Appraisal of Danish support to climate adaptation in cities in Africa (Committed) (Adaptation) (CRS ID: 2022000244) (Year: 2022)	238,926	33,765	NA	NA	Committed
Africa	Appraisal of Danish support to climate adaptation in cities in Africa (Provided) (Adaptation) (CRS ID: 2022000244) (Year: 2022)	235,407	33,268	235,407	33,268	Disbursed
Africa	Appraisal of a proposed contribution to the Energy and Environment Partnership Africa Trust Fund (EEP Africa) (Committed) (Mitigation) (CRS ID: 2022000184)	130,000	18,372	NA	NA	Committed
Africa	Appraisal of a proposed contribution to the Energy and Environment Partnership Africa Trust Fund (EEP Africa) (Provided) (Mitigation) (CRS ID: 2022000184) (	98,648	13,941	98,648	13,941	Disbursed
-Southern Africa	CCDMP 2022-2025: SNV - Programme Agroalimentaire pour la Résilience Intégrée et le Développement Économique au Sahel (Pro-ARIDES) (Committed) (Ada	20,000,000	2,826,395	NA	NA	Committed
-Southern Africa	CCDMP 2022-2025: SNV - Programme Agroalimentaire pour la Résilience Intégrée et le Développement Économique au Sahel (Pro-ARIDES) (Provided) (Adap	7,500,000	1,059,898	7,500,000	1,059,898	Disbursed
-Southern Africa	CCDMP 2022-2026: NIRAS - Monitoring, Evaluation, Accountability and Learning (MEAL) (Committed) (Adaptation) (CRS ID: 2022000356) (Year: 2022)	13,998,057	1,978,202	NA	NA	Committed
-Southern Africa	CCDMP 2022-2026: NIRAS - Monitoring, Evaluation, Accountability and Learning (MEAL) (Provided) (Adaptation) (CRS ID: 2022000356) (Year: 2022)	2,838,611	401,152	2,838,611	401,152	Disbursed
-Southern Africa	Identification of engagements for a new initiative on Climate change, conflict, displacement and irregular migration with a focus on the Sahel Region (Committe	0	0	NA	NA	Committed
-Southern Africa	Identification of engagements for a new initiative on Climate change, conflict, displacement and irregular migration with a focus on the Sahel Region (Provided)	37,002	5,229	37,002	5,229	Disbursed
Asia	Formulation of a Danish Organisational Strategy for UNRWA (2023-2028) (Committed) (Cross-cutting) (CRS ID: 2021000284) (Year: 2022)	0	0	NA	NA	Committed
Asia	Formulation of a Danish Organisational Strategy for UNRWA (2023-2028) (Provided) (Cross-cutting) (CRS ID: 2021000284) (Year: 2022)	87,449	12,358	87,449	12,358	Disbursed
Bangladesh	Enhancing Safe Drinking Water Security and Climate Resilience through Rainwater Harvesting (Committed) (Adaptation) (CRS ID: 2021000350) (Year: 2022)	0	0	NA	NA	Committed
Bangladesh	Enhancing Safe Drinking Water Security and Climate Resilience through Rainwater Harvesting (Provided) (Adaptation) (CRS ID: 2021000350) (Year: 2022)	6,545,700	925,037	6,545,700	925,037	Disbursed
Bangladesh	IWM - Enhanced Flood Forecasting and Warning (Committed) (Adaptation) (CRS ID: 2021000400) (Year: 2022)	0	0	NA	NA	Committed
Bangladesh	IWM - Enhanced Flood Forecasting and Warning (Provided) (Adaptation) (CRS ID: 2021000400) (Year: 2022)	1,080,000	152,625	1,080,000	152,625	Disbursed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Committed) (Adaptation) (CRS ID: 2016001291ab) (Year: 2022)	0	0	NA	NA	Committed
Bangladesh	Thematic Programme Agriculture, Growth and Employment (Provided) (Adaptation) (CRS ID: 2016001291ab) (Year: 2022)	143,194	20,236	143,194	20,236	Disbursed
Bangladesh	DGBP 2022. Clean Cooking Scale Up (CCSP) (Committed) (Mitigation) (CRS ID: 2022000426) (Year: 2022)	11,088,000	1,566,953	NA	NA	Committed
Bangladesh	DGBP 2022. Clean Cooking Scale Up (CCSP) (Provided) (Mitigation) (CRS ID: 2022000426) (Year: 2022)	0	0	0	0	Disbursed
Bolivia (Plurinational State of)	Bolivia Country Programme - part I: Promotion of Inclusive and Sustainable Economic Growth (Committed) (Cross-cutting) (CRS ID: 2013001378) (Year: 2022)	0	0	NA	NA	Committed
Bolivia (Plurinational State of)	Bolivia Country Programme - part I: Promotion of Inclusive and Sustainable Economic Growth (Provided) (Cross-cutting) (CRS ID: 2013001378) (Year: 2022)	47,500	6,713	47,500	6,713	Disbursed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Committed) (Adaptation) (CRS ID: 2021000263ab) (Year: 2022)	120,000,000	16,958,369	NA	NA	Committed
Burkina Faso	Burkina, Water 2021-2025 - Support adaptation to climate change (Provided) (Adaptation) (CRS ID: 2021000263ab) (Year: 2022)	25,949,551	3,667,184	25,949,551	3,667,184	Disbursed
Burkina Faso	DMDP 2017 – Innovating for Impact in Sesame in Burkina Faso (Committed) (Adaptation) (CRS ID: 2017001259) (Year: 2022)	0	0	NA	NA	Committed
Burkina Faso	DMDP 2017 – Innovating for Impact in Sesame in Burkina Faso (Provided) (Adaptation) (CRS ID: 2017001259) (Year: 2022)	843,000	119,133	843,000	119,133	Disbursed
Burkina Faso	Burkina - Adaptability reserve, M&E 2021-2025 (Committed) (Adaptation) (CRS ID: 2021000261) (Year: 2022)	0	0	NA	NA	Committed
Burkina Faso	Burkina - Adaptability reserve, M&E 2021-2025 (Provided) (Adaptation) (CRS ID: 2021000261) (Year: 2022)	369,467	52,213	369,467	52,213	Disbursed
Burkina Faso	Eau et Assainissement 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001306aa) (Year: 2022)	0	0	NA	NA	Committed
Burkina Faso	Eau et Assainissement 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001306aa) (Year: 2022)	565	80	565	80	Disbursed
China	SSC in Sustainable Urban Development between Copenhagen and Beijing (Committed) (Adaptation) (CRS ID: 2018001149) (Year: 2022)	1,048,575	148,184	NA	NA	Committed
China	SSC in Sustainable Urban Development between Copenhagen and Beijing (Provided) (Adaptation) (CRS ID: 2018001149) (Year: 2022)	1,048,575	148,184	1,048,575	148,184	Disbursed
China	SSC in the Maritime Sector China fase 2 (Committed) (Cross-cutting) (CRS ID: 2020000069) (Year: 2022)	254,355	35,945	NA	NA	Committed
China	SSC in the Maritime Sector China fase 2 (Provided) (Cross-cutting) (CRS ID: 2020000069) (Year: 2022)	254,355	35,945	254,355	35,945	Disbursed
China	Sino-Danish Offshore Wind Cooperation ('Quality Offshore Wind'), Phase 2 (Committed) (Mitigation) (CRS ID: 2019001016) (Year: 2022)	173,974	24,586	NA	NA	Committed
China	Sino-Danish Offshore Wind Cooperation ('Quality Offshore Wind'), Phase 2 (Provided) (Mitigation) (CRS ID: 2019001016) (Year: 2022)	173,974	24,586	173,974	24,586	Disbursed
Egypt	SSC in Energy DK and Egypt, phase I (Committed) (Mitigation) (CRS ID: 2020000257) (Year: 2022)	6,315,085	892,446	NA	NA	Committed
Egypt	SSC in Energy DK and Egypt, phase I (Provided) (Mitigation) (CRS ID: 2020000257) (Year: 2022)	6,315,085	892,446	6,315,085	892,446	Disbursed
Egypt	Environmental Justice and Climate Change Mitigation (Committed) (Adaptation) (CRS ID: 2022000477) (Year: 2022)	465,307	65,757	NA	NA	Committed
Egypt	Environmental Justice and Climate Change Mitigation (Provided) (Adaptation) (CRS ID: 2022000477) (Year: 2022)	279,184	39,454	279,184	39,454	Disbursed
Ethiopia	ETHIOPIA COUNTRY PROGRAMME: CLIMATE RESILIENT FOREST LIVELIHOODS in ETHIOPIA (Committed) (Cross-cutting) (CRS ID: 2018001210) (Year: 20	0	0	NA	NA	Committed
Ethiopia	ETHIOPIA COUNTRY PROGRAMME: CLIMATE RESILIENT FOREST LIVELIHOODS in ETHIOPIA (Provided) (Cross-cutting) (CRS ID: 2018001210) (Year: 202	5,356,569	756,989	5,356,569	756,989	Disbursed
Ethiopia	DMDP 2018 – Coffee-novation: Green diversification of Ethiopia's garden coffee value chain (Committed) (Cross-cutting) (CRS ID: 2018001231) (Year: 2022)	0	0	NA	NA	Committed
Ethiopia	DMDP 2018 – Coffee-novation: Green diversification of Ethiopia's garden coffee value chain (Provided) (Cross-cutting) (CRS ID: 2018001231) (Year: 2022)	2,986,000	421,981	2,986,000	421,981	Disbursed
Ethiopia	Community Led Adaptation for Climate Resilience and Green Income Opportunities in Ethiopia (Committed) (Adaptation) (CRS ID: 2020000377) (Year: 2022)	0	0	NA	NA	Committed
Ethiopia	Community Led Adaptation for Climate Resilience and Green Income Opportunities in Ethiopia (Provided) (Adaptation) (CRS ID: 2020000377) (Year: 2022)	2,493,745	352,415	2,493,745	352,415	Disbursed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Committed) (Mitigation) (CRS ID: 2016001197aa) (Year: 2022)	0	0	NA	NA	Committed
Ethiopia	Accelerating Wind Power Generation in Ethiopia (2016-2019) (Provided) (Mitigation) (CRS ID: 2016001197aa) (Year: 2022)	561,879	79,405	561,879	79,405	Disbursed
Ethiopia	SSC in the Energy sector between DK and Ethiopia phase I (Committed) (Mitigation) (CRS ID: 2020000073) (Year: 2022)	465,060	65,722	NA	NA	Committed
Ethiopia	SSC in the Energy sector between DK and Ethiopia phase I (Provided) (Mitigation) (CRS ID: 2020000073) (Year: 2022)	465,060	65,722	465,060	65,722	Disbursed
Ethiopia	Strategic Sector Cooperation Danish-Ethiopian Water Partnership (Committed) (Adaptation) (CRS ID: 2021000101) (Year: 2022)	440,442	62,243	NA	NA	Committed
Ethiopia	Strategic Sector Cooperation Danish-Ethiopian Water Partnership (Provided) (Adaptation) (CRS ID: 2021000101) (Year: 2022)	440,442	62,243	440,442	62,243	Disbursed
Georgia	Georgia Energy Programme Phase II (2020-2023) (Committed) (Mitigation) (CRS ID: 2020000181) (Year: 2022)	0	0	NA	NA	Committed
Georgia	Georgia Energy Programme Phase II (2020-2023) (Provided) (Mitigation) (CRS ID: 2020000181) (Year: 2022)	2,030,193	286,906	2,030,193	286,906	Disbursed
India	IFU India Climate Finance Initiative (Committed) (Mitigation) (CRS ID: 2022000377) (Year: 2022)	100,000,000	14,131,975	NA	NA	Committed
India	IFU India Climate Finance Initiative (Provided) (Mitigation) (CRS ID: 2022000377) (Year: 2022)	100,000,000	14,131,975	100,000,000	14,131,975	Disbursed
India	IFU India Climate Finance Initiative (Committed) (Mitigation) (CRS ID: 2022000102) (Year: 2022)	184,000	26,003	NA	NA	Committed
India	IFU India Climate Finance Initiative (Provided) (Mitigation) (CRS ID: 2022000102) (Year: 2022)	183,800	25,975	183,800	25,975	Disbursed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Committed) (Mitigation) (CRS ID: 2019001205aa) (Year: 2022)	0	0	NA	NA	Committed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Provided) (Mitigation) (CRS ID: 2019001205aa) (Year: 2022)	16,991,721	2,401,266	16,991,721	2,401,266	Disbursed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Committed) (Mitigation) (CRS ID: 2019001205ab) (Year: 2022)	0	0	NA	NA	Committed
India	India-Denmark Energy Partnership (INDEP) 2020-2024 (Provided) (Mitigation) (CRS ID: 2019001205ab) (Year: 2022)	2,224,279	314,335	2,224,279	314,335	Disbursed
India	SSC India DK, Wind Power - Phase I (Committed) (Mitigation) (CRS ID: 2018001224) (Year: 2022)	3,540,200	500,300	NA	NA	Committed
India	SSC India DK, Wind Power - Phase I (Provided) (Mitigation) (CRS ID: 2018001224) (Year: 2022)	3,540,200	500,300	3,540,200	500,300	Disbursed
India	Urban Living Lab India (Committed) (Cross-cutting) (CRS ID: 2019001236) (Year: 2022)	0	0	NA	NA	Committed
India	Urban Living Lab India (Provided) (Cross-cutting) (CRS ID: 2019001236) (Year: 2022)	2,067,735	292,212	2,067,735	292,212	Disbursed
India	Sustainable Urban Water management/Strategic Sector Cooperation project in Udaipur, India (Committed) (Adaptation) (CRS ID: 2018001115) (Year: 2022)	1,308,143	184,866	NA	NA	Committed
India	Sustainable Urban Water management/Strategic Sector Cooperation project in Udaipur, India (Provided) (Adaptation) (CRS ID: 2018001115) (Year: 2022)	1,308,143	184,866	1,308,143	184,866	Disbursed

Table E2(2): Bilateral Support in 2022 (cont.)

