



United Nations

FCCE/IDR.8/DNK-FCCE/TRR.5/DNK



Framework Convention on  
Climate Change

Distr.: General  
1 February 2024

English only

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## **Report on the technical review of the eighth national communication and the technical review of the fifth biennial report of Denmark**

Parties included in Annex I to the Convention were requested by decision 6/CP.25 to submit their eighth national communication to the secretariat by no later than 31 December 2022. According to decision 15/CMP.1, Parties included in Annex I to the Convention that are also Parties to the Kyoto Protocol are required to include in their national communications supplementary information under Article 7, paragraph 2, of the Kyoto Protocol. This report presents the results of the technical review of the eighth national communication and relevant supplementary information under the Kyoto Protocol of Denmark, conducted by an expert review team in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention” and the “Guidelines for review under Article 8 of the Kyoto Protocol”.

Developed country Parties were requested by decision 6/CP.25 to submit their fifth biennial report to the secretariat by no later than 31 December 2022. This report presents the results of the technical review of the fifth biennial report of Denmark, conducted by an expert review team in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”.

The review of these submissions took place in Copenhagen from 23 to 27 October 2023.



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## Abbreviations and acronyms

AEA	annual emission allocation
AFOLU	agriculture, forestry and other land use
Annex I Party	Party included in Annex I to the Convention
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BR	biennial report
CH <sub>4</sub>	methane
CHP	combined heat and power
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> eq	carbon dioxide equivalent
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CTF	common tabular format
DKK	Danish krone(r)
ERT	expert review team
ESD	European Union effort-sharing decision
ESR	European Union effort-sharing regulation
EU	European Union
EU ETS	European Union Emissions Trading System
F-gas	fluorinated gas
GDP	gross domestic product
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
IE	included elsewhere
IFU	Investment Fund for Developing Countries
IPPU	industrial processes and product use
LDC	least developed country
LULUCF	land use, land-use change and forestry
N <sub>2</sub> O	nitrous oxide
NA	not applicable
NC	national communication
NE	not estimated
NF <sub>3</sub>	nitrogen trifluoride
NGO	non-governmental organization
NIR	national inventory report
NMVO	non-methane volatile organic compound
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
NO <sub>x</sub>	nitrogen oxides
ODA	official development assistance
OECD DAC	Development Assistance Committee of the Organisation for Economic Co-operation and Development
PaMs	policies and measures
PFC	perfluorocarbon
reporting guidelines for supplementary information	“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol. Part II: Reporting of supplementary information under Article 7, paragraph 2”
SDG	Sustainable Development Goal

SF <sub>6</sub>	sulfur hexafluoride
SO <sub>2</sub>	sulfur dioxide
UNECE	United Nations Economic Commission for Europe
UNFCCC reporting guidelines on BRs	“UNFCCC biennial reporting guidelines for developed country Parties”
UNFCCC reporting guidelines on NCs	“Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”
WAM	‘with additional measures’
WEM	‘with measures’
WOM	‘without measures’

## I. Introduction and summary

### A. Introduction

1. This is a report on the in-country technical review of the NC8 and BR5 of Denmark. The review was organized by the secretariat in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”, particularly “Part IV: UNFCCC guidelines for the technical review of biennial reports from Parties included in Annex I to the Convention” and “Part V: UNFCCC guidelines for the technical review of national communications from Parties included in Annex I to the Convention” (annex to decision 13/CP.20), and the “Guidelines for review under Article 8 of the Kyoto Protocol” (annex to decision 22/CMP.1 and annex I to decision 4/CMP.1).
2. In accordance with decision 13/CP.20, a draft version of this report was transmitted to the Government of Denmark, which provided comments that were considered and incorporated, as appropriate, with revisions into this final version of the report.
3. The review was conducted from 23 to 27 October 2023 in Copenhagen by the following team of nominated experts from the UNFCCC roster of experts: Daniel Bouille (Argentina), Eric De Brabanter (Luxembourg), Reitumetse Molotsoane (South Africa), Onesphore Mutshail Kavul (Democratic Republic of the Congo) and Tomasz Pawelec (Poland). Daniel Bouille and Eric De Brabanter were the lead reviewers. The review was coordinated by Nalin Srivastava and Pierre Brender (secretariat).

### B. Summary

4. The ERT conducted a technical review of the information reported in the NC8 of Denmark in accordance with the UNFCCC reporting guidelines on NCs,<sup>1</sup> the reporting guidelines for supplementary information, in particular the supplementary information required under Article 7, paragraph 2, and on the minimization of adverse impacts under Article 3, paragraph 14, of the Kyoto Protocol<sup>2</sup> and of the information reported in the BR5 of Denmark in accordance with the UNFCCC reporting guidelines on BRs.<sup>3</sup>

#### 1. Timeliness

5. The NC8 was submitted on 18 August 2023, after the deadline of 31 December 2022 mandated by decision 6/CP.25. The NC8 was resubmitted on 27 August 2023. The resubmission included changes to formatting.
6. Denmark informed the secretariat on 22 December 2022 about its difficulties with making a timely NC8 submission. In accordance with decision 13/CP.20, a Party should inform the secretariat thereof by the due date of the submission in order to facilitate the arrangement of the review process. The ERT noted with great concern the delay in the submission and recommended that Denmark make its next submission on time.
7. The BR5 was submitted on 18 August 2023, after the deadline of 31 December 2022 mandated by decision 6/CP.25. The CTF tables were submitted on 23 August 2023. The BR5 was resubmitted on 27 August 2023. The resubmission included changes to formatting.
8. Denmark informed the secretariat on 22 December 2022 about its difficulties with making a timely BR5 submission. In accordance with decision 13/CP.20, a Party should inform the secretariat thereof by the due date of the submission in order to facilitate the arrangement of the review process. The ERT noted with great concern the delay in the submission.

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<sup>1</sup> Decision 6/CP.25, annex.

<sup>2</sup> Decision 15/CMP.1, annex, and decision 3/CMP.11, annex III.

<sup>3</sup> Decision 2/CP.17, annex.

## 2. Completeness, transparency of reporting and adherence to the reporting guidelines

9. Issues and gaps identified by the ERT related to the information reported by Denmark in its NC8 are presented in tables 1–2. The information reported, including the supplementary information under the Kyoto Protocol, mostly adheres to the UNFCCC reporting guidelines on NCs.

10. Denmark made improvements to the reporting in its NC8 compared with that in its NC7, including by addressing some recommendations and encouragements from the previous review report regarding national circumstances relevant to GHG emissions and removals, PaMs and supplementary information related to the Kyoto Protocol.

Table 1

### Assessment of completeness and transparency of mandatory information reported by Denmark in its eighth national communication

<i>Section of NC</i>	<i>Completeness</i>	<i>Transparency</i>	<i>Reference to description of recommendation</i>
Executive summary	Complete	Transparent	–
National circumstances relevant to GHG emissions and removals	Complete	Transparent	–
GHG inventory	Mostly complete	Mostly transparent	Issues 2–3 in table I.1
PaMs	Mostly complete	Mostly transparent	Issues 6–7 and 9 in table I.2
Projections and the total effect of PaMs	Partially complete	Mostly transparent	Issues 1, 3–5 and 7–8 in table I.3
Vulnerability assessment, climate change impacts and adaptation measures	Complete	Transparent	–
Financial resources and transfer of technology	Mostly complete	Transparent	Issues 1–2 in table I.4
Research and systematic observation	Complete	Transparent	–
Education, training and public awareness	Complete	Transparent	–

*Note:* A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in annex I. The assessment of completeness and transparency by the ERT in this table is based only on the “shall” reporting requirements.

Table 2

### Assessment of completeness and transparency of mandatory supplementary information under the Kyoto Protocol reported by Denmark in its eighth national communication

<i>Supplementary information under the Kyoto Protocol</i>	<i>Completeness</i>	<i>Transparency</i>	<i>Reference to description of recommendation</i>
National system	Complete	Transparent	–
National registry	Complete	Transparent	–
Supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17	Complete	Transparent	–
PaMs in accordance with Article 2	Complete	Transparent	–
Domestic and regional programmes and/or arrangements and procedures	Complete	Transparent	–
Information under Article 10 <sup>a</sup>	Complete	Transparent	–
Financial resources	Complete	Transparent	–
Minimization of adverse impacts in accordance with Article 3, paragraph 14	Complete	Transparent	–

*Note:* A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in annex I. The assessment of completeness and transparency by the ERT in this table is based only on the “shall” reporting requirements.

<sup>a</sup> The assessment refers to information provided by the Party on the provisions contained in Article 4, paras. 3, 5 and 7, of the Convention, as reported under Article 10 of the Kyoto Protocol, which is relevant to Parties included in Annex II to the Convention only. An assessment of the information on the other provisions of Article 10 of the Kyoto Protocol is provided under the relevant substantive headings under the Convention, for example research and systematic observation.

11. Issues and gaps identified by the ERT related to the information reported by Denmark in its BR5 are presented in table 3. The information reported mostly adheres to the UNFCCC reporting guidelines on BRs.

12. The ERT noted that Denmark made improvements to the reporting in its BR5 compared with that in its BR4, by addressing some recommendations and encouragements from the previous review report in the area of projections.

Table 3

**Summary of completeness and transparency of mandatory information reported by Denmark in its fifth biennial report**

<i>Section of BR</i>	<i>Completeness</i>	<i>Transparency</i>	<i>Reference to description of recommendation</i>
GHG emissions and removals	Mostly complete	Transparent	Issue 2 in table II.1
Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies	Complete	Mostly transparent	Issue 1 in table II.2
Progress in achievement of targets	Mostly complete	Mostly transparent	Issue 1 in table II.4 Issues 1, 3 and 4 in table II.5
Provision of support to developing country Parties	Mostly complete	Partially transparent	Issues 1, 2, 4, 5 and 6 in table II.6

*Note:* A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in annex II. The assessment of completeness and transparency by the ERT in this table is based only on the “shall” reporting requirements.

## **II. Technical review of the information reported in the eighth national communication and fifth biennial report**

### **A. National circumstances relevant to greenhouse gas emissions and removals**

#### **1. Technical assessment of the reported information**

13. The NC8 contains key data on legislation, population trends, geography and land use, climate and climate change, economic developments, energy, transport, the buildings sector, industry, trade, the services sector, agriculture, forestry, resource efficiency and wastewater.

14. The territory of the Kingdom of Denmark comprises Denmark, Greenland and the Faroe Islands. The Convention has been ratified on behalf of all three parts of the Kingdom. The Constitutional Act of the Realm of Denmark sets out the legal basis for the Regent to act on behalf of the Kingdom of Denmark in international affairs.

15. Denmark’s population of around 5.9 million is largely concentrated in cities. It has been growing moderately since 1990 and is expected to reach 6.0 and 6.3 million in 2030 and 2050 respectively. Denmark’s land area largely comprises lowland. More than 60 per cent of land is used for agriculture or horticulture, with the remaining area comprising inhabited areas, woodlands and other natural areas.

16. Denmark has an open economy, which is dominated by trade. In 1990–2021 the economy grew at an average annual growth rate of 1.7 per cent. GDP per capita is around USD 60,000. In 2021, GDP grew by 4.9 per cent. The most important economic sectors are

services, trade, transport and communication, raw materials, industry and energy, which together represent nearly 80 per cent of GDP.