(ROW 151-300 OF 622)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency	USD3	Status
India	Satellite Image-derived Water quAlity Research (SI-WAR) - Tapi River (Committed) (Adaptation) (CRS ID: 2020000460) (Year: 2022)	0	0	NA	NA	Committed
India	Satellite Image-derived Water quAlity Research (SI-WAR) - Tapi River (Provided) (Adaptation) (CRS ID: 2020000460) (Year: 2022)	119,445	16,880	119,445	16,880	Disbursed
India	Capacity Building on Decarbonisation, Pollution Control and Promoting Circularity in India (Committed) (Mitigation) (CRS ID: 2021000358) (Year: 2022)	0	0	NA	NA	Committed
India	Capacity Building on Decarbonisation, Pollution Control and Promoting Circularity in India (Provided) (Mitigation) (CRS ID: 2021000358) (Year: 2022)	100,000	14,132	100,000	14,132	Disbursed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Committed) (Mitigation) (CRS ID: 2020000313aa) (Year: 2022)	15,000,000	2,119,796	NA	NA	Committed
Indonesia	Danish Energy Partnership Programme III, INDODEPP (Provided) (Mitigation) (CRS ID: 2020000313aa) (Year: 2022)	17,554,146	2,480,747	17,554,146	2,480,747	Disbursed
Indonesia	Strategic Sector Cooperation in Agriculture and Food Safety Between Denmark and Indonesia, Phase I (Committed) (Cross-cutting) (CRS ID: 2021000046) (Yea	1,040,448	147,036	NA	NA	Committed
Indonesia	Strategic Sector Cooperation in Agriculture and Food Safety Between Denmark and Indonesia, Phase I (Provided) (Cross-cutting) (CRS ID: 2021000046) (Year:	1,040,448	147,036	1,040,448	147,036	Disbursed
Indonesia	SSC in Circular Economy and Solid waste management between Denmark and Indonesia (Committed) (Mitigation) (CRS ID: 2018001156) (Year: 2022)	953,811	134,792	NA	NA	Committed
Indonesia	SSC in Circular Economy and Solid waste management between Denmark and Indonesia (Provided) (Mitigation) (CRS ID: 2018001156) (Year: 2022)	953,811	134,792	953,811	134,792	Disbursed
Indonesia	SSC on Maritime development Between Denmark and Indonesia, Inception phase (Committed) (Cross-cutting) (CRS ID: 2021000194) (Year: 2022)	551,931	77,999	NA	NA	Committed
Indonesia	SSC on Maritime development Between Denmark and Indonesia, Inception phase (Provided) (Cross-cutting) (CRS ID: 2021000194) (Year: 2022)	551,931	77,999	551,931	77,999	Disbursed
Indonesia	Strategic Sector Cooperation on Sustainable Island Initiative (SII) between Denmark and Indonesia (Environment) (Committed) (Mitigation) (CRS ID: 202000009	333,333	47,106	NA	NA	Committed
Indonesia	Strategic Sector Cooperation on Sustainable Island Initiative (SII) between Denmark and Indonesia (Environment) (Provided) (Mitigation) (CRS ID: 2020000097)	333,333	47,106	333,333	47,106	Disbursed
Indonesia	Indonesian Climate Journalist Network (Committed) (Cross-cutting) (CRS ID: 2022000465) (Year: 2022)	499,946	70,652	NA	NA	Committed
Indonesia	Indonesian Climate Journalist Network (Provided) (Cross-cutting) (CRS ID: 2022000465) (Year: 2022)	299,967	42,391	299,967	42,391	Disbursed
Indonesia	Danish-Indonesian Strategic Sector Cooperation on clean energy, renewable energy and energy efficiency (Committed) (Mitigation) (CRS ID: 2015001286) (Yea	227,016	32,082	NA	NA	Committed
Indonesia	Danish-Indonesian Strategic Sector Cooperation on clean energy, renewable energy and energy efficiency (Provided) (Mitigation) (CRS ID: 2015001286) (Year:	227,016	32,082	227,016	32,082	Disbursed
Indonesia	CONSUMINDFUL: Eat Wiser, No Leftover (Committed) (Cross-cutting) (CRS ID: 2022000466) (Year: 2022)	249,961	35,324	NA	NA	Committed
Indonesia	CONSUMINDFUL: Eat Wiser, No Leftover (Provided) (Cross-cutting) (CRS ID: 2022000466) (Year: 2022)	150,000	21,198	150,000	21,198	Disbursed
Indonesia	DBP Tansoputra Asia and Smoke Solution (Committed) (Mitigation) (CRS ID: 2013001134) (Year: 2022)	0	0	NA	NA	Committed
Indonesia	DBP Tansoputra Asia and Smoke Solution (Provided) (Mitigation) (CRS ID: 2013001134) (Year: 2022)	53,600	7,575	53,600	7,575	Disbursed
Indonesia	Refilling Consumer Goods in Labuan Bajo (Committed) (Cross-cutting) (CRS ID: 2021000406) (Year: 2022)	0	0	NA	NA	Committed
Indonesia	Refilling Consumer Goods in Labuan Bajo (Provided) (Cross-cutting) (CRS ID: 2021000406) (Year: 2022)	43,200	6,105	43,200	6,105	Disbursed
Global	Danish Energy Agency Energy Partnership Programme (DEPP) 2020-2025 (Committed) (Mitigation) (CRS ID: 2020000302aa) (Year: 2022)	46,400,000	6,557,236	NA	NA	Committed
Global	Danish Energy Agency Energy Partnership Programme (DEPP) 2020-2025 (Provided) (Mitigation) (CRS ID: 2020000302aa) (Year: 2022)	59,795,834	8,450,332	59,795,834	8,450,332	Disbursed
Global	P4G (Committed) (Cross-cutting) (CRS ID: 2017001335aa) (Year: 2022)	27,500,000	3,886,293	NA	NA	Committed
Global	P4G (Provided) (Cross-cutting) (CRS ID: 2017001335aa) (Year: 2022)	39,780,864	5,621,822	39,780,864	5,621,822	Disbursed
Global	CISU Climate Change Adaptation Modality (CCAM) (Committed) (Adaptation) (CRS ID: 2022000433) (Year: 2022)	57,500,000	8,125,885	NA	NA	Committed
Global	CISU Climate Change Adaptation Modality (CCAM) (Provided) (Adaptation) (CRS ID: 2022000433) (Year: 2022)	30,000,000	4,239,592	30,000,000	4,239,592	Disbursed
Global	DFC Fellowships 2022 (Committed) (Cross-cutting) (CRS ID: 2022000029) (Year: 2022)	30,000,000	4,239,592	NA	NA	Committed
Global	DFC Fellowships 2022 (Provided) (Cross-cutting) (CRS ID: 2022000029) (Year: 2022)	30,000,000	4,239,592	30,000,000	4,239,592	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Cross-cutting) (CRS ID: 2018001073) (Year: 2022)	593,804	83,916	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Cross-cutting) (CRS ID: 2018001073) (Year: 2022)	21,037,486	2,973,012	21,037,486	2,973,012	Disbursed
Global	Global Shield Solutions Platform (Committed) (Adaptation) (CRS ID: 2022000439) (Year: 2022)	35,000,000	4,946,191	NA	NA	Committed
Global	Global Shield Solutions Platform (Provided) (Adaptation) (CRS ID: 2022000439) (Year: 2022)	20,000,000	2,826,395	20,000,000	2,826,395	Disbursed
Global	Catalyzing Private sector Solutions for the SDGs - Partnership with The Sustainable Trade Initiative (IDH) 2022-2025 (Committed) (Cross-cutting) (CRS ID: 2022	40,000,000	5,652,790	NA	NA	Committed
Global	Catalyzing Private sector Solutions for the SDGs - Partnership with The Sustainable Trade Initiative (IDH) 2022-2025 (Provided) (Cross-cutting) (CRS ID: 20220	20,000,000	2,826,395	20,000,000	2,826,395	Disbursed
Global	FFU Windows 1and 2 2020 (Committed) (Cross-cutting) (CRS ID: 2020000389) (Year: 2022)	621,984	87,899	NA	NA	Committed
Global	FFU Windows 1and 2 2020 (Provided) (Cross-cutting) (CRS ID: 2020000389) (Year: 2022)	19,933,303	2,816,969	19,933,303	2,816,969	Disbursed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Committed) (Adaptation) (CRS ID: 2020000315aa) (Year: 2022)	0	0	NA	NA	Committed
Global	Contribution to the International Union for Conservation of Nature (IUCN) 2020-2024 (Provided) (Adaptation) (CRS ID: 2020000315aa) (Year: 2022)	19,914,843	2,814,361	19,914,843	2,814,361	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Adaptation) (CRS ID: 2019001257) (Year: 2022)	190,356	26,901	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Adaptation) (CRS ID: 2019001257) (Year: 2022)	19,325,321	2,731,049	19,325,321	2,731,049	Disbursed
Global	FFU Projects Windows 1 and 2 2017 (Committed) (Cross-cutting) (CRS ID: 2017001318) (Year: 2022)	0	0	NA	NA	Committed
Global	FFU Projects Windows 1 and 2 2017 (Provided) (Cross-cutting) (CRS ID: 2017001318) (Year: 2022)	18,316,243	2,588,447	18,316,243	2,588,447	Disbursed
Global	Support for NDC-Partnership 2020-2022 (Committed) (Cross-cutting) (CRS ID: 2020000480) (Year: 2022)	0	0	NA	NA	Committed
Global	Support for NDC-Partnership 2020-2022 (Provided) (Cross-cutting) (CRS ID: 2020000480) (Year: 2022)	16,800,000	2,374,172	16,800,000	2,374,172	Disbursed
Global	FFU Windows 1 and 2 2021 (Committed) (Cross-cutting) (CRS ID: 2021000312) (Year: 2022)	646,464	91,358	NA	NA	Committed
Global	FFU Windows 1 and 2 2021 (Provided) (Cross-cutting) (CRS ID: 2021000312) (Year: 2022)	15,269,894	2,157,938	15,269,894	2,157,938	Disbursed
Global	IFU Project Development Program (PDP) (Committed) (Cross-cutting) (CRS ID: 2022000405) (Year: 2022)	15,000,000	2,119,796	NA	NA	Committed
Global	IFU Project Development Program (PDP) (Provided) (Cross-cutting) (CRS ID: 2022000405) (Year: 2022)	15,000,000	2,119,796	15,000,000	2,119,796	Disbursed
Global	Support to C40 Business Plan 2020-2024 (Committed) (Cross-cutting) (CRS ID: 2020000172) (Year: 2022)	0	0	NA	NA	Committed
Global	Support to C40 Business Plan 2020-2024 (Provided) (Cross-cutting) (CRS ID: 2020000172) (Year: 2022)	13,900,000	1,964,344	13,900,000	1,964,344	Disbursed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Committed) (Mitigation) (CRS ID: 2019001234) (Year: 20	0	0	NA	NA	Committed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Provided) (Mitigation) (CRS ID: 2019001234) (Year: 2022	6,238,433	881,614	6,238,433	881,614	Disbursed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Committed) (Mitigation) (CRS ID: 2022000015) (Year: 20	3,000,000	423,959	NA	NA	Committed
Global	IISD-GSI support for Fossil Fuel Subsidy Reform and Clean Energy Transition, and BOGA secretariat (Provided) (Mitigation) (CRS ID: 2022000015) (Year: 2022	1,500,000	211,980	1,500,000	211,980	Disbursed
Global	World Resources Institute - Core Funding 2018-2022 (Committed) (Cross-cutting) (CRS ID: 2017001336) (Year: 2022)	7,500,000	1,059,898	NA	NA	Committed
Global	World Resources Institute - Core Funding 2018-2022 (Provided) (Cross-cutting) (CRS ID: 2017001336) (Year: 2022)	7,500,000	1,059,898	7,500,000	1,059,898	Disbursed
Global	The Danish Energy Transition Initiative (DETI) (Committed) (Mitigation) (CRS ID: 2021000024) (Year: 2022)	0	0	NA	NA	Committed
Global	The Danish Energy Transition Initiative (DETI) (Provided) (Mitigation) (CRS ID: 2021000024) (Year: 2022)	6,626,130	936,403	6,626,130	936,403	Disbursed
Global	DSIF - Projektudviklingsfacilitet 2022-2025 (Committed) (Cross-cutting) (CRS ID: 2022000446) (Year: 2022)	12,500,000	1,766,497	NA	NA	Committed
Global	DSIF - Projektudviklingsfacilitet 2022-2025 (Provided) (Cross-cutting) (CRS ID: 2022000446) (Year: 2022)	4,839,600	683,931	4,839,600	683,931	Disbursed
Global	Danish Support to New Climate Economy (NCE) 2020-2022 (Committed) (Cross-cutting) (CRS ID: 2020000455) (Year: 2022)	0	0	NA	NA	Committed
Global	Danish Support to New Climate Economy (NCE) 2020-2022 (Provided) (Cross-cutting) (CRS ID: 2020000455) (Year: 2022)	4,836,375	683,475	4,836,375	683,475	Disbursed
Global	Danish Support to SEforALL 2021–2023 (Committed) (Mitigation) (CRS ID: 2021000361) (Year: 2022)	0	0	NA	NA	Committed
Global	Danish Support to SEforALL 2021–2023 (Provided) (Mitigation) (CRS ID: 2021000361) (Year: 2022)	3,790,000	535,602	3,790,000	535,602	Disbursed
Global	International Peace Institute (IPI) -general contribution (Committed) (Mitigation) (CRS ID: 2021000372) (Year: 2022)	0	0	NA	NA	Committed
Global	International Peace Institute (IPI) -general contribution (Provided) (Mitigation) (CRS ID: 2021000372) (Year: 2022)	1,750,000	247,310	1,750,000	247,310	Disbursed
Global	DSIF - Project Development Facility (Committed) (Mitigation) (CRS ID: 2017001247) (Year: 2022)	0	0	NA	NA	Committed
Global	DSIF - Project Development Facility (Provided) (Mitigation) (CRS ID: 2017001247) (Year: 2022)	1,750,000	247,310	1,750,000	247,310	Disbursed
Global	Contribution to Adelphi 2021-2023 (Committed) (Adaptation) (CRS ID: 2020000456) (Year: 2022)	0	0	NA	NA	Committed
Global	Contribution to Adelphi 2021-2023 (Provided) (Adaptation) (CRS ID: 2020000456) (Year: 2022)	1,000,000	141,320	1,000,000	141,320	Disbursed
Global	Accelerating Youth Engagement on the Energy Transition in ODA recipient countries (Committed) (Mitigation) (CRS ID: 2020000360) (Year: 2022)	0	0	NA	NA	Committed
Global	Accelerating Youth Engagement on the Energy Transition in ODA recipient countries (Provided) (Mitigation) (CRS ID: 2020000360) (Year: 2022)	1,000,000	141,320	1,000,000	141,320	Disbursed
Global	Earmarked contribution to ASEF 2019-2022 (Committed) (Cross-cutting) (CRS ID: 2019001266) (Year: 2022)	0	0	NA	NA	Committed
Global	Earmarked contribution to ASEF 2019-2022 (Provided) (Cross-cutting) (CRS ID: 2019001266) (Year: 2022)	927,900	131,131	927,900	131,131	Disbursed
Global	Identification and formulation of a new Climate Partnerships and Private Sector Support Programme 2022-2025 (Committed) (Cross-cutting) (CRS ID: 20210002	0	0	NA	NA	Committed
Global	Identification and formulation of a new Climate Partnerships and Private Sector Support Programme 2022-2025 (Provided) (Cross-cutting) (CRS ID: 202100026	558,185	78,883	558,185	78,883	Disbursed
Global	Wadadli Action Platform (Committed) (Cross-cutting) (CRS ID: 2022000222) (Year: 2022)	500,000	70,660	NA	NA	Committed
Global	Wadadli Action Platform (Provided) (Cross-cutting) (CRS ID: 2022000222) (Year: 2022)	500,000	70,660	500,000	70,660	Disbursed
Global	Peterson Institute for International Economics Partnership 2020-2022 (Committed) (Mitigation) (CRS ID: 2020000439) (Year: 2022)	0	0	NA	NA	Committed
Global	Peterson Institute for International Economics Partnership 2020-2022 (Provided) (Mitigation) (CRS ID: 2020000439) (Year: 2022)	500,000	70,660	500,000	70,660	Disbursed
Global	Brookings Institution Partnership 2021-2024 (Committed) (Cross-cutting) (CRS ID: 2021000293) (Year: 2022)	0	0	NA	NA	Committed
Global	Brookings Institution Partnership 2021-2024 (Provided) (Cross-cutting) (CRS ID: 2021000293) (Year: 2022)	500,000	70,660	500,000	70,660	Disbursed
Global	IFU SDG Investment Fund (Verdensmålsfonden) (Committed) (Mitigation) (CRS ID: 2017001182) (Year: 2022)	0	0	NA	NA	Committed
Global	IFU SDG Investment Fund (Verdensmålsfonden) (Provided) (Mitigation) (CRS ID: 2017001182) (Year: 2022)	499,750	70,625	499,750	70,625	Disbursed
Global	Redesigning Recycling for Development (Committed) (Cross-cutting) (CRS ID: 2020000279) (Year: 2022)	0	0	NA	NA	Committed
Global	Redesigning Recycling for Development (Provided) (Cross-cutting) (CRS ID: 2020000279) (Year: 2022)	341,660	48,283	341,660	48,283	Disbursed
Global	Africa Adaptation Acceleration Program (AAAP) 2022-2026 - Process consultancy for preparation and programme formulation (Committed) (Adaptation) (CRS ID	255,938	36,165	NA	NA	Committed
Global	Africa Adaptation Acceleration Program (AAAP) 2022-2026 - Process consultancy for preparation and programme formulation (Provided) (Adaptation) (CRS ID:	255,752	36,143	255,752	36,143	Disbursed
Global	Research projects/FFU incl. pilot projects from 2008. South and North driven from 2013 (Committed) (Cross-cutting) (CRS ID: 2014001184) (Year: 2022)	0	0	NA	NA	Committed
Global	Research projects/FFU incl. pilot projects from 2008. South and North driven from 2013 (Provided) (Cross-cutting) (CRS ID: 2014001184) (Year: 2022)	250,000	35,330	250,000	35,330	Disbursed
Global	CSIS Partnership 2019-2022 (Committed) (Cross-cutting) (CRS ID: 2019001170) (Year: 2022)	0	0	NA	NA	Committed
Global	CSIS Partnership 2019-2022 (Provided) (Cross-cutting) (CRS ID: 2019001170) (Year: 2022)	250,000	35,330	250,000	35,330	Disbursed
Global	GIWPS Partnership 2022-2024 (Committed) (Adaptation) (CRS ID: 2022000428) (Year: 2022)	1,000,000	141,320	NA	NA	Committed
Global	GIWPS Partnership 2022-2024 (Provided) (Adaptation) (CRS ID: 2022000428) (Year: 2022)	250,000	35,330	250,000	35,330	Disbursed
Global	UN Decade on Ecosystem Restoration - consultancy (Committed) (Adaptation) (CRS ID: 20220000097) (Year: 2022)	247,000	34,906	NA	NA	Committed
Global	UN Decade on Ecosystem Restoration - consultancy (Provided) (Adaptation) (CRS ID: 2022000097) (Year: 2022)	247,000	34,906	247,000	34,906	Disbursed
Global	Consultancy to develop NbS pipeline (Committed) (Adaptation) (CRS ID: 2022000016) (Year: 2022)	240,000	33,917	NA	NA	Committed
Global	Consultancy to develop NbS pipeline (Provided) (Adaptation) (CRS ID: 2022000016) (Year: 2022)	240,000	33,917	240,000	33,917	Disbursed
Global	Formulation of Danish Support to UNCDF Local Climate Adaptive Living Facility (Committed) (Adaptation) (CRS ID: 2022000020) (Year: 2022)	237,182	33,518	NA	NA	Committed
Global	Formulation of Danish Support to UNCDF Local Climate Adaptive Living Facility (Provided) (Adaptation) (CRS ID: 2022000020) (Year: 2022)	235,068	33,220	235,068	33,220	Disbursed
Global	Formulation of support to Climate Investment Funds, ACCELERATING COAL TRANSITION INVESTMENT PROGRAM (Committed) (Mitigation) (CRS ID: 2022000	232,500	32,857	NA	NA	Committed
Global	Formulation of support to Climate Investment Funds, ACCELERATING COAL TRANSITION INVESTMENT PROGRAM (Provided) (Mitigation) (CRS ID: 2022000	232,500	32,857	232,500	32,857	Disbursed
Global	IDH Identification and Formulation - Contract (Committed) (Cross-cutting) (CRS ID: 2021000204) (Year: 2022)	19,900	2,812	NA	NA	Committed
Global	IDH Identification and Formulation - Contract (Provided) (Cross-cutting) (CRS ID: 2021000204) (Year: 2022)	218,900	30,935	218,900	30,935	Disbursed
Global	Appraisal of Denmark's Support to Climate Investment Fund's Accelerating Coal Transition (ACT) Investment Program (Committed) (Mitigation) (CRS ID: 20220	198,100	27,995	NA	NA	Committed
Global	Appraisal of Denmark's Support to Climate Investment Fund's Accelerating Coal Transition (ACT) Investment Program (Provided) (Mitigation) (CRS ID: 2022000	197,600	27,925	197,600	27,925	Disbursed
Global	Midterm Review of Organisation Strategy for Denmark's engagement with Green Climate Fund (GCF) 2021-2023 (Committed) (Cross-cutting) (CRS ID: 2022000	178,720	25,257	NA	NA	Committed
Global	Midterm Review of Organisation Strategy for Denmark's engagement with Green Climate Fund (GCF) 2021-2023 (Provided) (Cross-cutting) (CRS ID: 2022000	178,720	25,257	178,720	25,257	Disbursed
Global	IEA 7th Annual Global Conference on Energy Efficiency 7-9 June 2022 (Committed) (Cross-cutting) (CRS ID: 2022000144) (Year: 2022)	172,850	24,427	NA	NA	Committed
Global	IEA 7th Annual Global Conference on Energy Efficiency 7-9 June 2022 (Provided) (Cross-cutting) (CRS ID: 2022000144) (Year: 2022)	172,850	24,427	172,850	24,427	Disbursed
Global	Appraisal of MYNSAM 2.0 framework with Ministry of Food, Agriculture and Fisheries (Committed) (Mitigation) (CRS ID: 2022000127) (Year: 2022)	171,800	24,279	NA	NA	Committed
Global	Appraisal of MYNSAM 2.0 framework with Ministry of Food, Agriculture and Fisheries (Provided) (Mitigation) (CRS ID: 2022000127) (Year: 2022)	171,800	24,279	171,800	24,279	Disbursed
Global	Consultant for appraisal of support to the MPTF for the UN Decade on Ecosystem Restoration (Committed) (Adaptation) (CRS ID: 2022000183) (Year: 2022)	172,400	24,364	NA	NA	Committed
Global	Consultant for appraisal of support to the MPTF for the UN Decade on Ecosystem Restoration (Provided) (Adaptation) (CRS ID: 2022000183) (Year: 2022)	171,400	24,222	171,400	24,222	Disbursed
Global	SSC Framework Programme with City of Aarhus 2023-2026 (Committed) (Adaptation) (CRS ID: 2022000066) (Year: 2022)	222,700	31,472	NA	NA	Committed
Global	SSC Framework Programme with City of Aarhus 2023-2026 (Provided) (Adaptation) (CRS ID: 2022000066) (Year: 2022)	168,000	23,742	168,000	23,742	Disbursed
Global	DMDP - Management Support Consultant NCG (Committed) (Cross-cutting) (CRS ID: 2021000305) (Year: 2022)	0	0	NA	NA	Committed
Global	DMDP - Management Support Consultant NCG (Provided) (Cross-cutting) (CRS ID: 2021000305) (Year: 2022)	162,413	22,952	162,413	22,952	Disbursed
Global	Appraisal of Danish Support to the UNEP Copenhagen Climate Centre (2022-2025) (Committed) (Mitigation) (CRS ID: 2022000167) (Year: 2022)	180,500	25,508	NA	NA	Committed
Global	Appraisal of Danish Support to the UNEP Copenhagen Climate Centre (2022-2025) (Provided) (Mitigation) (CRS ID: 2022000167) (Year: 2022)	150,300	21,240	150,300	21,240	Disbursed
Global	Appraisal of Danish Support to the Strategic Sector Cooperation Framework programme with the Municipality of Aarhus (2023-2026) (Committed) (Adaptation) (	154,100	21,777	NA	NA	Committed
Global	Appraisal of Danish Support to the Strategic Sector Cooperation Framework programme with the Municipality of Aarhus (2023-2026) (Provided) (Adaptation) (C	144,898	20,477	144,898	20,477	Disbursed
Global	Appraisal of Danish Support to UNCDF LoCAL (Committed) (Adaptation) (CRS ID: 2022000181) (Year: 2022)	126,100	17,820	NA	NA	Committed
Global	Appraisal of Danish Support to UNCDF LoCAL (Provided) (Adaptation) (CRS ID: 2022000181) (Year: 2022)	126,000	17,806	126,000	17,806	Disbursed
Global	Formulation of Danida Sustainable Infrastructure Finance (DSIF) Projekt development facility (PDF) programme document (Committed) (Cross-cutting) (CRS ID	121,450	17,163	NA	NA	Committed
Global	Formulation of Danida Sustainable Infrastructure Finance (DSIF) Projekt development facility (PDF) programme document (Provided) (Cross-cutting) (CRS ID:	125,788	17,776	125,788	17,776	Disbursed
Global	Appraisal of WRI grant 2023-2027 project document (Committed) (Cross-cutting) (CRS ID: 2022000256) (Year: 2022)	399,400	56,443	NA	NA	Committed
Global	Appraisal of WRI grant 2023-2027 project document (Provided) (Cross-cutting) (CRS ID: 2022000256) (Year: 2022)	119,820	16,933	119,820	16,933	Disbursed
Global	Technical support to development partners within the portfolio addressing climate change (Committed) (Cross-cutting) (CRS ID: 2021000254) (Year: 2022)	0	0	NA	NA	Committed
Global	Technical support to development partners within the portfolio addressing climate change (Provided) (Cross-cutting) (CRS ID: 2021000254) (Year: 2022)	119,000	16,817	119,000	16,817	Disbursed
Global	Technical support to development partners within the portfolio addressing climate change (Committed) (Cross-cutting) (CRS ID: 2022000218) (Year: 2022)	124,125	17,541	NA	NA	Committed
Global	Technical support to development partners within the portfolio addressing climate change (Provided) (Cross-cutting) (CRS ID: 2022000218) (Year: 2022)	0	0	0	0	Disbursed
Global	TA quality assurance of Rio markers and input the annual reporting (Committed) (Cross-cutting) (CRS ID: 2021000140) (Year: 2022)	216,500	30,596	NA	NA	Committed
Global	TA quality assurance of Rio markers and input the annual reporting (Provided) (Cross-cutting) (CRS ID: 2021000140) (Year: 2022)	108,250	15,298	108,250	15,298	Disbursed
Global	Programformulering af ny bevilling til InsuResilience Global Partnership samt V20 fond (Committed) (Cross-cutting) (CRS ID: 2022000305) (Year: 2022)	139,250	19,679	NA	NA	Committed
Global	Programformulering af ny bevilling til InsuResilience Global Partnership samt V20 fond (Provided) (Cross-cutting) (CRS ID: 2022000305) (Year: 2022)	99,750	14,097	99,750	14,097	Disbursed
Global	Identification and Scoping of potential GSWP and CIWA (Committed) (Adaptation) (CRS ID: 2021000385) (Year: 2022)	0	0	NA	NA	Committed
Global	Identification and Scoping of potential GSWP and CIWA (Provided) (Adaptation) (CRS ID: 2021000385) (Year: 2022)	83,250	11,765	83,250	11,765	Disbursed
Global	Support to operationalising the governance structure in MYNSAM 2.0 (Committed) (Mitigation) (CRS ID: 2022000240) (Year: 2022)	238,000	33,634	NA	NA	Committed
Global	Support to operationalising the governance structure in MYNSAM 2.0 (Provided) (Mitigation) (CRS ID: 2022000240) (Year: 2022)	71,400	10,090	71,400	10,090	Disbursed
Global	Translation and editing of how-to notes (Committed) (Cross-cutting) (CRS ID: 2022000128) (Year: 2022)	67,500	9,539	NA	NA	Committed
Global	Translation and editing of how-to notes (Provided) (Cross-cutting) (CRS ID: 2022000128) (Year: 2022)	67,200	9,497	67,200	9,497	Disbursed
Global	Desk Appraisal of Danish Support to the Indonesia Mangroves for Coastal Resilience Project (Committed) (Cross-cutting) (CRS ID: 2022000004) (Year: 2022)	61,900	8,748	NA	NA	Committed
Global	Desk Appraisal of Danish Support to the Indonesia Mangroves for Coastal Resilience Project (Provided) (Cross-cutting) (CRS ID: 2022000004) (Year: 2022)	61,900	8,748	61,900	8,748	Disbursed
Global	Loss and damage Conference (Committed) (Adaptation) (CRS ID: 2022000475) (Year: 2022)	50,000	7,066	NA	NA	Committed
Global	Loss and damage Conference (Provided) (Adaptation) (CRS ID: 2022000475) (Year: 2022)	50,000	7,066	50,000	7,066	Disbursed