17. Emissions for the energy sector, primarily CO<sub>2</sub> emissions, accounted for some 66 per cent of Denmark's total GHG emissions (excluding LULUCF) in 2021. Primary energy sources include crude oil, natural gas, renewable energy (including renewable waste) and non-renewable waste. In 2021, primary energy production was 399 PJ and was made up of oil (35 per cent), natural gas (13 per cent), renewable energy (48 per cent) and non-renewable waste (4 per cent). Primary energy production peaked at 1,312 PJ in 2005 and has since decreased owing to a decline in the production of oil and gas in the North Sea. In 2021, Denmark's total annual energy consumption was 705 PJ, which is made up of oil (35 per cent), natural gas (12 per cent), coal (8 per cent), waste (3 per cent) and renewable energy sources (42 per cent). Since 2011, Denmark has been a net importer of energy as a result of the decrease in production of oil and gas in the North Sea.

18. Total primary energy consumption remained largely unchanged (800–900 PJ) between 1980 and 2011 but has decreased to below 800 PJ since 2011 owing to energy saving, adoption of renewable energy and net import of electricity. Electricity imports constitute 4 per cent of primary energy consumption. This has an impact on GHG emissions.

19. The GHG emissions of Greenland and the Faroe Islands are low compared with those of Denmark (each contributing about 1 per cent of total emissions) and have been largely constant since 1990.

## **2. Assessment of adherence to the reporting guidelines**

20. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs. There were no issues raised during the review relating to the topics discussed in this chapter of the review report.

## **B. Greenhouse gas inventory information<sup>4</sup>**

### **1. Technical assessment of the reported information**

21. Denmark reported information in its BR5 and NC8 on its inventory arrangements and historical GHG emissions using GWP values from the AR4. More recent information on GHG emissions was reported in Denmark's 2023 inventory submission, for which GWP values from the AR5 were used. Total GHG emissions<sup>5</sup> excluding emissions and removals from LULUCF decreased by 38.7 per cent between 1990 and 2020, while total GHG emissions including net emissions or removals from LULUCF decreased by 40.1 per cent over the same period. Emissions peaked in 1996 and decreased thereafter. The changes in total emissions were driven mainly by factors such as a shift from coal to natural gas and biomass in the power sector, increased use of wind and solar power generation and use of district heating systems. Emissions were also influenced by the changes in the level of production and structural changes in industry. Relevant regulations regarding the ban on landfilling of combustible waste, use of fertilizers and F-gases also influenced the overall trend. In 2020, emissions were further driven down as a result of the coronavirus disease 2019 pandemic, particularly in the transport sector (8.4 per cent decrease compared with 2019). However, emissions in 2020–2021 increased by 2.3 per cent.

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<sup>4</sup> GHG emission data in this section, for which GWP values from the AR5 were used, are based on Denmark's 2023 inventory submission (version 2) for the whole territory of Denmark, comprising Denmark, Greenland and the Faroe Islands, which has not yet been subject to review. All emission data in subsequent chapters are based on Denmark's BR5 CTF tables, for which GWP values from the AR4 were used and cover Denmark only, without Greenland and the Faroe Islands, unless otherwise noted.

<sup>5</sup> In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of CO<sub>2</sub> eq excluding LULUCF and including indirect CO<sub>2</sub> emissions, unless otherwise specified.



22. Table 4 illustrates the emission trends by sector and by gas for Denmark. The emissions reported in the 2023 annual submission differ from the data reported in CTF table 1 in that the emissions in CTF table 1 are based on the 2022 inventory submission, for which GWP values from the AR4 were used. The estimates reported in Denmark's 2023 inventory submission differ from those in the 2022 submission as they have been recalculated. This has resulted in an increase in estimated total emissions without LULUCF of 0.5 per cent for 1990 and 2.1 per cent 2020. For the estimated total emissions with LULUCF, the increase was 0.5 per cent and 2.4 per cent respectively.<sup>6</sup>

Table 4

**Greenhouse gas emissions by sector and by gas for Denmark for 1990–2021**

Sector	GHG emissions (kt CO <sub>2e</sub> eq)					Change (%)		Share (%)	
	1990	2000	2010	2020	2021	1990–2020	2020–2021	1990	2021
1. Energy	53 699.69	54 906.58	50 689.46	28 803.63	30 149.36	–46.4	4.7	74.8	66.2
A1. Energy industries	26 529.25	26 362.04	24 508.90	7 633.42	8 608.54	–71.2	12.8	36.9	18.9
A2. Manufacturing industries and construction	5 819.29	6 159.72	4 618.60	3 840.48	3 919.97	–34.0	2.1	8.1	8.6
A3. Transport	10 956.61	12 600.25	13 556.70	12 201.89	12 478.47	11.4	2.3	15.3	27.4
A4. and A5. Other	9 904.52	8 742.05	7 439.98	4 939.34	4 969.95	–50.1	0.6	13.8	10.9
B. Fugitive emissions from fuels	490.03	1 042.53	565.28	188.50	172.43	–61.5	–8.5	0.7	0.4
C. CO <sub>2</sub> transport and storage	NO	NO	NO	NO	NO	NA	NA	NA	NA
2. IPPU	2 126.17	3 562.72	1 905.51	1 983.78	1 934.13	–6.7	–2.5	3.0	4.2
3. Agriculture	13 995.78	12 774.00	12 183.85	12 485.85	12 171.55	–10.8	–2.5	19.5	26.7
4. LULUCF	6 931.02	5 203.38	2 553.16	3 137.96	2 456.35	–54.7	–21.7	NA	NA
5. Waste	1 999.29	1 419.15	1 078.63	1 210.54	1 260.54	–39.5	4.1	2.8	2.8
6. Other <sup>a</sup>	NO	NO	NO	NO	NO	NA	NA	NA	NA
<i>Gas<sup>b</sup></i>									
CO <sub>2</sub>	54 771.40	55 641.44	50 717.51	29 965.92	31 306.35	–45.3	4.5	76.3	68.8
CH <sub>4</sub>	9 161.07	9 632.02	9 015.27	8 613.04	8 644.70	–6.0	0.4	12.8	19.0
N <sub>2</sub> O	7 844.76	6 572.24	5 248.36	5 464.92	5 192.77	–30.3	–5.0	10.9	11.4
HFCs	NO, NE, NA	735.35	828.40	392.05	356.19	NA	–9.1	NA	0.8
PFCs	NO, NA	22.75	9.63	0.01	0.01	NA	3.2	NA	0.0
SF <sub>6</sub>	43.71	58.66	38.28	47.87	15.57	9.5	–67.5	0.1	0.0
NF <sub>3</sub>	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NA	NA	NA	NA
<b>Total GHG emissions excluding LULUCF</b>	<b>71 820.94</b>	<b>72 662.45</b>	<b>65 857.45</b>	<b>44 483.80</b>	<b>45 515.58</b>	<b>–38.1</b>	<b>2.3</b>	<b>100.0</b>	<b>100.0</b>
<b>Total GHG emissions including LULUCF</b>	<b>78 751.96</b>	<b>77 865.83</b>	<b>68 410.61</b>	<b>47 621.76</b>	<b>47 971.93</b>	<b>–39.5</b>	<b>0.7</b>	<b>NA</b>	<b>NA</b>
<b>Total GHG emissions excluding LULUCF, including indirect CO<sub>2</sub></b>	<b>72 940.99</b>	<b>73 501.23</b>	<b>66 348.39</b>	<b>44 725.34</b>	<b>45 761.00</b>	<b>–38.7</b>	<b>2.3</b>	<b>NA</b>	<b>NA</b>
<b>Total GHG emissions including LULUCF, including indirect CO<sub>2</sub></b>	<b>79 872.01</b>	<b>78 704.60</b>	<b>68 901.55</b>	<b>47 863.30</b>	<b>48 217.35</b>	<b>–40.1</b>	<b>0.7</b>	<b>NA</b>	<b>NA</b>

Source: GHG emission data: Denmark's 2023 annual submission, version 2.

<sup>a</sup> Emissions and removals reported under the sector other (sector 6), which are reported as "NO", are not included in total GHG emissions.

<sup>b</sup> Emissions by gas without LULUCF and excluding indirect CO<sub>2</sub> emissions.

<sup>6</sup> This comparison is in relation to the GHG emissions of Denmark reported in the annual GHG inventory submission.

23. In brief, on behalf of the Ministry of Climate, Energy and Utilities, the Danish Centre for Environment and Energy is responsible for preparing Denmark's GHG inventories. This is done in cooperation with ministries, research institutes, organizations and private enterprises through specific agreements on data supply or on the basis of requirements under the Environment Protection Act. The Centre is also responsible for the annual reporting of the GHG inventory under the Convention, and it is the designated single national entity under the Kyoto Protocol. It receives data from Greenland and the Faroe Islands that enable it to report for the whole territory of Denmark on the basis of written data agreements with Greenland and the Faroe Islands. The Government of Greenland is responsible for finalizing and transferring the GHG inventory for Greenland to the Centre and the Environment Agency of the Faroe Islands is responsible for finalizing and transferring the inventory for the Faroe Islands. The Ministry of Climate, Energy and Utilities is responsible for approving Denmark's inventories. There have been no changes in these arrangements since the BR4.

## **2. Assessment of adherence to the reporting guidelines**

24. The ERT assessed the information reported in the NC8 and BR5 of Denmark and identified issues relating to completeness and transparency, and thus adherence to the UNFCCC reporting guidelines on NCs and the UNFCCC reporting guidelines on BRs. The findings are described in tables I.1 and II.1.

## **3. National system for the estimation of anthropogenic emissions by sources and removals by sinks**

### **(a) Technical assessment of the reported information**

25. Denmark provided in the NC8 a description of how its national system for the estimation of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol is performing the general and specific functions defined in the annex to decision 19/CMP.1 in conjunction with decisions 3/CMP.11 and 4/CMP.11. The description includes all of the elements mandated by paragraph 30 of the annex to decision 15/CMP.1. The NC8 also contains a reference to the description of the national system provided in the NIR of the 2022 annual submission. The ERT took note of the review of the changes to the national system reflected in the report on the individual review of the 2022 annual submission of Denmark

### **(b) Assessment of adherence to the reporting guidelines**

26. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

## **4. National registry**

### **(a) Technical assessment of the reported information**

27. In its NC8 Denmark provided information on how its national registry performs the functions in accordance with the annex to decision 13/CMP.1 in conjunction with decision 3/CMP.11 and the annex to decision 5/CMP.1 and complies with the requirements of the technical standards for data exchange between registry systems. The ERT took note of the review of the changes to the national registry reflected in the report on the individual review of the 2022 annual submission of Denmark.

### **(b) Assessment of adherence to the reporting guidelines**

28. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

## C. Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies

### 1. Technical assessment of the reported information

29. Denmark reported information on its economy-wide emission reduction target in its BR5. For Denmark the Convention entered into force on 21 March 1994. Under the Convention Denmark committed to contributing to the achievement of the joint EU economy-wide emission reduction target of 20 per cent below the 1990 level by 2020.<sup>7</sup>

30. The 2020 target for the EU and its member States was formalized in the EU 2020 climate and energy package. The legislative package regulated emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub> using GWP values from the AR4 to aggregate the GHG emissions of the EU until 2020. Emissions and removals from the LULUCF sector were not included in the quantified economy-wide emission reduction target for 2020 under the Convention.

31. The EU-wide targets for 2020 under the Convention and for 2013–2020 under the Kyoto Protocol were primarily implemented through the EU ETS and ESD. The EU ETS covers mainly point emissions sources in the energy, industry and aviation sectors. An EU-wide emission cap was put in place for 2013–2020 for the EU ETS with the goal of reducing emissions by 21 per cent below the 2005 level by 2020. For 2030, a reduction target of 62 per cent below the 2005 level has been set for emissions covered by the EU ETS. The ESD was operational in the target years 2013–2020 and covered sectors outside the EU ETS, including transport (excluding aviation and international maritime transport), residential and commercial buildings, agriculture, small industry and waste. The ESD was regulated through targets for each member State that added up to a reduction at the EU level of 10 per cent below the 2005 level by 2020. The ESR, the successor to the ESD, was adopted in 2018 and amended in 2023 with the target of reducing emissions covered under the ESR by 40 per cent below the 2005 level by 2030.

32. For 2013–2020, the EU generally allowed its member States to use units from the Kyoto Protocol mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. Operators and airline operators could use such units to fulfil their requirements under the EU ETS, and member States could use such units for their national ESD targets, within specific limitations.

33. The European Commission set out its vision for a climate-neutral EU in November 2018, and in December 2019 presented the European Green Deal as a road map with actions for making the EU economy sustainable. The European Council endorsed in December 2019 the objective of making the EU climate-neutral by 2050. As part of the European Green Deal, the 2050 climate-neutrality target was made binding in the first European Climate Law, adopted in 2021. It also increased the ambition of the 2030 emission reduction target to at least 55 per cent below the 1990 level. Member States will set out any increased ambition in the update of their national energy and climate plans.

34. Denmark has a national target of reducing its emissions to 20 per cent below the 2005 level by 2020 for ESD sectors. This target has been translated into binding quantified AEAs for 2013–2020. Denmark's AEAs change following a path from 36,829.16 kt CO<sub>2</sub> eq in 2013 to 32,063.05 kt CO<sub>2</sub> eq in 2020.<sup>8</sup> Under the ESR, Denmark has a national target of reducing emissions from covered sectors to 39 per cent below the 2005 level by 2030.

35. The 2020 Danish Climate Act has a target of reducing GHG emissions by 70 per cent relative to the 1990 level by 2030 and a long-term objective to achieve net zero emissions by no later than 2050. It also has a short-term target of reducing GHG emissions by 50–54 per cent by 2025. The Government has proposed bringing forward the goal of climate neutrality to 2045 and setting a new goal of a reduction in GHG emissions of 110 per cent by 2050 relative to the 1990 level.<sup>9</sup>

<sup>7</sup> This commitment does not apply to Greenland and Faroe Islands.

<sup>8</sup> According to the EU transaction log.

<sup>9</sup> The targets mentioned in paragraph 35 do not apply to Greenland and the Faroe Islands.

## 2. Assessment of adherence to the reporting guidelines

36. The ERT assessed the information reported in the BR5 of Denmark and identified an issue relating to transparency, and thus adherence to the UNFCCC reporting guidelines on BRs. The finding is described in table II.2.

## D. Information on policies and measures

### 1. Technical assessment of the reported information

37. Denmark provided in its NC8 and BR5 information on its PaMs<sup>10</sup> implemented and adopted to fulfil its commitments under the Convention. As explained in its NC8, Denmark does not report planned PaMs because only the Government and the Parliament, and not the administration, can judge and decide whether any additional PaMs, once analysed, have a realistic chance of being adopted. Owing to the adoption of the Danish Climate Act and its annual cycle (see para. 38 below), the set of PaMs reported in the BR5 differs significantly from that previously reported, because of the inclusion of a large number of new PaMs and exclusion of those discontinued since the BR4 (comprising mostly expired PaMs and those replaced by new PaMs).

38. Denmark reported on its policy context and legal and institutional arrangements in place for implementing its commitments and monitoring and evaluating the effectiveness of its PaMs. Denmark provided information on changes to its institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of progress towards its target. One of the most significant changes is the adoption of the Danish Climate Act by the Danish Parliament in 2020, which has set an ambitious direction for Denmark’s climate policy and diplomacy in an international context. The Danish Climate Act also proposes ambitious targets to reduce national GHG emissions (see para. 35 above). The Climate Act establishes a fixed annual cycle for Danish climate policy by requiring the Government to work towards achieving the climate policy objectives. The Danish Climate Council advises the Government on climate policy within the annual cycle. The Ministry of Climate, Energy and Utilities then presents an annual climate status and outlook report, followed by an annual climate programme, which includes an assessment of whether the national climate targets are likely to be met. If not, new initiatives with short- and long-term emission reduction effects are proposed. The climate programme is also submitted to the Danish Parliament to be considered in the deliberations on the Finance Act and for it to assess whether the Government’s initiatives are sufficient to achieve the targets.

39. Denmark’s assessment of the economic and social consequences of its response measures includes endeavouring to implement its national PaMs in a way that minimizes adverse effects on other countries. However, owing to its small size, Denmark considers that its contributions to international climate efforts have no adverse effects on other countries. In fact, the reduction of Denmark’s GHG emissions will contribute to limiting dangerous climate change in all countries around the world.

40. During the review, Denmark explained that no specific analyses have been carried out to identify its own policies and practices that encourage activities that lead to greater levels of emissions than would otherwise occur. The Party also explained that the PaMs to be adopted by the Parliament to achieve the national targets set out in the Danish Climate Act must also consider the increase in GHG emissions that can be expected from general economic development, which are reflected in the annually updated WEM projections. Thus, any shortfall in meeting the target incorporates the effects of any changes or decisions that will increase Denmark’s GHG emissions. By following this approach, the Government and Parliament must adopt emission-reducing measures to compensate for any measures that lead to an increase in emissions. The Party also stated that all new legislation will be assessed to see whether it has a negative effect on GHG emissions.

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<sup>10</sup> The UNFCCC reporting guidelines on BRs use the term “mitigation actions”, whereas the UNFCCC reporting guidelines on NCs use the term “policies and measures”. The terms are used interchangeably in this report to refer to the relevant information in either the NC or BR.

41. In its reporting on PaMs, Denmark did not provide the estimated emission reduction impacts for any of its PaMs. Denmark explained in its NC8 and during the review that estimated impacts were not provided for any of its PaMs because the effects of all individual mitigation measures were not estimated in a comparable way. The WEM projection scenario in Denmark is not calculated on the basis of the sum of the impacts of individual mitigation measures, but is based on integrated models. As a result, it is not possible to attribute the total estimated impacts of the policies modelled in the WEM scenario to the individual mitigation measures considered for the WEM scenario.

42. The key overarching related cross-sectoral policy in the EU is the 2020 climate and energy package, adopted in 2009, which includes the revised EU ETS and the ESD. The package is supplemented by renewable energy and energy efficiency legislation and legislative proposals on the 2020 targets for CO<sub>2</sub> emissions from cars and vans, the carbon capture and storage directive, and the general programmes for environmental conservation, namely the 7<sup>th</sup> Environment Action Programme and the clean air policy package. The 2021 European Climate Law, which forms part of the European Green Deal, made climate neutrality by 2050 legally binding and raised the EU-wide 2030 emissions reduction target to at least 55 per cent compared with the 1990 level. In 2023, the EU adopted several pieces of legislation that were part of the “Fit for 55” package intended to help achieve the new 2030 target. These new laws strengthened both the ESR and EU ETS 2030 targets, extended the EU ETS to include maritime shipping in 2024 and established the Social Climate Fund to address equitability of mitigation impacts. They also created the EU ETS 2 to cover at the point of distribution most fuel used in sectors not covered by the EU ETS, beginning in 2027.

43. The 2021–2030 EU-wide policies are operationalized through the national energy and climate plans of EU member States, which should set out national objectives for each of the five dimensions of the Energy Union, namely energy security; the internal energy market; energy efficiency; decarbonization; and research, innovation and competitiveness. The national energy and climate plans are periodically updated to reflect changes to EU policy, such as the implementation of the European Green Deal. The draft update of Denmark’s national energy and climate plan, submitted to the European Commission in June 2023, reaffirms the ambitious targets for reducing the country’s GHG emissions (see para. 35 above). It contains the same key measures as those presented in the NC8 and BR5 for decarbonization and energy efficiency dimensions (see paras. 44–45 below), supplemented by specific measures for its other dimensions, namely energy security; internal energy market; and research, innovation and competitiveness, which includes the green research presented in the NC8 and BR5 (see para. 45 below).

44. Denmark introduced national-level policies to achieve its targets under the ESD and the ESR and domestic emission reduction targets. The key policies reported are the Danish Climate Act, the 2018 Energy Agreement and the 2020 Climate Agreement for Energy and Industry. These measures primarily include taxes and incentives to promote energy saving and efficiency, as well as the use of renewable energy. The 2018 Energy Agreement is aimed at achieving a 55 per cent share of renewable energy sources and a coal phase-out by 2030. Other PaMs aimed at achieving significant emission reductions include the installation of offshore wind turbines; the registration tax on new motor vehicles together with the semi-annual vehicle ownership tax; the Long-term Renovation Strategy (adopted in June 2021 as part of the EU energy performance of buildings directive), which promotes energy efficiency in the national building stock and includes non-binding indicative milestones for reducing final energy consumption and calculated energy consumption for households for 2030, 2040 and 2050, based on agreements such as the 2020 Climate Agreement for Energy and Industry and the 2020 Green Housing Agreement; and measures promoting heat pumps, including support schemes under the 2020 Climate Agreement for Energy and Industry and the 2016 Heat Pumps as an Energy Service Initiative, which incentivizes energy companies to install, finance, operate and maintain heat pumps in smaller residential and commercial buildings in areas without natural gas or district heating supplies.

45. Other measures include taxes on F-gas emissions and on CH<sub>4</sub> produced by natural gas fired power plants; promoting alternatives to F-gases and promoting carbon capture, utilization and storage; the 2021 agreement on a green transition of the agriculture sector, with a binding 55–65 per cent reduction target for the AFOLU sector by 2030 relative to the

1990 level (including initiatives to reduce nitrogen in agricultural practices and new measures in the context of the restructuring of the EU Common Agricultural Policy, such as eco-schemes); measures to reduce CH<sub>4</sub> leakage from biogas production in order to move towards zero incineration of recyclable waste; measures aimed at the restoration of wetlands and peat soils and support schemes for afforestation; and green research to address climate challenges and contribute to the goals of the Danish Climate Act.