Table E2(2): Bilateral Support in 2022 (cont.)

(ROW 301-450 OF 622)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency	USD3	Status
Global	Formulation of PDP programme document (Committed) (Cross-cutting) (CRS ID: 2022000242) (Year: 2022)	117,250	16,570	NA	NA	Committed
Global	Formulation of PDP programme document (Provided) (Cross-cutting) (CRS ID: 2022000242) (Year: 2022)	34,200	4,833	34,200	4,833	Disbursed
Global	DGBP-2022. Partnership for Green and Productive Dairy in Nigeria (Committed) (Mitigation) (CRS ID: 2022000448) (Year: 2022)	7,500,000	1,059,898	NA	NA	Committed
Global	DGBP-2022. Partnership for Green and Productive Dairy in Nigeria (Provided) (Mitigation) (CRS ID: 2022000448) (Year: 2022)	0	0	0	0	Disbursed
Global	DGBP 2022. Above and beyond: Raising the social and environmental bar for impacts from sustainable sourcing of cocoa in Ghana (Committed) (Adaptation) ((	7,000,000	989,238	NA	NA	Committed
Global	DGBP 2022. Above and beyond: Raising the social and environmental bar for impacts from sustainable sourcing of cocoa in Ghana (Provided) (Adaptation) (CF	0	0	0	0	Disbursed
Global	DGBP 2022. Enhancing irrigation to improve climate adaptation and sustain small holder production systems in Uganda (Committed) (Adaptation) (CRS ID: 202	7,435,120	1,050,729	NA	NA	Committed
Global	DGBP 2022. Enhancing irrigation to improve climate adaptation and sustain small holder production systems in Uganda (Provided) (Adaptation) (CRS ID: 2022	0	0	0	0	Disbursed
Global	DGBP 2022. Ripening of the Vanilla and Cocoa Value Chains of Western Uganda (Committed) (Adaptation) (CRS ID: 2022000487) (Year: 2022)	743,344	105,049	NA	NA	Committed
Global	DGBP 2022. Ripening of the Vanilla and Cocoa Value Chains of Western Uganda (Provided) (Adaptation) (CRS ID: 2022000487) (Year: 2022)	0	0	0	0	Disbursed
Global	DGBP 2022. Enhancing transition to green and sustainable economic growth in Palestine (Committed) (Cross-cutting) (CRS ID: 2022000440) (Year: 2022)	750,000	105,990	NA	NA	Committed
Global	DGBP 2022. Enhancing transition to green and sustainable economic growth in Palestine (Provided) (Cross-cutting) (CRS ID: 2022000440) (Year: 2022)	0	0	0	0	Disbursed
Global	Appraisal of project document for Danish support to IRENA 2023-27 (Committed) (Mitigation) (CRS ID: 2022000382) (Year: 2022)	248,800	35,160	NA	NA	Committed
Global	Appraisal of project document for Danish support to IRENA 2023-27 (Provided) (Mitigation) (CRS ID: 2022000382) (Year: 2022)	0	0	0	0	Disbursed
Global	DGBP 2022. Green Production Landscape (GPL), Singida region in Tanzania. (Committed) (Cross-cutting) (CRS ID: 2022000481) (Year: 2022)	6,626,000	936,385	NA	NA	Committed
Global	DGBP 2022. Green Production Landscape (GPL), Singida region in Tanzania. (Provided) (Cross-cutting) (CRS ID: 2022000481) (Year: 2022)	0	0	0	0	Disbursed
Global	Consultancy service for EU-agreements regarding development cooperation (Committed) (Adaptation) (CRS ID: 2022000351) (Year: 2022)	250,000	35,330	NA	NA	Committed
Global	Consultancy service for EU-agreements regarding development cooperation (Provided) (Adaptation) (CRS ID: 2022000351) (Year: 2022)	0	0	0	0	Disbursed
Global	Consultancy: Analysis of the next generation of country partnerships: The role of the World Bank (Committed) (Cross-cutting) (CRS ID: 2022000112) (Year: 202	249,926	35,320	NA	NA	Committed
Global	Consultancy: Analysis of the next generation of country partnerships: The role of the World Bank (Provided) (Cross-cutting) (CRS ID: 2022000112) (Year: 2022	0	0	0	0	Disbursed
Global	Danish Support to IRENA 2023 – 2027: Process consultancy for preparation and programme formulation (Committed) (Mitigation) (CRS ID: 2022000061) (Year:	178,300	25,197	NA	NA	Committed
Global	Danish Support to IRENA 2023 – 2027: Process consultancy for preparation and programme formulation (Provided) (Mitigation) (CRS ID: 2022000061) (Year: 2(	0	0	0	0	Disbursed
Global	DGBP 2022. WaterStarters: Creating climate-smart, financially sustainable water solutions for improved livelihoods in Kenya (Committed) (Adaptation) (CRS ID:	1,500,000	211,980	NA	NA	Committed
Global	DGBP 2022. WaterStarters: Creating climate-smart, financially sustainable water solutions for improved livelihoods in Kenya (Provided) (Adaptation) (CRS ID: 2	0	0	0	0	Disbursed
Global	DGBP 2022. Powering the uptake of climate change Mitigating Pumps. Uganda. (Committed) (Adaptation) (CRS ID: 2022000443) (Year: 2022)	13,900,000	1,964,344	NA	NA	Committed
Global	DGBP 2022. Powering the uptake of climate change Mitigating Pumps. Uganda. (Provided) (Adaptation) (CRS ID: 2022000443) (Year: 2022)	0	0	0	0	Disbursed
Global	CCDMP 2021-2025: technical reviews, a potential extension of Monitoring Evaluation, Accountability and Learning (MEAL) (Committed) (Adaptation) (CRS ID: 2(	6,000,000	847,918	NA	NA	Committed
Global	CCDMP 2021-2025: technical reviews, a potential extension of Monitoring Evaluation, Accountability and Learning (MEAL) (Provided) (Adaptation) (CRS ID: 202	0	0	0	0	Disbursed
Global	Support to the preparation of input from Denmark to the Board and Councils for GCF, GEF and LDCF (Committed) (Cross-cutting) (CRS ID: 2022000123) (Yea	964,500	136,303	NA	NA	Committed
Global	Support to the preparation of input from Denmark to the Board and Councils for GCF, GEF and LDCF (Provided) (Cross-cutting) (CRS ID: 2022000123) (Year:	0	0	0	0	Disbursed
Global	DGBP 2022. Prosperous Farmers and Forests Partnership. Vietnam. (Committed) (Adaptation) (CRS ID: 2022000447) (Year: 2022)	14,000,000	1,978,476	NA	NA	Committed
Global	DGBP 2022. Prosperous Farmers and Forests Partnership. Vietnam. (Provided) (Adaptation) (CRS ID: 2022000447) (Year: 2022)	0	0	0	0	Disbursed
Global	DGBP 2022. Circular economy based on the usage of waste plastic on road production. Colombia (Committed) (Mitigation) (CRS ID: 2022000489) (Year: 2022)	746,096	105,438	NA	NA	Committed
Global	DGBP 2022. Circular economy based on the usage of waste plastic on road production. Colombia (Provided) (Mitigation) (CRS ID: 2022000489) (Year: 2022)	0	0	0	0	Disbursed
Global	Consultancy for formulation of support for WRI 2023-2027 (Committed) (Cross-cutting) (CRS ID: 2022000115) (Year: 2022)	361,040	51,022	NA	NA	Committed
Global	Consultancy for formulation of support for WRI 2023-2027 (Provided) (Cross-cutting) (CRS ID: 2022000115) (Year: 2022)	0	0	0	0	Disbursed
Global	Proceskonsulent til formulering af Rammeaftale med Energistyrelsen under MynSam 2.0 (Committed) (Adaptation) (CRS ID: 2022000245) (Year: 2022)	243,000	34,341	NA	NA	Committed
Global	Proceskonsulent til formulering af Rammeaftale med Energistyrelsen under MynSam 2.0 (Provided) (Adaptation) (CRS ID: 2022000245) (Year: 2022)	0	0	0	0	Disbursed
Global	Analysis of public financing instruments and how they can support Danish companies contributing to the SDGs and the Paris Agreement in dev. countries (Cor	115,200	16,280	NA	NA	Committed
Global	Analysis of public financing instruments and how they can support Danish companies contributing to the SDGs and the Paris Agreement in dev. countries (Pro	0	0	0	0	Disbursed
Global	Appraisal of Danish support to the World Bank Trust Fund 'Food Systems 2030' (Committed) (Cross-cutting) (CRS ID: 2022000206) (Year: 2022)	85,500	12,083	NA	NA	Committed
Global	Appraisal of Danish support to the World Bank Trust Fund 'Food Systems 2030' (Provided) (Cross-cutting) (CRS ID: 2022000206) (Year: 2022)	0	0	0	0	Disbursed
Global	DGBP 2022. Reducing food loss and waste through green cold chain solutions for farmers and traders in Kenya (Committed) (Mitigation) (CRS ID: 2022000482	5,280,000	746,168	NA	NA	Committed
Global	DGBP 2022. Reducing food loss and waste through green cold chain solutions for farmers and traders in Kenya (Provided) (Mitigation) (CRS ID: 2022000482) (	0	0	0	0	Disbursed
Global	DGBP 2022. Inclusive CO2 sequestration in the Kenyan nut industry, Kenya (Committed) (Mitigation) (CRS ID: 2022000488) (Year: 2022)	1,429,000	201,946	NA	NA	Committed
Global	DGBP 2022. Inclusive CO2 sequestration in the Kenyan nut industry, Kenya (Provided) (Mitigation) (CRS ID: 2022000488) (Year: 2022)	0	0	0	0	Disbursed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Committed) (Adaptation) (CRS ID: 2020000431aa) (Year: 2022)	0	0	NA	NA	Committed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Provided) (Adaptation) (CRS ID: 2020000431aa) (Year: 2022)	7,539,200	1,065,438	7,539,200	1,065,438	Disbursed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Committed) (Mitigation) (CRS ID: 2020000431ad) (Year: 2022)	0	0	NA	NA	Committed
Kenya	Kenya bilateral programme - green, sustainable and inclusive growth (Provided) (Mitigation) (CRS ID: 2020000431ad) (Year: 2022)	14,106,644	1,993,547	14,106,644	1,993,547	Disbursed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Committed) (Adaptation) (CRS ID: 2020000384) (Year: 2022)	0	0	NA	NA	Committed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Provided) (Adaptation) (CRS ID: 2020000384) (Year: 2022)	6,705,811	947,664	6,705,811	947,664	Disbursed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Committed) (Adaptation) (CRS ID: 2022000348) (Year: 2022)	35,000,000	4,946,191	NA	NA	Committed
Kenya	Northern Rangelands Trust: Resilient Communities and Natural Resources (Provided) (Adaptation) (CRS ID: 2022000348) (Year: 2022)	6,261,590	884,886	6,261,590	884,886	Disbursed
Kenya	DSIF - Kenya - Thika-Githunguri Water Supply and Sanitation Project (Committed) (Cross-cutting) (CRS ID: 2020020025) (Year: 2022)	5,000,000	706,599	NA	NA	Committed
Kenya	DSIF - Kenya - Thika-Githunguri Water Supply and Sanitation Project (Provided) (Cross-cutting) (CRS ID: 2020020025) (Year: 2022)	5,000,000	706,599	5,000,000	706,599	Disbursed
Kenya	Future-Proofing Jobs in Kenya's Building Industry (Committed) (Mitigation) (CRS ID: 2020000356) (Year: 2022)	0	0	NA	NA	Committed
Kenya	Future-Proofing Jobs in Kenya's Building Industry (Provided) (Mitigation) (CRS ID: 2020000356) (Year: 2022)	3,103,010	438,517	3,103,010	438,517	Disbursed
Kenya	DMDP 2020 – Fair Recycling: an inclusive and formalised plastic recycling ecosystem in Kenya (Committed) (Mitigation) (CRS ID: 2020000464) (Year: 2022)	0	0	NA	NA	Committed
Kenya	DMDP 2020 – Fair Recycling: an inclusive and formalised plastic recycling ecosystem in Kenya (Provided) (Mitigation) (CRS ID: 2020000464) (Year: 2022)	2,790,500	394,353	2,790,500	394,353	Disbursed
Kenya	DMDP 2019 -Agri-tech Solutions for Climate Resilience and Financial Inclusion of Smallholders in Kenya (Committed) (Adaptation) (CRS ID: 2019001177) (Yea	0	0	NA	NA	Committed
Kenya	DMDP 2019 -Agri-tech Solutions for Climate Resilience and Financial Inclusion of Smallholders in Kenya (Provided) (Adaptation) (CRS ID: 2019001177) (Year:	2,500,000	353,299	2,500,000	353,299	Disbursed
Kenya	Kenya. Strategic Sector Cooperation on energy (Committed) (Mitigation) (CRS ID: 2022000033) (Year: 2022)	1,400,952	197,982	NA	NA	Committed
Kenya	Kenya. Strategic Sector Cooperation on energy (Provided) (Mitigation) (CRS ID: 2022000033) (Year: 2022)	1,400,952	197,982	1,400,952	197,982	Disbursed
Kenya	Strategic Sector Cooperation Phase 1 Kenya Energy (Committed) (Mitigation) (CRS ID: 2022000327) (Year: 2022)	1,157,980	163,645	NA	NA	Committed
Kenya	Strategic Sector Cooperation Phase 1 Kenya Energy (Provided) (Mitigation) (CRS ID: 2022000327) (Year: 2022)	1,157,980	163,645	1,157,980	163,645	Disbursed
Kenya	DMDP 2016 – Enhancing crop yield and profitability in Kenya through biological plant protection (Committed) (Adaptation) (CRS ID: 2016001214) (Year: 2022)	0	0	NA	NA	Committed
Kenya	DMDP 2016 – Enhancing crop yield and profitability in Kenya through biological plant protection (Provided) (Adaptation) (CRS ID: 2016001214) (Year: 2022)	687,500	97,157	687,500	97,157	Disbursed
Kenya	DMDP 2019 – Solar cooling for reduced food loss, job and income opportunities among smallholders in Kenya (Committed) (Mitigation) (CRS ID: 2019001184) (	0	0	NA	NA	Committed
Kenya	DMDP 2019 – Solar cooling for reduced food loss, job and income opportunities among smallholders in Kenya (Provided) (Mitigation) (CRS ID: 2019001184) (Y	625,000	88,325	625,000	88,325	Disbursed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Committed) (Cross-cutting) (CRS ID: 2015001217ab) (Year: 2022)	1,634,273	230,955	NA	NA	Committed
Kenya	Thematic Programme Green Growth & Employment - Kenya CP 2016-2020 (Provided) (Cross-cutting) (CRS ID: 2015001217ab) (Year: 2022)	246,111	34,780	246,111	34,780	Disbursed
Kenya	Appraisal of Inclusive Refugee Response Programme, Kenya (Committed) (Cross-cutting) (CRS ID: 2022000232) (Year: 2022)	119,742	16,922	NA	NA	Committed
Kenya	Appraisal of Inclusive Refugee Response Programme, Kenya (Provided) (Cross-cutting) (CRS ID: 2022000232) (Year: 2022)	113,349	16,018	113,349	16,018	Disbursed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Committed) (Adaptation) (CRS ID: 2017001258) (Year: 2022	0	0	NA	NA	Committed
Kenya	Water and Livelihoods Programme in Refugee, Host and Other Vulnerable Communities of Kenya (Provided) (Adaptation) (CRS ID: 2017001258) (Year: 2022)	15,843	2,239	15,843	2,239	Disbursed
Mali	Climate Change Adaptation and Stability in Fragile Border Areas of Mali - PATRIP Foundation (Committed) (Adaptation) (CRS ID: 2020000471) (Year: 2022)	0	0	NA	NA	Committed
Mali	Climate Change Adaptation and Stability in Fragile Border Areas of Mali - PATRIP Foundation (Provided) (Adaptation) (CRS ID: 2020000471) (Year: 2022)	17,875,000	2,526,090	17,875,000	2,526,090	Disbursed
Mali	Mali Sustainable Urban Water Programme (Committed) (Cross-cutting) (CRS ID: 2021000323aa) (Year: 2022)	0	0	NA	NA	Committed
Mali	Mali Sustainable Urban Water Programme (Provided) (Cross-cutting) (CRS ID: 2021000323aa) (Year: 2022)	220,400	31,147	220,400	31,147	Disbursed
Mali	Green Diplomacy and Climate wish to tender for Appraisal of Urban Water Supply Programme 2022-2026 - Mali (Committed) (Adaptation) (CRS ID: 202100016	0	0	NA	NA	Committed
Mali	Green Diplomacy and Climate wish to tender for Appraisal of Urban Water Supply Programme 2022-2026 - Mali (Provided) (Adaptation) (CRS ID: 2021000162)	70,049	9,899	70,049	9,899	Disbursed
Myanmar	Country Programme 2016-2020. ISEG Thematic Programme: Inclusive and Sustainable Economic Growth (Committed) (Mitigation) (CRS ID: 2016001190ac) (Ye	0	0	NA	NA	Committed
Myanmar	Country Programme 2016-2020. ISEG Thematic Programme: Inclusive and Sustainable Economic Growth (Provided) (Mitigation) (CRS ID: 2016001190ac) (Yea	5,273,237	745,212	5,273,237	745,212	Disbursed
Niger	Strengthening the Resilience of the Populations of the Zinder Region to Climate Risks (Committed) (Adaptation) (CRS ID: 2020000375) (Year: 2022)	0	0	NA	NA	Committed
Niger	Strengthening the Resilience of the Populations of the Zinder Region to Climate Risks (Provided) (Adaptation) (CRS ID: 2020000375) (Year: 2022)	3,294,561	465,587	3,294,561	465,587	Disbursed
Niger	Supporting Biodigester Sector for Green Jobs and Income Generation (Committed) (Adaptation) (CRS ID: 2020000368) (Year: 2022)	0	0	NA	NA	Committed
Niger	Supporting Biodigester Sector for Green Jobs and Income Generation (Provided) (Adaptation) (CRS ID: 2020000368) (Year: 2022)	3,019,942	426,777	3,019,942	426,777	Disbursed
Nigeria	DMDP 2016 – Milky Way Partnership Nigeria – market driven sustainable growth in the dairy value chain (Committed) (Adaptation) (CRS ID: 2016001204) (Year	0	0	NA	NA	Committed
Nigeria	DMDP 2016 – Milky Way Partnership Nigeria – market driven sustainable growth in the dairy value chain (Provided) (Adaptation) (CRS ID: 2016001204) (Year: 2	442,500	62,534	442,500	62,534	Disbursed
Nigeria	Nigeria Food Safety (Committed) (Cross-cutting) (CRS ID: 2020002099) (Year: 2022)	250,476	35,397	NA	NA	Committed
Nigeria	Nigeria Food Safety (Provided) (Cross-cutting) (CRS ID: 2020002099) (Year: 2022)	250,476	35,397	250,476	35,397	Disbursed
Nigeria	DAMAU COOPERATIVE (NGA) (Committed) (Mitigation) (CRS ID: 2021000288) (Year: 2022)	0	0	NA	NA	Committed
Nigeria	DAMAU COOPERATIVE (NGA) (Provided) (Mitigation) (CRS ID: 2021000288) (Year: 2022)	247,629	34,995	247,629	34,995	Disbursed
Nigeria	SF4SM - School Food Project (NGA) (Committed) (Mitigation) (CRS ID: 2021000289) (Year: 2022)	0	0	NA	NA	Committed
Nigeria	SF4SM - School Food Project (NGA) (Provided) (Mitigation) (CRS ID: 2021000289) (Year: 2022)	198,972	28,119	198,972	28,119	Disbursed
Nigeria	We Are! Climate Justice Campaign in Nigeria (Committed) (Cross-cutting) (CRS ID: 2022000226) (Year: 2022)	250,000	35,330	NA	NA	Committed
Nigeria	We Are! Climate Justice Campaign in Nigeria (Provided) (Cross-cutting) (CRS ID: 2022000226) (Year: 2022)	150,000	21,198	150,000	21,198	Disbursed
Pakistan	DSIF - Pakistan - Faisalabad Wastewater Treatment Plant Project (Committed) (Mitigation) (CRS ID: 2019001206) (Year: 2022)	3,494,657	493,864	NA	NA	Committed
Pakistan	DSIF - Pakistan - Faisalabad Wastewater Treatment Plant Project (Provided) (Mitigation) (CRS ID: 2019001206) (Year: 2022)	3,494,657	493,864	3,494,657	493,864	Disbursed
Pakistan	Advocacy on Climate Change & Green Transition (Committed) (Cross-cutting) (CRS ID: 2020000059) (Year: 2022)	0	0	NA	NA	Committed
Pakistan	Advocacy on Climate Change & Green Transition (Provided) (Cross-cutting) (CRS ID: 2020000059) (Year: 2022)	38,064	5,379	38,064	5,379	Disbursed
Somalia	Process Consultant for assisting the formulation of the fourth phase of Denmark's Peace and Stabilisation Programme for the Horn of Africa (Committed) (Cross	248,070	35,057	NA	NA	Committed
Somalia	Process Consultant for assisting the formulation of the fourth phase of Denmark's Peace and Stabilisation Programme for the Horn of Africa (Provided) (Cross-(	74,421	10,517	74,421	10,517	Disbursed
Somalia	Formulation of the fourth phase of Denmark's Peace and Stabilisation Programme for the Horn of Africa (Committed) (Cross-cutting) (CRS ID: 2022000104) (Ye	742,694	104,957	NA	NA	Committed
Somalia	Formulation of the fourth phase of Denmark's Peace and Stabilisation Programme for the Horn of Africa (Provided) (Cross-cutting) (CRS ID: 2022000104) (Year	0	0	0	0	Disbursed
South Africa	SSC water sector, South Africa - Phase II (Committed) (Adaptation) (CRS ID: 2019001084) (Year: 2022)	3,330,563	470,674	NA	NA	Committed
South Africa	SSC water sector, South Africa - Phase II (Provided) (Adaptation) (CRS ID: 2019001084) (Year: 2022)	3,330,563	470,674	3,330,563	470,674	Disbursed
South Africa	GreenCape- Supporting just and green transition in Mpumalanga (Committed) (Mitigation) (CRS ID: 2022000273) (Year: 2022)	3,750,000	529,949	NA	NA	Committed
South Africa	GreenCape- Supporting just and green transition in Mpumalanga (Provided) (Mitigation) (CRS ID: 2022000273) (Year: 2022)	937,700	132,516	937,700	132,516	Disbursed
South Africa	SSC on Sustainable and Smart Cities between the City of Aarhus (DK) and the City of Tshwane (South Africa) (Committed) (Cross-cutting) (CRS ID: 20180010	928,225	131,177	NA	NA	Committed
South Africa	SSC on Sustainable and Smart Cities between the City of Aarhus (DK) and the City of Tshwane (South Africa) (Provided) (Cross-cutting) (CRS ID: 2018001098	928,225	131,177	928,225	131,177	Disbursed
South Africa	Table Mountain Water Source Area Partnership: Protecting Critical Groundwater (Committed) (Adaptation) (CRS ID: 2020000265) (Year: 2022)	0	0	NA	NA	Committed
South Africa	Table Mountain Water Source Area Partnership: Protecting Critical Groundwater (Provided) (Adaptation) (CRS ID: 2020000265) (Year: 2022)	357,421	50,511	357,421	50,511	Disbursed
South Africa	We!Are – Creative community engagement on climate action (Committed) (Cross-cutting) (CRS ID: 2022000166) (Year: 2022)	188,500	26,639	NA	NA	Committed
South Africa	We!Are – Creative community engagement on climate action (Provided) (Cross-cutting) (CRS ID: 2022000166) (Year: 2022)	113,100	15,983	113,100	15,983	Disbursed
South Africa	Water Institute of Southern Africa –Young water professionals ZA-DK exchange program (Committed) (Adaptation) (CRS ID: 2022000231) (Year: 2022)	183,052	25,869	NA	NA	Committed
South Africa	Water Institute of Southern Africa –Young water professionals ZA-DK exchange program (Provided) (Adaptation) (CRS ID: 2022000231) (Year: 2022)	109,831	15,521	109,831	15,521	Disbursed
South Africa	ISS: Developing the African Climate Securities Programme (Committed) (Adaptation) (CRS ID: 2021000230) (Year: 2022)	0	0	NA	NA	Committed
South Africa	ISS: Developing the African Climate Securities Programme (Provided) (Adaptation) (CRS ID: 2021000230) (Year: 2022)	32,600	4,607	32,600	4,607	Disbursed
South Africa	Private/Public Partnership Project in the Water Sector (Committed) (Cross-cutting) (CRS ID: 2013001141) (Year: 2022)	0	0	NA	NA	Committed
South Africa	Private/Public Partnership Project in the Water Sector (Provided) (Cross-cutting) (CRS ID: 2013001141) (Year: 2022)	15,791	2,232	15,791	2,232	Disbursed
South Africa	Climate Envelope 2012: South Africa - low carbon transition in the energy efficiency sector (Committed) (Mitigation) (CRS ID: 2012001288) (Year: 2022)	0	0	NA	NA	Committed
South Africa	Climate Envelope 2012: South Africa - low carbon transition in the energy efficiency sector (Provided) (Mitigation) (CRS ID: 2012001288) (Year: 2022)	11,451	1,618	11,451	1,618	Disbursed
South Sudan	Country Programme for South Sudan 2016-2018 (Committed) (Adaptation) (CRS ID: 2016001221) (Year: 2022)	0	0	NA	NA	Committed
South Sudan	Country Programme for South Sudan 2016-2018 (Provided) (Adaptation) (CRS ID: 2016001221) (Year: 2022)	81	12	81	12	Disbursed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Committed) (Mitigation) (CRS ID: 2021000059) (Year: 2022)	0	0	NA	NA	Committed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Provided) (Mitigation) (CRS ID: 2021000059) (Year: 2022)	3,455,030	488,264	3,455,030	488,264	Disbursed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Committed) (Mitigation) (CRS ID: 2021000074) (Year: 2022)	0	0	NA	NA	Committed
United Republic of Tanzania	Tanzania 2021 CP Bridging Funds - Green Growth and Job creation (Provided) (Mitigation) (CRS ID: 2021000074) (Year: 2022)	5,500,000	777,259	5,500,000	777,259	Disbursed
United Republic of Tanzania	DMDP 2017 – We SolVE Women Entrepreneurship through the Solar Value chain for Economic development in Tanzania (Committed) (Mitigation) (CRS ID: 20	0	0	NA	NA	Committed
United Republic of Tanzania	DMDP 2017 – We SolVE Women Entrepreneurship through the Solar Value chain for Economic development in Tanzania (Provided) (Mitigation) (CRS ID: 2017	949,500	134,183	949,500	134,183	Disbursed
United Republic of Tanzania	LR Marine – Reducing energy loss in pipe systems for the process industry in Tanzania (Committed) (Mitigation) (CRS ID: 2022000483) (Year: 2022)	365,416	51,640	NA	NA	Committed
United Republic of Tanzania	LR Marine – Reducing energy loss in pipe systems for the process industry in Tanzania (Provided) (Mitigation) (CRS ID: 2022000483) (Year: 2022)	0	0	0	0	Disbursed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Committed) (Adaptation) (CRS ID: 2022000452) (Year: 2022)	26,000,000	3,674,313	NA	NA	Committed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Provided) (Adaptation) (CRS ID: 2022000452) (Year: 2022)	0	0	0	0	Disbursed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Committed) (Adaptation) (CRS ID: 2017001240ab) (Year: 2022)	0	0	NA	NA	Committed
Uganda	Uganda Programme for Sustainable and Inclusive Development of the Economy (UPSIDE) (Provided) (Adaptation) (CRS ID: 2017001240ab) (Year: 2022)	7,242,367	1,023,489	7,242,367	1,023,489	Disbursed
Uganda	DSIF - Uganda - Wakiso West Water Supply and Sanitation Project (Committed) (Mitigation) (CRS ID: 2020020024) (Year: 2022)	5,000,000	706,599	NA	NA	Committed
Uganda	DSIF - Uganda - Wakiso West Water Supply and Sanitation Project (Provided) (Mitigation) (CRS ID: 2020020024) (Year: 2022)	5,000,000	706,599	5,000,000	706,599	Disbursed
Uganda	Innovative and Gender-sensitive Nature-based Solutions for Resilience and Green Jobs (Committed) (Adaptation) (CRS ID: 2020000402) (Year: 2022)	0	0	NA	NA	Committed
Uganda	Innovative and Gender-sensitive Nature-based Solutions for Resilience and Green Jobs (Provided) (Adaptation) (CRS ID: 2020000402) (Year: 2022)	3,699,500	522,812	3,699,500	522,812	Disbursed
Uganda	Growing inclusive green entrepreneurship in the Kibale, Itwara and Matiri forest landscape, Western Uganda (Committed) (Adaptation) (CRS ID: 2020000379) (	0	0	NA	NA	Committed
Uganda	Growing inclusive green entrepreneurship in the Kibale, Itwara and Matiri forest landscape, Western Uganda (Provided) (Adaptation) (CRS ID: 2020000379) (Y(	1,662,000	234,873	1,662,000	234,873	Disbursed
Ukraine	New Democracy Fund 2023-2026 (Committed) (Mitigation) (CRS ID: 2022000435) (Year: 2022)	25,000,000	3,532,994	NA	NA	Committed
Ukraine	New Democracy Fund 2023-2026 (Provided) (Mitigation) (CRS ID: 2022000435) (Year: 2022)	12,500,000	1,766,497	12,500,000	1,766,497	Disbursed
Ukraine	Ukraine-Denmark Energy Partnership Programme (UDEPP, 2021-2026) (Committed) (Mitigation) (CRS ID: 2021000163) (Year: 2022)	0	0	NA	NA	Committed
Ukraine	Ukraine-Denmark Energy Partnership Programme (UDEPP, 2021-2026) (Provided) (Mitigation) (CRS ID: 2021000163) (Year: 2022)	8,506,991	1,202,206	8,506,991	1,202,206	Disbursed
Viet Nam	Circular business models: international experiences and applicability to Vietnam in fulfilling the 2030 Sustainable Development Goals (SDGs) (Committed) (Mit	0	0	NA	NA	Committed
Viet Nam	Circular business models: international experiences and applicability to Vietnam in fulfilling the 2030 Sustainable Development Goals (SDGs) (Provided) (Mitiga	104,701	14,796	104,701	14,796	Disbursed