46. Denmark highlighted the domestic mitigation actions that are under development but are not listed as planned PaMs, such as those being revised to align with the more ambitious 2030 target of the EU to reduce domestic emissions by at least 55 per cent compared with the 1990 level, as well as with the national targets of a 50–54 per cent reduction in emissions by 2025 and climate neutrality by 2045. Among the mitigation measures that provide a foundation for significant additional action are the agreements to implement various measures reached since the adoption of the Danish Climate Act, including the green tax reform adopted in 2022, which aims at a more uniform CO<sub>2</sub> tax structure from 2025; and measures aiming at a fivefold increase in offshore wind energy by 2030 and a fourfold increase in onshore renewables (solar panels, onshore wind). Denmark aims to increase the use of land-based renewable energy to replace biomass imported for energy purposes. In other sectors, measures under development include the revision of the climate plan for promoting a green waste sector and circular economy, a fund for promoting plant-based food, a reform of the 2021 agreement on a green transition of the agriculture sector, and the introduction of a CO<sub>2</sub> tax in the agriculture sector. Table 5 provides a summary of the reported information on the PaMs of Denmark.

Table 5  
**Summary of information on policies and measures reported by Denmark**

<i>Sector</i>	<i>Key PaMs</i>	<i>Estimated mitigation impact in 2020 (kt CO<sub>2</sub> eq)</i>	<i>Estimated mitigation impact in 2030 (kt CO<sub>2</sub> eq)</i>	
Cross-sectoral measures	EU ETS	NE	NE	
	2020 Danish Climate Act	NA	NA	
	2018 Energy Agreement	NE	NE	
	CO <sub>2</sub> tax on energy carriers	NE	NE	
	Green tax reform	NA	NE	
	Measures promoting carbon capture, utilization and storage	NE	NE	
Energy	Energy efficiency	2020 Climate Agreement for Energy and Industry	NA	NE
		2020 Green Housing Agreement	NA	NE
		2016 Heat Pumps as an Energy Service Initiative	NE	NE
		2021 Long-term Renovation Strategy	NA	NE
	Energy supply and renewable energy	Offshore wind turbines (energy islands)	NE	NE
		Onshore renewables (solar panels, wind turbines)	NE	NE
		Increasing national production of biogas and biomass	NE	NE
		Green heating and gas	NE	NE
		Power-to-X <sup>a</sup> strategy and political agreement	NA	NE
		Tax on CH <sub>4</sub> from natural gas fired power plants	NE	NE
Transport	EU regulations on CO <sub>2</sub> emissions from vehicles	NE	NE	
	Restructuring of registration tax on new motor vehicles	NA	NE	

<i>Sector</i>	<i>Key PaMs</i>	<i>Estimated mitigation impact in 2020 (kt CO<sub>2</sub> eq)</i>	<i>Estimated mitigation impact in 2030 (kt CO<sub>2</sub> eq)</i>
	Charging infrastructure for cars and light-duty vehicles and alternative fuels infrastructure for heavy-duty vehicles	NA	NE
	Implementing a kilometre-based and CO <sub>2</sub> -differentiated road toll for heavy-duty vehicles	NA	NE
IPPU	Taxes and national regulation on F-gases	NE	NE
AFOLU <sup>b</sup>	Agreement on the greening of agriculture (nitrogen reduction, eco-schemes)	NE	1 900
	CO <sub>2</sub> tax on agricultural activities	NA	NE
	Fund for plant-based food	NA	NE
	Restoration of wetlands and peat soils, afforestation	NA	300
	Climate Forest Fund	NA	NA
Waste	Streamlining and mandatory collection schemes for household waste	NA	NE
	Moving towards zero incineration of recyclable waste	NA	NE
	Biocover systems on landfills	NE	NE
	Revision of the climate plan for a green waste sector and circular economy	NA	NE

*Note:* Denmark has not estimated the mitigation impacts of the PaMs reported in the NC8 and the BR5.

<sup>a</sup> “Power-to-X” refers to technologies that convert electricity into carbon-neutral synthetic fuels, such as hydrogen, synthetic natural gas, liquid fuels or chemicals.

<sup>b</sup> The impacts in 2030 of mitigation actions in the AFOLU sector are estimated on the basis of information provided by the Party during the review. The total mitigation impact in 2030 of PaMs in the AFOLU sector is estimated at 2,400 kt CO<sub>2</sub> eq.

47. Apart from the CO<sub>2</sub> tax on various types of energy products introduced in 1992, there are several energy taxes whose rates per energy unit have increased in recent decades, including those on mineral oil, natural gas and town gas, coal and lignite. However, taxes per kilowatt-hour of electricity used for heating have decreased to promote an increase in the share of renewable energy in electricity production. In the transport sector, important measures include the registration tax on new motor vehicles, which depends on the value of the car and its CO<sub>2</sub> emissions per kilometre and can amount to 150 per cent of the vehicle price once it exceeds DKK 210,600, and the semi-annual vehicle ownership tax. Denmark is also raising taxes on F-gas emissions and on CH<sub>4</sub> produced by natural gas fired power plants. Of all these green taxes, the highest revenues come from energy taxes on fossil fuels and on heating from waste, and taxes on vehicles and transport (around 73 per cent of total green tax revenues in 2022). A presentation by the Ministry of Taxation during the review indicated the CO<sub>2</sub> tax alone accounts for just over 5 per cent of the total revenue.

48. Denmark reported on the PaMs implemented by Greenland and the Faroe Islands in both the NC8 and the BR5, including in a tabular format for the Faroe Islands but not for Greenland. Given the high demand for basic energy and the expected development of the industrial sector, Greenland’s energy consumption is unlikely to decrease significantly in the coming years. To address this, a number of energy policies and acts have been introduced aimed at reducing emissions and improving energy efficiency, including the 1997 Energy Supply Act, focusing on energy conservation, efficiency and environmentally friendly energy production, and the 2021 Hydropower Construction Act, which provides for the expansion of an existing hydropower plant and the construction of a new one in Disko Bay. Recently, Greenland announced a tender for large hydropower potentials and the expansion of another hydropower plant. A new sectoral plan for the energy sector is planned for 2025, targeting combined heat and power plants and supply networks as well as the renovation of buildings. Other initiatives include an environmental tax on fossil fuels (from 2011), a vehicle tax on heavy-duty vehicles (from 2013), lower taxes on electric and hybrid vehicles (from 2019),

the suspension of all oil exploration activities (decided in 2021) and the construction of two modern nationwide waste incineration plants, which are expected to be completed in 2024.

49. The Faroe Islands climate policy was first formulated in 2008 with a climate strategy and action plan including measures to reduce emissions from heating, electricity production and land transport. A new climate and energy policy for 2022–2032, adopted by the Parliament of the Faroe Islands in May 2022, includes 25 measures to reduce GHG emissions by 50 per cent by 2032 compared with the 2019 level. These measures include the construction of more wind farms and solar power plants, the electrification of heating, transport and industry (by reducing the tax on electric cars and heat pumps, banning oil boilers in new buildings and supporting the removal of oil boilers in existing buildings). Other measures include a CO<sub>2</sub> tax on oil, the promotion of energy-efficient ships and the phasing out of F-gases (particularly in the refrigeration of fishing vessels), the restoration of wetlands and the production of hydrogen as a fuel and related Power-to-X technologies.

## **2. Assessment of adherence to the reporting guidelines**

50. The ERT assessed the information reported in the NC8 and BR5 of Denmark and identified issues relating to completeness and transparency, and thus adherence to the UNFCCC reporting guidelines on NCs and the UNFCCC reporting guidelines on BRs. The findings are described in tables I.2 and II.3.

## **3. Domestic and regional programmes and legislative arrangements and procedures related to the Kyoto Protocol**

### **(a) Technical assessment of the reported information**

51. In its NC8 Denmark reported that the implementation of the Kyoto Protocol is underpinned by its national climate strategy, together with sector-specific policy strategies with climate considerations and the legislation necessary to implement them. The overall responsibility for climate change policymaking lies with the Ministry of Climate, Energy and Utilities, and a number of national institutions are involved in policy implementation. The Danish Centre for Environment and Energy at Aarhus University has been designated the single national entity under the Kyoto Protocol.

52. For the second commitment period of the Kyoto Protocol, from 2013 to 2020, Denmark committed to contributing to the joint EU effort to reduce GHG emissions by 20 per cent below the base-year level (see paras. 29–31 above).

53. The Party has arrangements and enforcement procedures to meet its commitments under the Kyoto Protocol, including procedures for addressing non-compliance. The Regent delegates the responsibility for various functions to government ministers through royal resolutions, including for proposing and enforcing legislation and for establishing the necessary administrative procedures to implement the Kyoto Protocol.

54. Denmark has provisions in place to make information on legislative arrangements and administrative procedures related to compliance and enforcement publicly accessible, such as by making the total set of regulations (in Danish) accessible through an online legal information system.

55. Denmark has national legislative arrangements and administrative procedures in place that seek to ensure that the implementation of activities under Article 3, paragraph 3, and any elected activities under Article 3, paragraph 4, of the Kyoto Protocol also contributes to the conservation of biodiversity and the sustainable use of natural resources. One of the primary objectives of the Forest Act is the preservation of areas designated as forest reserve land and the protection of natural habitats of species. Activities under Article 3, paragraphs 3–4, of the Kyoto Protocol are implemented in accordance with Natura 2000 and comprise special areas of conservation designated under the EU habitats directive and the special protection areas designated under the EU birds directive. The sites designated under the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat are included in the special protection areas. The Ministry of Environment has the overall responsibility for the implementation of the habitats and birds directives as per the relevant rules. Similar rules are



integrated in legislation relevant to other ministries (e.g. fisheries and constructions in marine areas).

**(b) Assessment of adherence to the reporting guidelines**

56. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

**4. Policies and measures in accordance with Article 2 and minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol**

**(a) Technical assessment of the reported information**

57. In the NC8, Denmark reported that it strives to implement PaMs under Article 2 of the Kyoto Protocol in such a way as to minimize adverse effects, including the effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties. Denmark does not consider that its PaMs have adverse effects on other countries; on the contrary, the reduction in emissions through the fulfilment of Danish commitments under the Kyoto Protocol will in fact contribute to limiting dangerous climate change in all countries.

58. The NC8 includes information on how Denmark promotes and implements the decisions of the International Civil Aviation Organization and the International Maritime Organization to limit emissions from aviation and marine bunker fuels. Denmark emphasized the need to enhance the measures taken by the International Civil Aviation Organization, including by adopting more ambitious definitions and targets for sustainable aviation fuels and by strengthening CORSIA. Denmark further highlighted that the recent Fit for 55 revision of the EU ETS directive envisages extending the application of the EU ETS to departing flights from countries within the European Economic Area to countries outside it from January 2027 if the International Civil Aviation Organization Assembly does not by 2025 strengthen the CORSIA scheme in line with achieving its long-term aspirational global goal for international aviation of net zero carbon emissions by 2050 in support of the Paris Agreement objectives, or if countries participating in CORSIA represent less than 70 per cent of international aviation emissions. Denmark has contributed actively to both preparing and negotiating the 2023 International Maritime Organization Strategy on Reduction of GHG Emissions from Ships with a view to strengthening the levels of ambition of international shipping in line with the temperature goal of the Paris Agreement. Denmark will further contribute actively to the implementation of the International Maritime Organization strategy and the development of an effective and enforceable global climate regulation.