Table E2(2): Bilateral Support in 2022 (cont.)

(ROW 451-600 OF 622)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency	USD	Status
Viet Nam	Green Youth - Engaging young generation for Sustainable Energy and Climate Actions (Committed) (Cross-cutting) (CRS ID: 2021000168) (Year: 2022)	0	0	NA	NA	Committed
Viet Nam	Green Youth - Engaging young generation for Sustainable Energy and Climate Actions (Provided) (Cross-cutting) (CRS ID: 2021000168) (Year: 2022)	75,815	10,714	75,815	10,714	Disbursed
Viet Nam	Supporting women in environmental protection, FTAs and international environmental commitments implementation (Committed) (Adaptation) (CRS ID: 202200	114,829	16,228	NA	NA	Committed
Viet Nam	Supporting women in environmental protection, FTAs and international environmental commitments implementation (Provided) (Adaptation) (CRS ID: 20220002	67,022	9,471	67,022	9,471	Disbursed
Global	Team Europe Initiativ: Climate Change, Conflict and Migration in Sahel (Committed) (Cross-cutting) (CRS ID: 2021000209) (Year: 2022)	23,344	3,299	NA	NA	Committed
Global	Team Europe Initiativ: Climate Change, Conflict and Migration in Sahel (Provided) (Cross-cutting) (CRS ID: 2021000209) (Year: 2022)	285,438	40,338	285,438	40,338	Disbursed
Global	Contract - Programming Danish support to the Systematic Observations Financing Facility (Committed) (Adaptation) (CRS ID: 2022000116) (Year: 2022)	240,000	33,917	NA	NA	Committed
Global	Contract - Programming Danish support to the Systematic Observations Financing Facility (Provided) (Adaptation) (CRS ID: 2022000116) (Year: 2022)	240,000	33,917	240,000	33,917	Disbursed
Global	Preparation of Building Stronger Universities (BSU) phase 4 (Committed) (Cross-cutting) (CRS ID: 2022000093) (Year: 2022)	312,740	44,196	NA	NA	Committed
Global	Preparation of Building Stronger Universities (BSU) phase 4 (Provided) (Cross-cutting) (CRS ID: 2022000093) (Year: 2022)	0	0	0	0	Disbursed
Afghanistan	Save the Children ROI 2022: Building resilient communities for displacement affected youth and families with children and adolescents through support (Comm	4,150,000	586,477	NA	NA	Committed
Afghanistan	Save the Children ROI 2022: Building resilient communities for displacement affected youth and families with children and adolescents through support (Provic	4,150,000	586,477	4,150,000	586,477	Disbursed
Afghanistan	Assistance to drafting of documentation for the Transition Programme for Afghanistan 2022 (Committed) (Adaptation) (CRS ID: 2022000111) (Year: 2022)	108,650	15,354	NA	NA	Committed
Afghanistan	Assistance to drafting of documentation for the Transition Programme for Afghanistan 2022 (Provided) (Adaptation) (CRS ID: 2022000111) (Year: 2022)	90,765	12,827	90,765	12,827	Disbursed
-Northern Africa	CONSULTANCY AGREEMENT regarding formulation of Development Engagement in North Africa (Committed) (Cross-cutting) (CRS ID: 2021000095) (Year: 2(	0	0	NA	NA	Committed
-Northern Africa	CONSULTANCY AGREEMENT regarding formulation of Development Engagement in North Africa (Provided) (Cross-cutting) (CRS ID: 2021000095) (Year: 202	28,266	3,995	28,266	3,995	Disbursed
Argentina	SSC Argentina Urban Development phase I (Committed) (Mitigation) (CRS ID: 2020000187) (Year: 2022)	3,295,309	465,692	NA	NA	Committed
Argentina	SSC Argentina Urban Development phase I (Provided) (Mitigation) (CRS ID: 2020000187) (Year: 2022)	3,295,309	465,692	3,295,309	465,692	Disbursed
Ghana	SSC on Cities (Water) in Ghana, phase I (Committed) (Adaptation) (CRS ID: 2020000076) (Year: 2022)	1,445,159	204,229	NA	NA	Committed
Ghana	SSC on Cities (Water) in Ghana, phase I (Provided) (Adaptation) (CRS ID: 2020000076) (Year: 2022)	1,445,159	204,229	1,445,159	204,229	Disbursed
Ghana	SSC, Maritime Sector, Ghana, Phase III (Committed) (Mitigation) (CRS ID: 2022000165) (Year: 2022)	746,156	105,447	NA	NA	Committed
Ghana	SSC, Maritime Sector, Ghana, Phase III (Provided) (Mitigation) (CRS ID: 2022000165) (Year: 2022)	746,156	105,447	746,156	105,447	Disbursed
Morocco	Strategic Sector Cooperation Danish-Moroccan Water Partnership (Committed) (Adaptation) (CRS ID: 2021000100) (Year: 2022)	665,909	94,106	NA	NA	Committed
Morocco	Strategic Sector Cooperation Danish-Moroccan Water Partnership (Provided) (Adaptation) (CRS ID: 2021000100) (Year: 2022)	665,909	94,106	665,909	94,106	Disbursed
Rwanda	Consultant for external appraisal of climate adaptation in Rwanda (Committed) (Adaptation) (CRS ID: 2022000212) (Year: 2022)	296,150	41,852	NA	NA	Committed
Rwanda	Consultant for external appraisal of climate adaptation in Rwanda (Provided) (Adaptation) (CRS ID: 2022000212) (Year: 2022)	146,150	20,654	146,150	20,654	Disbursed
Rwanda	Konsulent til formulering af to klimatilpasningsprojekter i Rwanda (Committed) (Adaptation) (CRS ID: 2022000188) (Year: 2022)	302,344	42,727	NA	NA	Committed
Rwanda	Konsulent til formulering af to klimatilpasningsprojekter i Rwanda (Provided) (Adaptation) (CRS ID: 2022000188) (Year: 2022)	90,703	12,818	90,703	12,818	Disbursed
Türkiye	Strategic Sector Cooperation on Energy between Denmark and Turkey, Phase II (Committed) (Mitigation) (CRS ID: 2020000072) (Year: 2022)	4,382,468	619,329	NA	NA	Committed
Türkiye	Strategic Sector Cooperation on Energy between Denmark and Turkey, Phase II (Provided) (Mitigation) (CRS ID: 2020000072) (Year: 2022)	4,382,468	619,329	4,382,468	619,329	Disbursed
Brazil	Scaling Up Sustainable Soy (SUSS) Partnership (Committed) (Cross-cutting) (CRS ID: 2022000259) (Year: 2022)	15,000,000	2,119,796	NA	NA	Committed
Brazil	Scaling Up Sustainable Soy (SUSS) Partnership (Provided) (Cross-cutting) (CRS ID: 2022000259) (Year: 2022)	5,000,000	706,599	5,000,000	706,599	Disbursed
Brazil	Political Climate Leadership – Denmark and Brazil (Committed) (Cross-cutting) (CRS ID: 2022000268) (Year: 2022)	225,000	31,797	NA	NA	Committed
Brazil	Political Climate Leadership – Denmark and Brazil (Provided) (Cross-cutting) (CRS ID: 2022000268) (Year: 2022)	135,000	19,078	135,000	19,078	Disbursed
-Southern Europe	Kosovo-Denmark Partnership for Green and Just Energy Transition (Inception Phase, Danish Energy Agency) (Committed) (Mitigation) (CRS ID: 2022000205) (	1,500,000	211,980	NA	NA	Committed
-Southern Europe	Kosovo-Denmark Partnership for Green and Just Energy Transition (Inception Phase, Danish Energy Agency) (Provided) (Mitigation) (CRS ID: 2022000205) (Y(	1,500,000	211,980	1,500,000	211,980	Disbursed
-Southern Europe	Scoping and identification, Danish support for green energy transition in Kosovo (Committed) (Mitigation) (CRS ID: 2022000024) (Year: 2022)	217,250	30,702	NA	NA	Committed
-Southern Europe	Scoping and identification, Danish support for green energy transition in Kosovo (Provided) (Mitigation) (CRS ID: 2022000024) (Year: 2022)	217,993	30,807	217,993	30,807	Disbursed
Mexico	Climate Envelope 2013: Climate change mitigation and energy in Mexico (Committed) (Mitigation) (CRS ID: 2013001337) (Year: 2022)	0	0	NA	NA	Committed
Mexico	Climate Envelope 2013: Climate change mitigation and energy in Mexico (Provided) (Mitigation) (CRS ID: 2013001337) (Year: 2022)	2,012,966	284,472	2,012,966	284,472	Disbursed
Global	CISU - Pool grants (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	22,706,548	3,208,884	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	33,212,562	4,693,591	33,212,562	4,693,591	Disbursed
Global	CISU - Pool grants (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	3,005,686	424,763	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	4,396,377	621,295	4,396,377	621,295	Disbursed
Global	CISU - Pool grants (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	2,810,541	397,185	NA	NA	Committed
Global	CISU - Pool grants (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	4,110,940	580,957	4,110,940	580,957	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	328,356	46,403	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	11,633,097	1,643,986	11,633,097	1,643,986	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	53,411	7,548	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	1,892,271	267,415	1,892,271	267,415	Disbursed
Global	FFU Projects Window 1 and 2 2018 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	13,407	1,895	NA	NA	Committed
Global	FFU Projects Window 1 and 2 2018 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	475,003	67,127	475,003	67,127	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	120,251	16,994	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	12,208,193	1,725,259	12,208,193	1,725,259	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	19,486	2,754	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	1,978,219	279,561	1,978,219	279,561	Disbursed
Global	FFU Windows 1 and 2 2019 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	FFU Windows 1 and 2 2019 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	647,066	91,443	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	20,737,137	2,930,567	20,737,137	2,930,567	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	228,094	32,234	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	7,309,938	1,033,039	7,309,938	1,033,039	Disbursed
Global	FFU Windows 1 and 2 2020 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	106,217	15,011	NA	NA	Committed
Global	FFU Windows 1 and 2 2020 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	3,404,028	481,056	3,404,028	481,056	Disbursed
Global	Growth Advisors (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	4,660,833	658,668	NA	NA	Committed
Global	Growth Advisors (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	4,660,833	658,668	4,660,833	658,668	Disbursed
Global	Growth Advisors (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	13,091,458	1,850,082	NA	NA	Committed
Global	Growth Advisors (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	13,091,458	1,850,082	13,091,458	1,850,082	Disbursed
Global	Growth Advisors (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	2,467,500	348,706	NA	NA	Committed
Global	Growth Advisors (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	2,467,500	348,706	2,467,500	348,706	Disbursed
Global	Danmission - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	329,278	46,533	NA	NA	Committed
Global	Danmission - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	329,278	46,533	329,278	46,533	Disbursed
Global	Danmission - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	59,852	8,458	NA	NA	Committed
Global	Danmission - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	387,338	54,739	387,338	54,739	Disbursed
Global	Danmission - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	387,338	54,739	NA	NA	Committed
Global	Danmission - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	387,338	54,739	387,338	54,739	Disbursed
Global	Caritas - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	7,346,663	1,038,229	NA	NA	Committed
Global	Caritas - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	7,346,663	1,038,229	7,346,663	1,038,229	Disbursed
Global	Caritas - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Caritas - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Caritas - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Caritas - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	3,817,000	539,417	NA	NA	Committed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	3,817,000	539,417	3,817,000	539,417	Disbursed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Arbejdsmarkedskonsortiet - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	42,597,666	6,019,891	NA	NA	Committed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	42,597,666	6,019,891	42,597,666	6,019,891	Disbursed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	5,053,259	714,125	NA	NA	Committed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	5,053,259	714,125	5,053,259	714,125	Disbursed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	22,443,680	3,171,735	NA	NA	Committed
Global	Folkekirkens Nødhjælp - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	22,443,680	3,171,735	22,443,680	3,171,735	Disbursed
Global	ADRA - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	5,900,000	833,786	NA	NA	Committed
Global	ADRA - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	5,900,000	833,786	5,900,000	833,786	Disbursed
Global	ADRA - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	ADRA - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	ADRA - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	ADRA - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	60,199,912	8,507,436	NA	NA	Committed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	60,199,912	8,507,436	60,199,912	8,507,436	Disbursed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Dansk Flygtningehjælp - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	CARE - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	60,896,000	8,605,807	NA	NA	Committed
Global	CARE - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	60,896,000	8,605,807	60,896,000	8,605,807	Disbursed
Global	CARE - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	CARE - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	CARE - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	CARE - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	14,536,500	2,054,294	NA	NA	Committed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	14,536,500	2,054,294	14,536,500	2,054,294	Disbursed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Dansk Røde Kors - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Mission Øst - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	924,000	130,579	NA	NA	Committed
Global	Mission Øst - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	924,000	130,579	924,000	130,579	Disbursed
Global	Mission Øst - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Mission Øst - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Mission Øst - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Mission Øst - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	8,549,923	1,208,273	NA	NA	Committed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	8,549,923	1,208,273	8,549,923	1,208,273	Disbursed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	3,122,921	441,330	NA	NA	Committed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	3,122,921	441,330	3,122,921	441,330	Disbursed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	14,621,935	2,066,368	NA	NA	Committed
Global	MS ActionAid - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	14,621,935	2,066,368	14,621,935	2,066,368	Disbursed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	5,711,956	807,212	NA	NA	Committed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	5,711,956	807,212	5,711,956	807,212	Disbursed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Oxfam IBIS - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	1,071,146	151,374	NA	NA	Committed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	1,071,146	151,374	1,071,146	151,374	Disbursed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Sex og Samfund - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Red Barnet - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	35,482,500	5,014,378	NA	NA	Committed
Global	Red Barnet - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	35,482,500	5,014,378	35,482,500	5,014,378	Disbursed
Global	Red Barnet - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	Red Barnet - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Red Barnet - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	4,634,500	654,946	NA	NA	Committed
Global	Red Barnet - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	4,634,500	654,946	4,634,500	654,946	Disbursed
Global	International Media Support - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	4,904,149	693,053	NA	NA	Committed
Global	International Media Support - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	4,904,149	693,053	4,904,149	693,053	Disbursed

Table E2(2): Bilateral Support in 2022 (cont.)