59. Further information on how Denmark strives to implement its commitments under Article 3, paragraph 14, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties was reported in the 2022 annual submission. Denmark indicated that no changes have occurred since the 2011 NIR, in which it reported on how the EU is striving to minimize adverse impacts. The Party prioritized, among other actions, phasing out market imperfections (e.g. fiscal incentives, tax exemptions, subsidies) in all GHG-emitting sectors, removing subsidies associated with environmentally unsound and unsafe technologies, cooperating in the technological development of non-energy use of fossil fuels, cooperating in the development, diffusion and transfer, especially to the least developed countries, of lower-carbon fossil fuel technologies and the capture and storage of GHGs, and strengthening the capacities in developing countries towards a more efficient use of fossil fuels.

**(b) Assessment of adherence to the reporting guidelines**

60. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

**E. Estimates of emission reductions and removals and the use of units from market-based mechanisms and land use, land-use change and forestry and progress in achieving the quantified economy-wide emission reduction target**

**1. Technical assessment of the reported information**

61. Denmark reported in its BR5 that it did not use units from market-based mechanisms under the Kyoto Protocol and other market-based mechanisms under the Convention to meet its commitment under the ESD. It reported in CTF tables 4 and 4(b) that it did not use any units from market-based mechanisms in 2019 or 2020. Given that the contribution of LULUCF activities is not included in the joint EU target under the Convention, reporting thereon is not applicable to Denmark. Table 6 illustrates Denmark’s ESD emissions and use of units from market-based mechanisms for achieving its ESD target.

Table 6

**Summary of information on emissions covered by the European Union effort-sharing decision annual emission allocation and use of units from market-based mechanisms by Denmark**

(kt CO<sub>2</sub> eq)

<i>Year</i>	<i>ESD emissions</i>	<i>AEA</i>	<i>Use of units from market-based mechanisms</i>	<i>AEAs transferred to (-) or from (+) other Parties</i>	<i>Annual AEA surplus/deficit</i>	<i>Cumulative AEA surplus/deficit</i>
2013	33 705.94	36 829.16	NA	NA	3 123.23	3 123.23
2014	32 643.51	35 925.17	NA	NA	3 281.66	6 404.88
2015	32 520.22	35 021.18	NA	NA	2 500.96	8 905.84
2016	33 124.68	34 117.19	NA	NA	992.51	9 898.35
2017	32 676.91	34 775.64	NA	NA	2 098.73	11 997.09
2018	33 142.44	33 871.44	NA	NA	729.00	12 726.09
2019	32 050.59	32 967.25	NA	NA	916.65	13 642.74
2020	30 835.29	32 063.05	NA	NA	1 227.76	14 870.50

Sources: Denmark’s BR5 and BR5 CTF table 4(b), and EU transaction log (AEAs), which use GWP values from the AR4.

Note: For a given year, a positive number (surplus) indicates that annual or cumulative ESD emissions were lower than the corresponding AEA or cumulative AEAs, while a negative number (deficit) indicates that annual or cumulative ESD emissions were higher than the corresponding AEA or cumulative AEAs.

**2. Assessment of adherence to the reporting guidelines**

62. The ERT assessed the information reported in the BR5 of Denmark and identified an issue relating to transparency and thus adherence to the UNFCCC reporting guidelines on BRs. The finding is described in table II.4.

**3. Assessment of achievement of the quantified economy-wide emission reduction target**

63. In assessing the Party’s contribution towards achievement of the 2020 joint EU target on the basis of the information reported in its BR5, the ERT noted that, under the EU 2020 climate and energy package, Denmark committed to reducing its emissions under the ESD to 20 per cent below the 2005 level by 2020 (see para. 29 above). This target has been translated into binding quantified AEAs for 2013–2020. In 2020 Denmark’s ESD emissions were 3.8 per cent (1,227.76 kt CO<sub>2</sub> eq) below the AEA. Denmark has a cumulative surplus of 14,870.50 kt CO<sub>2</sub> eq with respect to its AEAs between 2013 and 2020. The ERT noted that the Party did not make use of units from market-based mechanisms in 2020.

64. The ERT noted that the Party reported that the total GHG emissions excluding LULUCF of the EU and including the use of units from market-based mechanisms do not exceed the emission level corresponding to the target in 2020, and thus that the EU has achieved its joint target. See the report on the technical review of the BR5 of the EU for further details. Therefore, the ERT concluded that, on the basis of the information reported in the BR5, Denmark has met its 2020 commitment under the Convention through its contribution to achieving the joint EU target.

65. The ERT noted that the Party’s ESD emissions in 2020 do not exceed the AEA for 2020.

## **F. Projections**

### **1. Projections overview, methodology and results**

#### **(a) Technical assessment of the reported information**

66. Denmark reported in its BR5 and NC8 updated projections for 2030–2040 relative to actual inventory data for 2020 under the WEM scenario using GWP values from the AR4. The WEM scenario reported by Denmark includes PaMs implemented and adopted until 1 January 2022.

67. In addition to the WEM scenario for Denmark, the Party reported the WEM, WAM and WOM scenarios for the Faroe Islands. Denmark provided a description of its scenarios, explaining that the WEM scenario for Denmark represents a “frozen policy scenario”, the aim of which is to assess how energy consumption and GHG emissions will evolve in the future if no new policy is introduced. The scenario includes PaMs with a cut-off date of 1 January 2022 and was published by the Ministry of Climate, Energy and Utilities in Denmark’s Climate Status and Outlook 2022. During the review, the Party presented estimates for a WOM scenario, which were not included in the report. For the Faroe Islands, the WEM scenario includes PaMs under implementation or adopted by 2022, the WAM scenario includes planned PaMs in the energy sector after 2027, while the WOM scenario excludes PaMs implemented, adopted or planned after 1990. The definitions indicate that the scenarios were prepared in accordance with the UNFCCC reporting guidelines on BRs.

68. The projections are presented on a sectoral basis, using the same sectoral categories as those used in the reporting on mitigation actions, and on a gas-by-gas basis in the WEM scenario for Denmark for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs and SF<sub>6</sub> (treating PFCs and HFCs collectively in each case) for 2030–2040. NF<sub>3</sub> was not included in the projections as it is reported as “NO” in the inventory. For the Faroe Islands the projections are presented only as total emissions in CO<sub>2</sub> equivalent, not on a gas-by-gas basis. The projections are also provided in an aggregated format for each sector and for a Party total using GWP values from the AR4. Emission projections related to fuel sold to ships and aircraft engaged in international transport were reported separately and were not included in the totals. Denmark reported on factors and activities affecting emissions for each sector.

#### **(b) Methodology, assumptions and changes since the previous submission**

69. The methodology used for the preparation of the projections is different from that used for the preparation of the emission projections for the NC7. Denmark did not provide information on changes since the submission of its NC7 in the assumptions, methodologies, models and approaches used for the projection scenarios. During the review Denmark provided information explaining the changes in methodologies and the changes made since the NC7.

70. The projections are prepared using a number of different sectoral models from the Danish Energy Agency and the Danish Centre for Environment and Energy, which are combined with statistical data from the Danish Energy Agency. The main economic model used is the Annual Danish Aggregate Model, which predicts the development of the Danish economy, including factors like population growth, economic trends, technological advancements and consumer behaviour. It supports energy consumption projections by supplying the drivers behind them. RAMSES (Reversibility-based Agent Modelling and Simulation Environment with Speculation Support) is a dedicated dispatch model for the electricity and district heating system, offering insights into the development and integration of renewable energy sources such as wind, solar and hydroelectric power together with traditional power- and heat-producing capacities.

71. During the review, Denmark explained that, since the NC7, it has introduced a new cross-sectoral model (IntERACT), which is a specialized model focusing on emissions and

climate goals. The model offers a detailed analysis of emission reductions, providing information on how different PaMs affect emission levels by using detailed energy-use mappings, technology descriptions and spatial information. New models were also introduced for the transport sector, including a change in the approach to forecasting transportation-related data, which allowed for understanding and addressing emissions from transportation, given its significant contribution to total GHG emissions in Denmark.

72. The shift in models introduces a more robust methodology for forecasting and planning to provide better-informed policy decisions and actions to meet climate and energy objectives. The IntERACT model is tailored specifically for emissions analysis in contrast to previously used models, which had a broader focus on energy market dynamics and demand. This is aimed at allowing the projections to facilitate a more accurate and detailed understanding of the progress towards climate objectives, enabling better tracking and management of emission reduction efforts.

73. To prepare its projections, Denmark relied on key underlying assumptions relating to GDP growth, population changes, fuel prices (oil, gas and coal) and EU ETS emission allowance prices. Regarding changes to the assumptions since the NC7, the Party used lower projected economic growth (GDP), updated fossil fuel prices (based on the World Energy Outlook 2022) and significantly increased emission allowance prices (tenfold increase) in its projections. During the review, Denmark provided supporting information further explaining the methodologies and assumptions through appropriate links to reference materials. The assumptions were updated on the basis of the most recent economic developments known at the time of the preparation of the projections.

74. Sensitivity analyses were conducted for a number of important assumptions, such as share of renewables in the energy mix (share of biogas, commissioning dates for offshore wind and solar photovoltaic systems), uptake of electric vehicles in transport, livestock population, emission removals by forests, the carbon capture, utilization and storage subsidy, economic growth, energy prices, technology developments and the geopolitical situation. Sensitivity analysis was presented only qualitatively for the sectors with a reference to more details provided in the Danish Climate Status and Outlook 2022 report, which contains additional cross-cutting sensitivity analyses on fossil fuel prices and the CO<sub>2</sub> allowance price, which are key assumptions used in projections. On the basis of the information provided in the report, the projected emissions in 2030 and 2035 may further decrease as a result of an additional 12–35 per cent increase in the share of renewables in electricity consumption. Another element potentially affecting projected net emissions in the LULUCF sector is the large uncertainty in the scale of future emissions and removals by forests. The maturation of trees may change the forests from a net sink to a net source of emissions, which would further increase the projected emissions for 2030–2040 for the LULUCF sector.