(ROW 601-622 OF 622)

		Face value		Grant equivalent		
Country/Region/Global	Title of the project programme, activity or otherc, e (Status) (Support) (CRS ID) (Year)	Domestic currency	USD	Domestic currency	USD3	Status
Global	International Media Support - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	International Media Support - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	International Media Support - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	International Media Support - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	400,000	56,528	NA	NA	Committed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	400,000	56,528	400,000	56,528	Disbursed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	529,459	74,823	NA	NA	Committed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	529,459	74,823	529,459	74,823	Disbursed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	12,658,447	1,788,888	NA	NA	Committed
Global	Verdens Skove - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	12,658,447	1,788,888	12,658,447	1,788,888	Disbursed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	472,766	66,811	NA	NA	Committed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	472,766	66,811	472,766	66,811	Disbursed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	PlanBørnefonden - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed
Global	WWF - Strategic Partnership 2022-2025 (Committed) (Adaptation) (CRS ID: NA) (Year: 2022)	11,984,212	1,693,606	NA	NA	Committed
Global	WWF - Strategic Partnership 2022-2025 (Provided) (Adaptation) (CRS ID: NA) (Year: 2022)	11,984,212	1,693,606	11,984,212	1,693,606	Disbursed
Global	WWF - Strategic Partnership 2022-2025 (Committed) (Mitigation) (CRS ID: NA) (Year: 2022)	502,000	70,943	NA	NA	Committed
Global	WWF - Strategic Partnership 2022-2025 (Provided) (Mitigation) (CRS ID: NA) (Year: 2022)	502,000	70,943	502,000	70,943	Disbursed
Global	WWF - Strategic Partnership 2022-2025 (Committed) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	NA	NA	Committed
Global	WWF - Strategic Partnership 2022-2025 (Provided) (Cross-cutting) (CRS ID: NA) (Year: 2022)	0	0	0	0	Disbursed

Table E2(3): Multilateral Support in 2021

(ROW 6-165 OF 165)

	Amount[c, d]												Recipient[c, e, g]
	Inflows[c, e]								Outflows[c, e]				
	Core/general[c, e, f]				Climate-specific[e]				Climate-specific[e]				
	Face value		Grant equivalent		Face value		Grant equivalent		Face value		Grant equivalent		
Institution[c]	Domestic currency	USD	Domestic currency2	USD3	Domestic currency4	USD5	Domestic currency6	USD7	Domestic currency8	USD9	Domestic currency10	USD11	Recipient
African Development Bank	67,000,000	10,656,720	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	13,827,460	2,199,334	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	12,866,010	2,046,410	NA	NA	NA	NA	NA	NA	Global
African Development Bank	67,000,000	10,656,720	67,000,000	10,656,720	0	0	0	0	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	13,827,460	2,199,334	13,827,460	2,199,334	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	12,866,010	2,046,410	12,866,010	2,046,410	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Bank	419,743	66,762	419,743	66,762	0	0	0	0	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	86,626	13,778	86,626	13,778	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
African Development Bank	0	0	0	0	80,603	12,820	80,603	12,820	NA	NA	NA	NA	Global
African Development Fund	175,000,000	27,834,715	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Fund	0	0	NA	NA	20,884,500	3,321,795	NA	NA	NA	NA	NA	NA	Global
African Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
African Development Fund	0	0	NA	NA	38,190,250	6,074,370	NA	NA	NA	NA	NA	NA	Global
African Development Fund	172,077,655	27,369,900	172,077,655	27,369,900	0	0	0	0	NA	NA	NA	NA	Global
African Development Fund	0	0	0	0	20,535,747	3,266,324	20,535,747	3,266,324	NA	NA	NA	NA	Global
African Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
African Development Fund	0	0	0	0	37,552,507	5,972,933	37,552,507	5,972,933	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	19,100,000	3,037,960	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	NA	NA	1,817,747	289,123	NA	NA	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	NA	NA	13,040,143	2,074,107	NA	NA	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	NA	NA	2,808,655	446,732	NA	NA	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	19,100,000	3,037,960	19,100,000	3,037,960	0	0	0	0	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	0	0	1,817,747	289,123	1,817,747	289,123	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	0	0	13,040,143	2,074,107	13,040,143	2,074,107	NA	NA	NA	NA	Global
Consultative Group on International Agricultural Research	0	0	0	0	2,808,655	446,732	2,808,655	446,732	NA	NA	NA	NA	Global
European Commission - European Development Fund	510,162,029	81,144,085	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	510,162,029	81,144,085	510,162,029	81,144,085	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	100,000,000	15,905,552	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	16,702,000	2,656,545	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	83,298,000	13,249,006	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	100,000,000	15,905,552	100,000,000	15,905,552	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	16,702,000	2,656,545	16,702,000	2,656,545	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	83,298,000	13,249,006	83,298,000	13,249,006	NA	NA	NA	NA	Global
Green Climate Fund	220,000,000	34,992,213	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	106,827,600	16,991,519	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	41,615,200	6,619,127	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	71,557,200	11,381,567	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	220,000,000	34,992,213	220,000,000	34,992,213	0	0	0	0	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	106,827,600	16,991,519	106,827,600	16,991,519	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	41,615,200	6,619,127	41,615,200	6,619,127	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	71,557,200	11,381,567	71,557,200	11,381,567	NA	NA	NA	NA	Global
Green Climate Fund	335,000,000	53,283,598	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	162,669,300	25,873,449	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	63,368,600	10,079,125	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	0	0	NA	NA	108,962,100	17,331,023	NA	NA	NA	NA	NA	NA	Global
Green Climate Fund	335,000,000	53,283,598	335,000,000	53,283,598	0	0	0	0	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	162,669,300	25,873,449	162,669,300	25,873,449	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	63,368,600	10,079,125	63,368,600	10,079,125	NA	NA	NA	NA	Global
Green Climate Fund	0	0	0	0	108,962,100	17,331,023	108,962,100	17,331,023	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	2,000,000	318,111	2,000,000	318,111	0	0	0	0	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	2,000,000	318,111	2,000,000	318,111	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	25,203,364	4,008,734	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	4,439,825	706,179	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	3,345,243	532,079	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	25,384,588	4,037,559	25,384,588	4,037,559	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	4,471,749	711,256	4,471,749	711,256	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	3,369,296	535,905	3,369,296	535,905	NA	NA	NA	NA	Global
International Development Association	244,600,000	38,904,979	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	32,338,566	5,143,627	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	44,177,206	7,026,628	NA	NA	NA	NA	NA	NA	Global
International Development Association	244,600,000	38,904,979	244,600,000	38,904,979	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	32,338,566	5,143,627	32,338,566	5,143,627	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	44,177,206	7,026,628	44,177,206	7,026,628	NA	NA	NA	NA	Global
International Development Association	362,130,000	57,598,774	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	47,877,207	7,615,134	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	65,404,299	10,402,915	NA	NA	NA	NA	NA	NA	Global
International Development Association	362,130,000	57,598,774	362,130,000	57,598,774	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	47,877,207	7,615,134	47,877,207	7,615,134	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	65,404,299	10,402,915	65,404,299	10,402,915	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	20,284,808	3,226,411	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	NA	NA	20,284,808	3,226,411	NA	NA	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	20,284,808	3,226,411	20,284,808	3,226,411	0	0	0	0	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	0	0	20,284,808	3,226,411	20,284,808	3,226,411	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Multilateral Fund for the Implementation of the Montreal Protocol	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Nordic Development Fund	48,643,212	7,736,971	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	44,951,192	7,149,735	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	3,692,020	587,236	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	48,643,212	7,736,971	48,643,212	7,736,971	0	0	0	0	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	44,951,192	7,149,735	44,951,192	7,149,735	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	3,692,020	587,236	3,692,020	587,236	NA	NA	NA	NA	Global
OECD Development Centre	1,700,000	270,394	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	673,657	107,149	673,657	107,149	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	5,000,000	795,278	5,000,000	795,278	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	5,000,000	795,278	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Organisation for Economic Co-operation and Development (Contributions to special funds for Technical Co-operation Activities Only)	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	162,000,000	25,766,994	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	162,000,000	25,766,994	162,000,000	25,766,994	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	30,000,000	4,771,665	30,000,000	4,771,665	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global

Table E2(4): Multilateral Support in 2022

(ROW 6-165 OF 165)

Institution[c]	Amount[c,d]												Recipient[c,e,g]
	Inflows[c,e]								Outflows[c,e]				
	Core/general[c,e,f]				Climate-specific[e]				Climate-specific[e]				
	Face value		Grant equivalent		Face value		Grant equivalent		Face value		Grant equivalent		
Institution	Domestic currency	USD	Domestic currency2	USD3	Domestic currency4	USD5	Domestic currency6	USD7	Domestic currency8	USD9	Domestic currency10	USD11	Recipient
African Development Bank	64,900,521	9,171,725	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	16,748,229	2,366,855	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	5,486,690	775,378	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	64,900,521	9,171,725	64,900,521	9,171,725	0	0	0	0	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	16,748,229	2,366,855	16,748,229	2,366,855	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	5,486,690	775,378	5,486,690	775,378	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Bank	419,923	59,343	419,923	59,343	0	0	0	0	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	108,365	15,314	108,365	15,314	NA	NA	NA	NA	Regional
African Development Bank	0	0	0	0	35,500	5,017	35,500	5,017	NA	NA	NA	NA	Regional
African Development Fund	172,140,108	24,326,796	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
African Development Fund	0	0	NA	NA	41,695,777	5,892,437	NA	NA	NA	NA	NA	NA	Regional
African Development Fund	0	0	NA	NA	21,126,755	2,985,628	NA	NA	NA	NA	NA	NA	Regional
African Development Fund	172,140,108	24,326,796	172,140,108	24,326,796	0	0	0	0	NA	NA	NA	NA	Regional
African Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Regional
African Development Fund	0	0	0	0	41,695,777	5,892,437	41,695,777	5,892,437	NA	NA	NA	NA	Regional
African Development Fund	0	0	0	0	21,126,755	2,985,628	21,126,755	2,985,628	NA	NA	NA	NA	Regional
European Commission - Development Share of Budget	1,868,905,736	264,113,283	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	1,868,905,736	264,113,283	1,868,905,736	264,113,283	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	380,373,696	53,754,314	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	380,373,696	53,754,314	380,373,696	53,754,314	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - Development Share of Budget	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	362,747,937	51,263,446	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
European Commission - European Development Fund	362,747,937	51,263,446	362,747,937	51,263,446	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
European Commission - European Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Food and Agricultural Organisation	15,440,951	2,182,111	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	NA	NA	811,268	114,648	NA	NA	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	NA	NA	272,224	38,471	NA	NA	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	NA	NA	82,146	11,609	NA	NA	NA	NA	NA	NA	Global
Food and Agricultural Organisation	15,440,951	2,182,111	15,440,951	2,182,111	0	0	0	0	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	0	0	811,268	114,648	811,268	114,648	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	0	0	272,224	38,471	272,224	38,471	NA	NA	NA	NA	Global
Food and Agricultural Organisation	0	0	0	0	82,146	11,609	82,146	11,609	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	30,000,000	4,239,592	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	7,150,200	1,010,464	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	22,849,800	3,229,128	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	30,000,000	4,239,592	30,000,000	4,239,592	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	7,150,200	1,010,464	7,150,200	1,010,464	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	22,849,800	3,229,128	22,849,800	3,229,128	NA	NA	NA	NA	Global
Global Environment Facility - Least Developed Countries Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	35,000,000	4,946,191	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	NA	NA	35,000,000	4,946,191	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	35,000,000	4,946,191	35,000,000	4,946,191	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	0	0	35,000,000	4,946,191	35,000,000	4,946,191	NA	NA	NA	NA	Global
Global Environment Facility - Special Climate Change Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	2,000,000	282,639	2,000,000	282,639	0	0	0	0	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	2,000,000	282,639	2,000,000	282,639	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Intergovernmental Panel on Climate Change	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	75,300,000	10,641,377	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	10,938,078	1,545,766	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	17,873,208	2,525,837	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	74,849,838	10,577,760	74,849,838	10,577,760	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	10,872,687	1,536,525	10,872,687	1,536,525	NA	NA	NA	NA	Global
International Bank for Reconstruction and Development	0	0	0	0	17,766,358	2,510,737	17,766,358	2,510,737	NA	NA	NA	NA	Global
International Development Association	412,000,000	58,223,735	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	84,155,120	11,892,780	NA	NA	NA	NA	NA	NA	Global
International Development Association	0	0	NA	NA	59,542,240	8,414,494	NA	NA	NA	NA	NA	NA	Global
International Development Association	412,000,000	58,223,735	412,000,000	58,223,735	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	84,155,120	11,892,780	84,155,120	11,892,780	NA	NA	NA	NA	Global
International Development Association	0	0	0	0	59,542,240	8,414,494	59,542,240	8,414,494	NA	NA	NA	NA	Global
International Renewable Energy Agency	562,915	79,551	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	562,915	79,551	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	562,915	79,551	562,915	79,551	0	0	0	0	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	562,915	79,551	562,915	79,551	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Renewable Energy Agency	764,308	108,012	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	764,308	108,012	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
International Renewable Energy Agency	764,308	108,012	764,308	108,012	0	0	0	0	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	764,308	108,012	764,308	108,012	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
International Renewable Energy Agency	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
Nordic Development Fund	50,000,000	7,065,987	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	NA	NA	39,868,500	5,634,206	NA	NA	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	NA	NA	10,131,500	1,431,781	NA	NA	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Regional
Nordic Development Fund	50,000,000	7,065,987	50,000,000	7,065,987	0	0	0	0	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	0	0	39,868,500	5,634,206	39,868,500	5,634,206	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	0	0	10,131,500	1,431,781	10,131,500	1,431,781	NA	NA	NA	NA	Regional
Nordic Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Regional
Nordic Development Fund	48,637,980	6,873,507	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	38,782,466	5,480,728	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	9,855,514	1,392,779	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
Nordic Development Fund	48,637,980	6,873,507	48,637,980	6,873,507	0	0	0	0	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	38,782,466	5,480,728	38,782,466	5,480,728	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	9,855,514	1,392,779	9,855,514	1,392,779	NA	NA	NA	NA	Global
Nordic Development Fund	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
OECD Development Centre	675,072	95,401	675,072	95,401	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
OECD Development Centre	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	150,000,000	21,197,962	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Development Programme	150,000,000	21,197,962	150,000,000	21,197,962	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Development Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	50,000,000	7,065,987	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	NA	NA	0	0	NA	NA	NA	NA	NA	NA	Global
United Nations Environment Programme	50,000,000	7,065,987	50,000,000	7,065,987	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global
United Nations Environment Programme	0	0	0	0	0	0	0	0	NA	NA	NA	NA	Global