### (c) Results of projections

75. The projected emission levels under different scenarios are presented in table 7 and figure 1.

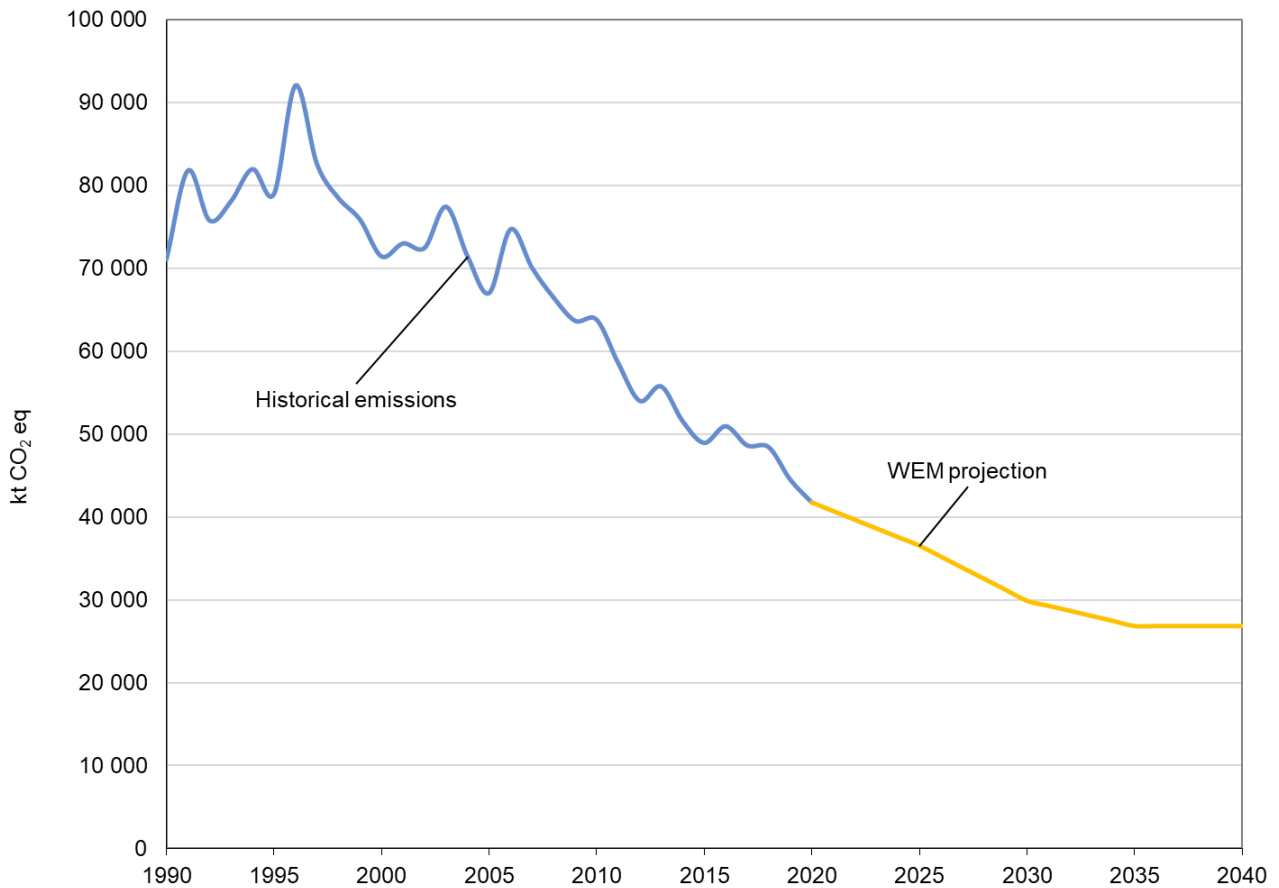
Table 7  
**Summary of greenhouse gas emission projections for Denmark**

	<i>GHG emissions (kt CO<sub>2</sub> eq/year)</i>	<i>Change in relation to 1990 level (%)</i>	<i>Change in relation to 2020 level (%)</i>
Inventory data 1990	71 121.52	NA	NA
Inventory data 2020	41 745.76	–41.3	NA
WEM projections for 2030	29 870.00	–58.0	–28.4
WEM projections for 2040	26 830.00	–62.3	–35.7

*Sources:* Denmark’s NC8, BR5 and BR5 CTF table 6, which uses GWP values from the AR4.

*Note:* The projections are of GHG emissions of Denmark without Greenland and the Faroe Islands, excluding LULUCF and including indirect CO<sub>2</sub>.

Figure 1  
**Greenhouse gas emission projections reported by Denmark**



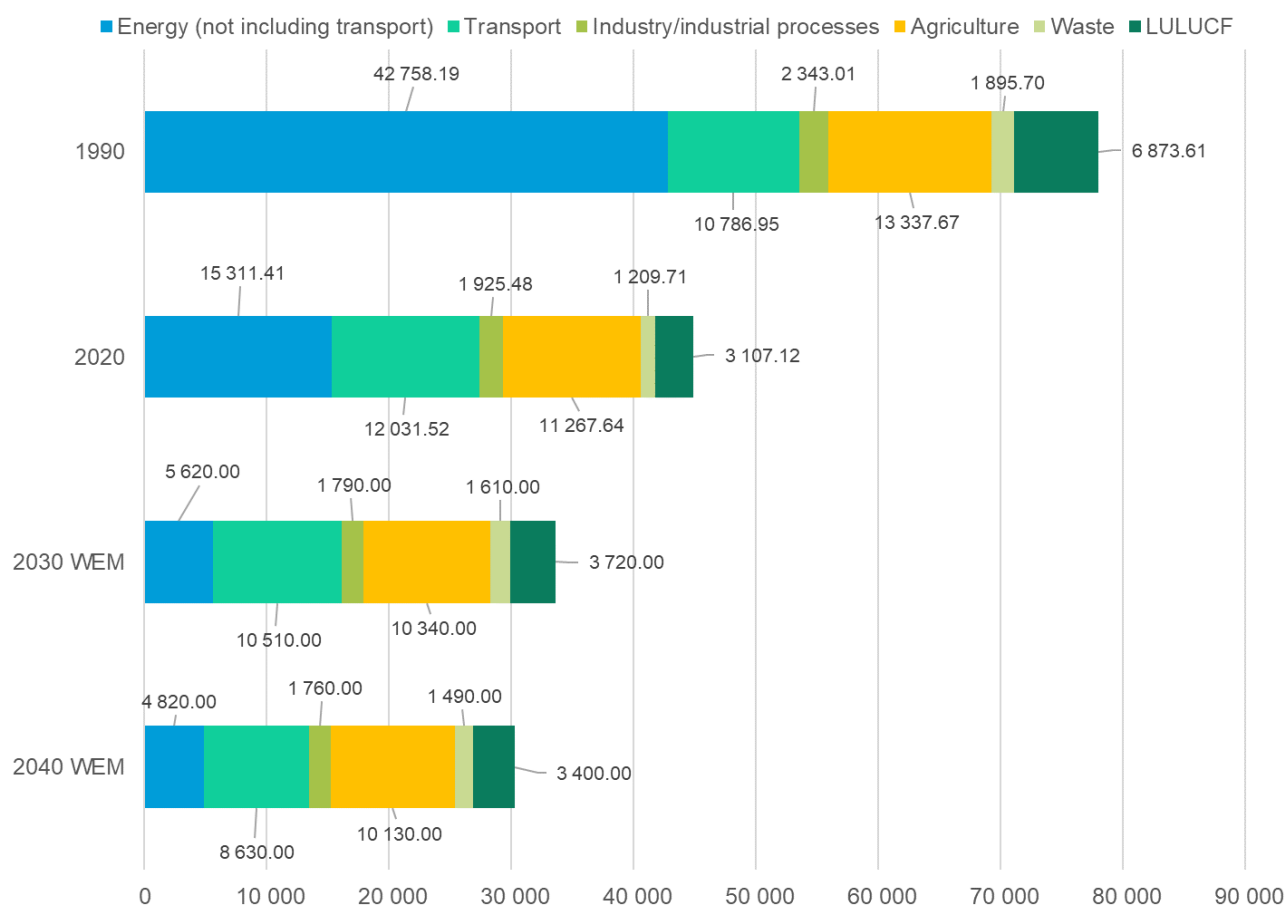
Sources: Denmark’s NC8, BR5 and BR5 CTF tables 1 and 6 (total GHG emissions of Denmark without Greenland and the Faroe Islands, excluding LULUCF and including indirect CO<sub>2</sub>), which use GWP values from the AR4.

76. Denmark’s total GHG emissions excluding LULUCF and including indirect CO<sub>2</sub> are projected under the WEM scenario to decrease by 58.0 and 62.3 per cent below the 1990 level in 2030 and 2040 respectively. When including LULUCF, total GHG emissions including indirect CO<sub>2</sub> are projected under the WEM scenario to decrease by 56.9 and 61.2 per cent below the 1990 level in 2030 and 2040 respectively.

77. Denmark presented the WEM scenario by sector for 2030 and 2040, as summarized in figure 2 and table 8.

Figure 2

**Greenhouse gas emission projections for Denmark presented by sector**

 (kt CO<sub>2</sub> eq)


Sources: Denmark's NC8 and BR5 CTF table 6 (total GHG emissions of Denmark without Greenland and the Faroe Islands, including indirect CO<sub>2</sub>), which use GWP values from the AR4.

Table 8

**Summary of greenhouse gas emission projections for Denmark presented by sector**

Sector	GHG emissions and removals (kt CO <sub>2</sub> eq)			Change (%)	
	1990	2030 WEM	2040 WEM	1990–2030 WEM	1990–2040 WEM
Energy (not including transport)	42 758.19	5 620.00	4 820.00	–86.9	–88.7
Transport	10 786.95	10 510.00	8 630.00	–2.6	–20.0
Industry/industrial processes	2 343.01	1 790.00	1 760.00	–23.6	–24.9
Agriculture	13 337.67	10 340.00	10 130.00	–22.5	–24.0
LULUCF	6 873.61	3 720.00	3 400.00	–45.9	–50.5
Waste	1 895.70	1 610.00	1 490.00	–15.1	–21.4
Other (memo item: international bunkers)	4 808.26	5 559.39	5 582.00	15.6	16.1
<b>Total GHG emissions excluding LULUCF and including indirect CO<sub>2</sub></b>	<b>71 121.52</b>	<b>29 870.00</b>	<b>26 830.00</b>	<b>–58.0</b>	<b>–62.3</b>

Sources: Denmark's NC8 and BR5 CTF table 6 (total GHG emissions of Denmark without Greenland and the Faroe Islands, excluding LULUCF and including indirect CO<sub>2</sub>), which use GWP values from the AR4.

78. According to the projections reported for 2030 under the WEM scenario, the most significant absolute emission reductions are expected to occur in the energy sector (excluding transport) and the LULUCF sector, amounting to projected reductions of 86.9 and 45.9 per cent respectively between 1990 and 2030. The pattern of projected emissions reported for 2040 under the same scenario remains the same, with these sectors accounting for the most significant emission reductions of 88.7 and 50.5 respectively. The IPPU and agriculture

sectors are also expected to deliver significant emission reductions amounting to projected reductions of 23.6 and 22.5 per cent respectively between 1990 and 2030. The pattern of projected emissions reported for 2040 under the same scenario remains the same, with these sectors accounting for emission reductions of 24.9 and 24.0 respectively.

79. Denmark presented the WEM scenario by gas for 2030 and 2040, as summarized in table 9.

Table 9

**Summary of greenhouse gas emission projections for Denmark presented by gas**

Gas <sup>a</sup>	GHG emissions and removals (kt CO <sub>2</sub> eq)			Change (%)	
	1990	2030 WEM	2040 WEM	1990–2030 WEM	1990–2040 WEM
CO <sub>2</sub>	54 704.69	17 230.00	14 670.00	–68.5	–73.2
CH <sub>4</sub>	7 906.27	8 010.00	7 610.00	1.3	–3.7
N <sub>2</sub> O	8 468.15	4 470.00	4 410.00	–47.2	–47.9
HFCs	0.00	140.00	120.00	–	–
PFCs	0.00	0.00	0.00	–	–
SF <sub>6</sub>	42.41	20.00	20.00	–52.8	–52.8
NF <sub>3</sub>	0.00	0.00	0.00	–	–
<b>Total GHG emissions without LULUCF</b>	<b>71 121.52</b>	<b>29 870.00</b>	<b>26 830.00</b>	<b>–58.0</b>	<b>–62.3</b>

Source: Denmark's BR5 CTF table 6 (total GHG emissions of Denmark without Greenland and the Faroe Islands, excluding LULUCF and including indirect CO<sub>2</sub>), which uses GWP values from the AR4.