Table E2(5): Mobilised in 2021

(ROW 4-7 OF 7)

Recipient c			Amount mobilized[1,2]				Amount of resources used to mobilize the support [2]				
			Face value		Grant equivalent						
Recipient	Title of the project programme, activity or other[3,4]	Channel [4]	Domestic currency	USD	Domestic currency2	USD2	Domestic currency3	USD4	Type of support	Sector [4]	Subsector [4]
Malawi	PV Plant; Non-export credit OOF	Bilateral	61,160,978	9,727,991	NR	NR	85,069,360	13,530,751	Mitigation	Energy	Solar energy for centralised grids
India	Solar power generation; Non-export credit OOF	Bilateral	731,443,345	116,340,098	NR	NR	102,084,700	16,237,135	Mitigation	Energy	Solar energy for centralised grids
India	Renewable energy; Non-export credit OOF	Bilateral	939,000,000	149,353,129	NR	NR	222,360,000	35,367,584	Mitigation	Energy	Solar energy for centralised grids
Pakistan	Development platform - wind/PV; Non-export credit OOF	Bilateral	4,072,643	647,776	NR	NR	3,561,869	566,535	Mitigation	Energy	Wind energy

Table E2(6): Mobilised in 2022

(ROW 4-12 OF 12)

Recipient c			Amount mobilized [1]				Amount of resources used to mobilize the support [1]				
			Face value		Grant equivalent						
Recipient	Title of the project programme, activity or other [2,4]	Channel [3]	Domestic currenc	USD	Domestic currenc	USD2	Domestic currenc	USD4	Type of support	Sector [5]	Subsector [5]
Africa	Fund for clean cooking	Regional	74,359,530	10,508,470	NR	NR	107,584,000	15,203,744	Mitigation	Other (Banking & Financial Services)	Financial policy and administrative management
Africa	Water investment fund	Regional	61,370,100	8,672,807	NR	NR	50,196,375	7,093,739	Mitigation	Water and sanitation	Water supply - large systems
Brazil	Solar PV park	Bilateral	4,059,187	573,643	NR	NR	3,904,478	551,780	Mitigation	Energy	Solar energy for centralised grids
Brazil	Solar PV	Bilateral	502,177,515	70,967,599	NR	NR	303,051,071	42,827,100	Mitigation	Energy	Solar energy for centralised grids
China	Renewable energy projects	Bilateral	18,591,250	2,627,311	NR	NR	17,103,950	2,417,126	Mitigation	Energy	Solar energy for centralised grids
Ecuador	Packaging products	Bilateral	194,458,000	27,480,755	NR	NR	106,068,000	14,989,503	Mitigation	Industry	Forest industries
Ghana	Cement	Bilateral	423,717,345	59,879,627	NR	NR	107,341,797	15,169,515	Mitigation	Industry	Cement/lime/plaster
India	Organic Food	Bilateral	90,620,400	12,806,452	NR	NR	204,075,000	28,839,827	Mitigation	Industry	Agro-industries
India	Recycled PET flakes	Bilateral	57,346,154	8,104,144	NR	NR	106,509,492	15,051,894	Mitigation	Water and sanitation	Waste management/disposal

Annex E3 Notes to the information reported in the Common Tabular Format in the Support-module of the ETF Reporting Tool

NOTES FOR THE FULL REPORTING OF SUPPORT INFORMATION IN THE COMMON TABULAR FORMAT (CTF) IN THE SUPPORT-MODULE OF THE ETF REPORTING TOOL

Biennial Transparency Report 1 (BTR1)

Process and decision note

- The ETF BTR Submission builds on EU MMR/GR submissions for the years 2021 and 2022. Aside from the below modifications, the Process and decision notes from the EU MMR/GR 2021 and 2022 applies.

- For the recipient column, entries have been altered to correspond to those in the predefined drop-down menu. Specifically, the below entries have been modified:

    - EU MMR/GR entry → BTR entry
    - Interregional → Global
    - Africa South of Sahara → -Southern Africa
    - Africa North of Sahara → -Northern Africa
    - Myanmar (Burma) → Myanmar
    - Bolivia → Bolivia (Plurinational State of)
    - Vietnam → Viet Nam
    - Turkey → Türkiye
    - Tanzania → United Republic of Tanzania

- The EFT Reporting tools are using officially recognized by the UN, so Kosovo is not recognized. Therefore, projects to Kosovo have been reported in the -Southern Europe region instead.

- Türkiye is not currently recognized when uploading and validating even though it is a part of the drop-down options in the ETF Excel Bulk Data Tool, so projects to Turkey appear empty in the recipient column. In a correspondence with the Bonn support team, this was confirmed as an error, but as of the time of writing, a new version with correction has not been submitted.

- The title column entries have been modified to allow for submission of both commitments and disbursements, multiple types of support, and multiple sectors for a given project as the Excel import tool requires that each title entry is unique. To do this, suffixes in parentheses have been added to each project. The titles are now in the format of [Title] ([Status]) ([Type of Support]) ([Year]).

In addition, the UNFCCC portal for uploading the submission separates column entries in the .json-file by "", so any "" in the titles have been removed

The SPA/CISU pool grant entries are not associated with CRS IDs in the MMR/GR, so they have empty parentheses instead of CRS IDs.

- Commitments and disbursements have been unpivoted, creating two rows for each entry in the MMR/GR. In this way, both commitments and disbursements are reported.

- In addition to Finance Type (Bilateral, multi-bilateral, multilateral), Donor ID, CRS ID, and Description, the Additional Information column supplemented with information on the Implementing Agency/Channel of Delivery Name to comply with footnote i in Table1 in the CTF FTC file - the excel file associated with the submission.

- Where the MMR/GR submissions reported Capacity Building and Technology Transfer contributions for projects in the formats of "Both", "T" (for technology transfer), or "C" (for

Capacity Building), the BTR ETF reports Technology Transfer and Capacity Building contributions in separate columns with either "Yes" if a given project contributes to Technology Transfer or Capacity Building and "No" if not. The ETF submission has been updated to reflect this.

In addition, the ETF allows for several columns with additional information regarding Technology Transfer and Capacity Building contributions, namely "Recipient Entity", "Description and objectives", "Type of Support", "Sector", "Subsector", "Type of technology", "Status of measure or activity", "Activity undertaken by", and "Additional information" for Technology Transfer and "Recipient entity", "Description and objectives", "Type of support", "Status of measure or activity", and "Additional information" for Capacity Building. As the MMR/GRs does not contain detailed information for these columns, only the columns "Type of Support", "Sector", and "Subsector" have been filled with the corresponding information for a given project, while the remaining columns have been filled with "UA" ("information not available at the time of reporting").

- The Year column have been filled with the corresponding reporting years, 2021 or 2022.
- Grant equivalent values have been filled for disbursements and reported as "NA" ("Not applicable") for commitments.
- USD-amounts have been filled by using average annual conversion rates for the years from OECD. (https://data-explorer.oecd.org/vis?lc=en&df[ds]=DisseminateArchiveDMZ&df[id]=DF_DP_LIVE&df[ag]=OECD&av=true&pd=2021%2C2022&dq=DNK.EXCH%2BG_CONVERSION...A&to[TIME_PERIOD]=false&vw=tb&lb=bt)
- For the submission of multilateral finance, imputed shares for non-100% climate-specific institutions have been reported. This is not reported in the MMR2021 and GR2022, where only the climate-specific finance of 100% climate-specific institutions were reported.
    - To do this, a row for each type of support for each contribution has been included.
    - In addition, as the core contribution to institutions where imputed share calculations are calculated are not specified into type of support, the Core contribution is classified as "Mitigation" in the "Type of support" column but does not have any climate-specific finance associated, as there is no option in the "Type of support" column to choose "Core". In addition, the title specifies if a row is core contributions or adaptation, mitigation, or cross-cutting.
    - In some cases, several contributions were made to the same institution in the same year. As the title of the contribution has to be unique, suffixes have manually been added to the title. For example, Green Climate Fund 2020-2023 (GCF-1) received disbursements of DKK 555m in total but split in two contributions. Therefore, "(a)" was added to the title of the first contribution and "(b)" was added to the second.

Annex E4 Information on the Danish Centre for Global Cooperation

Centre for Global Cooperation
Best practice from decades of green transition in Denmark is shared globally through government-to-government cooperation with partner countries. At the moment there are established 25 partnerships, which include Brazil, China, Colombia, Egypt, Ethiopia, India, Indonesia, Kenya, Mexico, Morocco, South Africa, Republic of Korea, Vietnam, Estonia, France, Germany, Japan, Latvia, Lithuania, Poland, the United Kingdom, the United States, the Netherlands, Turkey and Ukraine. In addition, a number of short-term country cooperations have been established, e.g. with Pakistan and Algeria through the Danish Energy Transition Initiative (DETI).

Under the Ministry of Climate, Energy and Utilities, the Danish Energy Agency's Centre for Global Cooperation is managing the partnerships in close cooperation with The Danish Ministry of Foreign Affairs, including the relevant embassies, the Danish Transmission System Operator, Energinet, as well as other relevant branch organizations. In some of the partner countries, energy advisors are posted at the Danish embassies and with partner institutions in the countries and supported by experts from the Danish Energy Agency.

Background
Denmark emits 0.1 per cent of the world's CO_2 emissions. By having close partnerships and sharing knowledge with 24 key partner countries, which collectively emits 70 per cent of the world's CO_2 emissions, Denmark can amplify its impact on global CO_2 emission reductions.

Based on decades of green transition of the Danish energy sector, Denmark supports an acceleration of the global transition towards low carbon energy in the partner countries. In close cooperation with the partner countries, green paths where the partner countries can maintain economic growth and a high security of electricity supply 24/7 are identified. By sharing Danish know-how and experiences with technical solutions and regulatory frameworks conducive for a green transition, policy makers in the partner countries are empowered to make sustainable and cost-effective energy policy decisions that support a sustainable global transition in their country.

Sharing and exchanging 40 years of know-how and experience
Through many years of experiences within green transition, Denmark has gained unique know-how and expertise. From depending entirely on imported fossil fuels, Denmark now have almost 70 per cent share of electricity from renewables while maintaining a world record security of electricity supply at 99.996 per cent. A green transition of the energy sector is not only a transition towards a more sustainable energy supply, it is also a transition towards greater energy security and independence of importing fossil fuels.

Five key areas have been important for the Danish energy transition and today, they contribute to building a strong foundation for green transition in our partner countries. These are:

• Long-term energy modelling and scenarios
• Integration of renewable energy
• Wind power – offshore and onshore
• Energy efficiency in industry and buildings
• District heating

Acquiring knowledge that can support Denmark's emission reduction target
Partner countries have valuable experiences in developing new green solutions which we in Denmark also can learn from. Experiences that can be applied to help fulfil Denmark's ambition of a 70 per cent reduction in greenhouse gas emissions by 2030. Thus, we acquire knowledge and experience through our country cooperations in areas such as Power-to-X, energy efficiency, geothermal energy and carbon capture and storage.

Further information
On the website of the Danish Energy Agency (https://ens.dk/en) you can find more general information about the global cooperation (https://ens.dk/en/our-responsibilities/global-cooperation) as well as specific information on:

- The Energy Partnershipscountry cooperation: https://ens.dk/en/our-responsibilities/global-cooperation/energy-partnerships ,

- Selected partnership cases: https://ens.dk/en/our-responsibilities/global-cooperation/partnership-cases and
- Tools and publications: https://ens.dk/en/our-responsibilities/global-cooperation/tools-and-publications

Data Sheet

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Ministry of Foreign Affairs;
Ministry of Industry, Business and Financial Affairs and the Danish Business Authority thereunder;
Ministry of Social Affairs, Housing and Senior Citizens;
Danish Ministry of Taxation;
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Abstract:
"The Kingdom of Denmark's First Biennial Transparenct Report" is the first report on Denmark's implementation of its obligations under the Paris Agreement – submitted to the United Nations Framework Convention on Climate Change (UNFCCC).

Supplementary notes:
Denmark's First National Communication submitted under the UNFCCC was published in 1994 under the title "Climate Protection in Denmark" (Miljøstyrelsen, 1994). "Denmark's Second National Communication on Climate Change" (Miljøstyrelsen) is from 1997, "Denmark's Third National Communication on Climate Change" (Miljøstyrelsen) was published in 2003, "Denmark's Fourth National Communication on Climate Change" (Miljøstyrelsen) was published in 2005, "Denmark's Fifth National Communication on Climate Change" (Ministry of Climate and Energy) was published in 2009, "Denmark's Sixth National Communication on Climate Change and First Biennial Report" (Ministry of Climate, Energy and Building) was published in 2013, Denmark's Second Biennial Report (Ministry of Energy, Utilities and Climate) was published in 2016, "Denmark's Seventh National Communication on Climate Change and Third Biennial Report" (Ministry of Energy, Utilities and Climate) was published in 2018, Denmark's Fourth Biennial Report (Ministry of Climate, Energy and Utilities) was published in 2019 and "Denmark's Eighth National Communication on Climate Change and Fifth Biennial Report" (Ministry of Climate, Energy and Utilities) was published in 2023.

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Frontpage: Vattenfall (from the new offshore wind farms in the North Sea Vesterhav Syd (168 MW) and Vesterhav Nord (176 MW) with a total installed capacity of 344 MW inaugurated 12 September 2024).

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