<sup>a</sup> Denmark included indirect CO<sub>2</sub> emissions in its projections.

80. The projections presented in the NC8 and BR5 point to significantly higher emission reductions in 2030 compared with the projections reported in the NC7 and BR4. The additional emission reductions, which will be achieved through the PaMs implemented and adopted since the NC7, are 20,171 kt CO<sub>2</sub> eq for total emissions including LULUCF and indirect CO<sub>2</sub> emissions and 22,533 kt CO<sub>2</sub> eq for total emissions excluding LULUCF and indirect CO<sub>2</sub> emissions. Compared with the BR4 projections, additional emission reductions to be achieved through the PaMs implemented and adopted since the BR4 are 8,024 and 8,240 kt CO<sub>2</sub> eq respectively including and excluding LULUCF and indirect CO<sub>2</sub> emissions.

**(d) Assessment of adherence to the reporting guidelines**

81. The ERT assessed the information reported in the NC8 and BR5 of Denmark and identified issues relating to completeness and transparency, and thus adherence to the UNFCCC reporting guidelines on NCs and the UNFCCC reporting guidelines on BRs. The findings are in tables I.4 and II.5.

**2. Assessment of the total effect of policies and measures**

**(a) Technical assessment of the reported information**

82. During the review, Denmark presented the estimated and expected total effect of implemented and adopted PaMs on the basis of the WEM scenario, compared with a situation without those PaMs that had been implemented since 2020 (i.e. the mitigation impact of agreements made since the 2020 Danish Climate Act). Information was presented in terms of GHG emissions avoided or sequestered on a CO<sub>2</sub> eq basis in 2030.

83. Denmark reported that the total estimated effect of its implemented and adopted PaMs is 8,439 kt CO<sub>2</sub> eq in 2030. According to the estimation by the ERT based on the information reported in its NC8, PaMs implemented in the energy, industry, transport and agriculture sectors will deliver the largest emission reductions. Table 10 provides an overview of the total effect of PaMs as reported by Denmark disaggregated by sector, as estimated by the ERT, based on information provided by the Party.

Table 10

**Projected effects of Denmark’s planned, implemented and adopted policies and measures in 2030**

(kt CO<sub>2</sub> eq)

Sector	2030	
	Effect of implemented and adopted measures	Effect of planned measures
Energy (without transport)	3 922	NA
Transport	1 917	NA
Industry/industrial processes	IE	NA
Agriculture	1 900	NA
LULUCF	IE	NA
Waste management	700	NA
<b>Total</b>	<b>8 439</b>	<b>NA</b>

Source: Denmark’s NC8, which uses GWP values from the AR5.

Note: The total effect of implemented and adopted PaMs was estimated by the ERT on the basis of the information reported and is defined as the difference between the situation without those measures implemented since 2020 (estimates for the WOM scenario were provided during the review) and the WEM scenario for 2020–2030. Cross-cutting PaMs as well as those targeting sectors other than energy, transport, agriculture and waste management have been included in the energy (without transport) sector and reported as IE.

**(b) Assessment of adherence to the reporting guidelines**

84. The ERT assessed the information reported in the NC8 of Denmark and identified issues relating to completeness and transparency, and thus adherence to the UNFCCC reporting guidelines on NCs. The findings are described in table I.5.

**3. Supplementary relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol**

**(a) Technical assessment of the reported information**

85. In the NC8 Denmark reported that it does not plan to use market-based mechanisms to meet its Kyoto Protocol target. The ERT notes that reporting on the supplementarity of such mechanisms is therefore not relevant for Denmark.

**(b) Assessment of adherence to the reporting guidelines**

86. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

**G. Provision of financial, technological and capacity-building support to developing country Parties**

**1. Technical assessment of the reported information**

**(a) Approach and methodologies used to track support provided to non-Annex I Parties**

87. In its NC8 and BR5 Denmark reported information on its provision of financial, technological and capacity-building support to non-Annex I Parties.

88. Denmark has provided support that it considers to be “new and additional”. Its definition of “new and additional” is finance that is newly committed or disbursed for climate change adaptation or mitigation activities within the reporting period, which was not reported to the secretariat in previous reports.

89. Denmark reported on the support that it has provided to non-Annex I Parties, distinguishing between support for mitigation and adaptation activities and identifying the capacity-building elements of such support. Denmark uses the OECD DAC Creditor Reporting System database with its Rio markers to report on climate-relevant activities. Denmark indicated that all bilateral support to developing countries is screened and assigned



Rio markers to indicate whether the support was focused on adaptation and/or mitigation as a “principal objective” or a “significant objective” or was “not targeted”. The corresponding value assigned to each climate-relevant activity was based on the extent to which climate change is addressed in the project problem analysis, objectives and results. 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.

90. Denmark’s national approach to tracking the provision of support, including information on indicators, delivery mechanisms used and allocation channels tracked, is based on the OECD DAC Creditor Reporting System database with its Rio markers to track both bilateral and multilateral support to developing countries (see para. 89 above). Denmark tracks its support to developing countries through multilateral climate finance mechanisms by classifying it into core finance and climate-specific finance. The core finance refers to funding to select institutions that are marked as “core contributions to multilateral institutions” in statistical reporting to the OECD DAC Creditor Reporting System and are not allocated Rio markers. The climate-specific finance allocated to a multilateral organization is further subdivided into finance that is earmarked, multi-bilateral finance which has been allocated a Rio marker or as core finance to a multilateral organization deemed as entirely focused on climate change. Denmark also reported that climate-specific finance channelled through specific programmes and trust funds managed by multilateral institutions is treated in the same way as climate-specific bilateral and regional support.

91. Denmark reported that all new Danish climate-relevant commitments in 2019–2020 had been assessed for technology development and transfer and capacity-building relevance in parallel with the existing processes of Rio marker allocations and external review. The methodology was applied to assess whether technology development and transfer and capacity-building elements had been included in the project’s context, design and objectives with markers assigned accordingly. A marker of “1” denoted that the objective was a significant or principal objective of the activity, while a marker of “0” denoted that neither technology development nor capacity-building was a significant objective of the activity. The Rio markers terminology and definitions were used to determine the threshold for significance.

92. Denmark’s methodology and underlying assumptions used for collecting and reporting information on financial support is generally the same as that used for previous submissions (BR2, BR3 and BR4). For 2017–2020, Denmark reported core funding to several institutions which were not included in previous BRs, namely the Food and Agriculture Organization of the United Nations, the International Development Association’s Multilateral Debt Relief Initiative, the Asian Infrastructure Investment Bank, the Organisation for Economic Co-operation and Development and the United Nations Convention to Combat Desertification. In the NC8 and BR5, Denmark reported two improvements made to the reporting methodology compared with the previous submissions, namely, reporting of climate finance resulting from support provided to Danish NGOs through multi-project mechanisms and pooled support, and providing a more detailed description of the methodology for assessing and tracking support for technology development and transfer and capacity-building with a list of examples of projects with technology development and transfer and capacity-building components.

**(b) Financial resources**

93. Denmark reported in its NC8 and BR5 information on its provision of financial support to non-Annex I Parties as required under the Convention, including on financial support committed and disbursed, allocation channels and annual contributions. Denmark reported on both climate finance commitments and climate finance disbursements, which it considers to be two different phases of its climate finance deployment cycle. Disbursement refers to the actual transfer of funds to an account of the recipient country or organization, while the commitment precedes disbursement and refers to the final approval or signing of an agreement or similar document by the relevant Danish authority and recipient country or organization.

94. Denmark’s support strategy for the reporting period was guided by the strategy for development cooperation and humanitarian action, The World 2030, which has since been superseded by The World We Share as Denmark’s development strategy for 2021–2025.

95. Denmark described how it seeks to ensure that the resources it provides to non-Annex I Parties effectively address their adaptation and mitigation needs. Denmark engages in long-term partnerships with a number of countries to which it provides climate-relevant ODA bilaterally. Danish representatives in partner countries engage with the governments of those countries to guide the development and management of the climate change related development cooperation. Denmark also collaborates with a range of partners, including national and local government, international agencies, civil society organizations, private companies and research institutions to inform project and programme identification and preparation. Denmark’s reported approach to the provision of climate support to developing countries includes support to strengthen the integration of climate change adaptation and mitigation into national planning processes and policy formulation and implementation, including as part of national adaptation plans and nationally determined contributions. Denmark also provided support to the Least Developed Countries Fund, which in turn assists the least developed countries in the preparation and implementation of their national adaptation programmes of action and national adaptation plans. Table 11 summarizes the information reported by Denmark on its provision of financial support.

Table 11

**Summary of information on provision of financial support by Denmark in 2019–2020**

(Millions of United States dollars)

<i>Allocation channel of public financial support</i>	<i>Disbursement in 2019–2020</i>
ODA	5 182.23
Climate-specific contributions through multilateral channels, including:	244.77
Global Environment Facility	0.00
Least Developed Countries Fund	54.59
Special Climate Change Fund	0.00
Adaptation Fund	0.00
Green Climate Fund	37.45
Trust Fund for Supplementary Activities	0.78
Other multinational climate change funds	11.27
Financial institutions, including regional development banks	96.27
United Nations bodies	44.40
Climate-specific contributions through bilateral, regional and other channels	300.47

*Sources:* Denmark’s BR5 CTF tables and Query Wizard for International Development Statistics, available at <http://stats.oecd.org/qwids/>.

96. Denmark’s climate-specific public financial support<sup>11</sup> disbursed totalled USD 545.24 million in 2019–2020, representing an increase of 24.4 per cent since the BR4 (2017–2018).<sup>12</sup> Denmark’s total disbursements of climate-specific finance for this period amounted to 13 and 12 per cent of Denmark’s total ODA in 2019 and 2020 respectively. With regard to future financial pledges aimed at enhancing the implementation of the Convention by developing countries, Denmark’s development strategy for 2021–2022, The World We Share, confirms Denmark’s commitment to provide 0.7 per cent of gross national income as ODA with efforts to limit climate change and restore balance to global ecosystems as one of the pillars of Danish development cooperation.

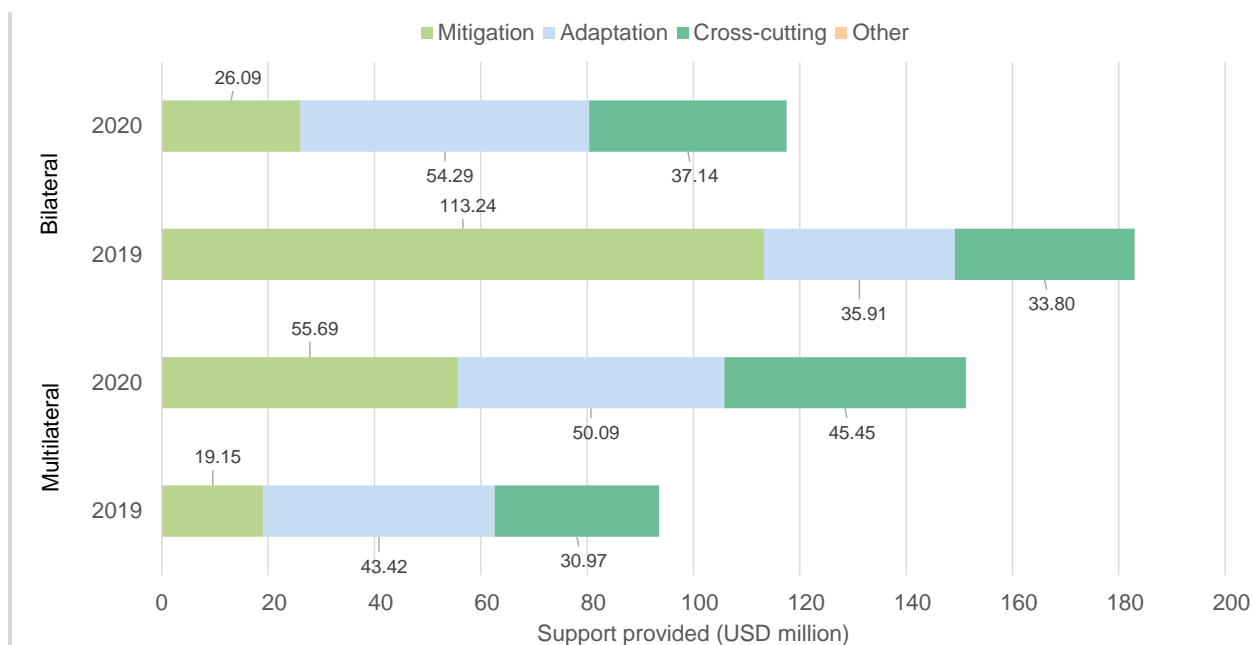
97. Denmark contributed through multilateral channels USD 244.77 million in 2019–2020. The contributions were made to specialized multilateral climate change funds, such as the Least Developed Countries Fund, the Green Climate Fund and other multinational climate

<sup>11</sup> For the remainder of this chapter, the term “financial support” means climate-specific financial support, unless otherwise noted.

<sup>12</sup> Comparisons with data from previous years have been calculated directly without adjusting for inflation.

change funds. Denmark’s contribution to the Least Developed Countries Fund and the Green Climate Fund increased by USD 37.30 million and USD 14.73 million respectively since the BR4. Information on financial support from the public sector provided through multilateral and bilateral channels and the allocation of that support by target area is presented in figure 3 and table 12.

Figure 3  
Provision of support by Denmark in 2019–2020



Source: Denmark’s BR5 CTF tables 7, 7(a) and 7(b).

Table 12  
Summary of information on channels of financial support reported by Denmark  
(Millions of United States dollars)

Allocation channel of public financial support	Amount disbursed in 2019–2020	Amount disbursed in 2017–2018	Change (%) <sup>a</sup>	Share of total (2019–2020) (%)
<b>Detailed information by type of channel</b>				
<b>Multilateral channels</b>				
Mitigation	74.84	24.01	211.7	30.6
Adaptation	93.51	49.12	90.4	38.2
Cross-cutting	76.42	47.18	62.0	31.2
<b>Total multilateral</b>	<b>244.77</b>	<b>120.31</b>	<b>103.4</b>	<b>100.0</b>
<b>Bilateral channels</b>				
Mitigation	139.33	131.67	5.8	46.4
Adaptation	90.20	70.73	27.5	30.0
Cross-cutting	70.94	115.51	–38.6	23.6
<b>Total bilateral</b>	<b>300.47</b>	<b>317.91</b>	<b>–5.5</b>	<b>100.0</b>
<b>Total multilateral and bilateral</b>	<b>545.24</b>	<b>438.22</b>	<b>24.4</b>	<b>100.0</b>

Sources: Denmark’s BR5 CTF tables 7, 7(a) and 7(b) and the report on the technical review of the BR4 of Denmark for 2017–2018.

<sup>a</sup> Note that variances in contribution amounts from year to year can occur that are not reflective of trends, owing to factors such as the biennial or triennial contribution cycles of some multilateral funds, the timing of approvals for individual bilateral projects or changes in exchange rates.

98. The Party reported detailed information on the total financial support provided through bilateral (USD 300.47 million) channels in 2019–2020. During the reporting period, Denmark placed a particular focus on African countries (Ethiopia, Kenya, Somalia and Uganda) and on countries in South and South-East Asia (Bangladesh, India, Myanmar and

Pakistan). The ERT noted that Denmark reported its bilateral support allocated to Annex I Parties in 2019 and 2020 (Türkiye in 2019 and Ukraine in 2019 and 2020).

99. The NC8 and the BR5 provides information on the types and instruments of support provided. The information reported shows that in 2019–2020 the average shares of bilateral financial support allocated to mitigation, adaptation and cross-cutting projects were 46.4, 30.0 and 23.6 per cent respectively. In 2019–2020, the majority of financial contributions through bilateral channels were allocated to the energy sector, environmental policy and administrative management, water and sanitation, business support services and institutions, and urban and rural development. The ERT noted that the grants provided in 2019–2020 accounted for most of the bilateral and regional financial support. The Party's bilateral programme with Kenya, Supporting Climate Technologies and Related Innovative Business Models' Development, is an example of Danish technology development and transfer. The programme has a budget of DKK 54.75 million and focuses on business policy and administration with the aim of increasing the commercialization, innovation, scale-up and uptake of climate solutions with employment generation benefits. The programme outcomes also include increased access to finance and an improved enabling environment through policy advocacy, research and awareness-raising.

100. Denmark explained that private finance is mainly mobilized for sustainable infrastructure, renewable energy and circular economy investments. It also reported on how it uses public funds to promote private sector financial support for developing countries to increase mitigation and adaptation efforts in developing countries through the establishment of partnerships to develop and prove market-based green and inclusive solutions. The main bilateral vehicle for mobilizing private finance for climate-relevant investments in developing countries is IFU and the various funds it manages. Climate-relevant private investments to the value of DKK 420.0 million and DKK 794.0 million were mobilized in 2019 and 2020 respectively. Denmark explained its approach to collecting information and reporting on private financial flows leveraged by bilateral climate finance for mitigation and adaptation activities in non-Annex I Parties. IFU calculates the amounts of private finance mobilized, declaring both the commitments made by IFU and the amount of private finance it has received from pension funds or private investors. The public climate-relevant investments made by IFU and the resulting mobilized climate-relevant private investments are calculated using Denmark's Rio marker methodology.

101. The Danish SDG Investment Fund is one innovative addition to Denmark's suite of instruments to mobilize private finance for climate-relevant investments in developing countries. The Danish SDG Investment Fund was established in 2018, targeting strategic sectors including renewable energy; agribusiness; infrastructure, including water and sanitation; industry and service; and the financial sector. The Fund received total committed capital of DKK 4.86 billion from the Government, IFU, Danish pension funds and institutional and private investors. The Fund is envisaged to promote investments of at least DKK 30 billion until 2030 and will form the primary vehicle for IFU equity investment activities.

102. An example of Denmark's support is the Assela Wind Farm Project in Ethiopia, which was one of the 10 largest recipient countries of disbursements of Danish climate-specific finance between 2019 and 2020. The project aims to establish a 100 MW wind farm expected to generate and supply to the national grid an average of 330 GWh electricity a year. The avoided emissions arising from this project are estimated as 175.89 kt CO<sub>2</sub> eq annually.

103. Denmark provided support in the amount of DKK 75 million to the Global Infrastructure Facility. The primary objective of the Global Infrastructure Facility is to increase private sector investment in complex infrastructure projects. It works with governments to bring to market high-quality infrastructure projects that have been structured with a view to enabling the participation of a large number of private sector investors.

104. Denmark disbursed climate finance to developing countries, working with different partners and delivery channels, including multilateral organizations, public sector institutions, NGOs and civil society organizations and private sector institutions. Multilateral institutions were used to channel 45 per cent of Denmark's climate finance in 2019 and 2020,

while public sector institutions, NGOs and civil society, and private sector institutions accounted for 27, 17 and 5 per cent of channelled finance respectively.

**(c) Technology development and transfer**

105. Denmark reported on its measures and activities related to technology transfer, access and deployment benefiting developing countries, including activities undertaken by the public and private sector. One example of such support is the India-Denmark Energy Partnership, which is a strategic sector cooperation initiative for 2020–2024 with a budget of DKK 60 million. The initiative focuses on long-term public sector strategic cooperation between Danish and Indian public authorities. The climate change mitigation component of the partnership focuses on the dissemination of knowledge on the development of diverse and integrated renewable energy sectors. The cooperation included the development of a Danish–Indian knowledge centre for wind energy development in India, with funding provided through Denmark’s Climate Envelope for 2019. This support is an example of soft technology transfer through the development of management systems and tools to enable enhanced uptake of renewable energy technologies.

106. Denmark focused the provision of its technology transfer support on the following recipient countries: Afghanistan, Georgia, India, Indonesia, Kenya, Mali, Niger, Rwanda and Uganda, in addition to several interregional programmes. Many of the support initiatives include capacity-building components. The provision of support covered both mitigation and adaptation activities, encompassing measures such as the provision of clean energy lighting systems; tools for long-term energy system planning; modelling and the forecasting and integration of renewable energy; and the development of management systems and tools to enable enhanced uptake of renewable energy technologies. Other forms of technology transfer support include the distribution of pay as you go solar energy solutions for cooling to smallholder producers and traders; the introduction of innovative, digital climate resilience platforms for agricultural advisory services and credit risk assessment; the transfer of solar-based irrigation technologies and agricultural inputs and associated training to enhance agricultural production; and the provision of support to enable the commercialization and scale-up of climate solutions and access to finance. The main sectors and areas covered by the technology transfer support are agriculture, energy, business policy and administration, multisector aid, environmental education and training, and material relief assistance and services.

107. Denmark reported on its support provided to multilateral institutions with technology development and transfer components such as the Africa Commission’s Energy Initiative, the Energy Sector Management Assistance Program, the Global Infrastructure Facility – Developing Climate Smart Infrastructure Projects, the International Renewable Energy Agency’s Small Island Developing States Lighthouses Initiative and the Least Developed Countries Fund. Denmark provided support amounting to DKK 27.2 million to the Climate Technology Centre and Network, the implementation arm of the Technology Mechanism, which serves to promote accelerated technology development and transfer for both adaptation and mitigation at the request of developing countries. Of the 26 projects supported through the Climate Technology Centre and Network, 10 were implemented in Africa (9 in individual countries and a single regional programme), 3 in individual Asian countries and 11 implemented as interregional programmes.

108. Since its last NC and BR, Denmark has implemented additional measures and activities, expanding the geographic coverage of technology development and transfer initiatives in Asia and Africa. Denmark did not describe success and failure stories in relation to technology transfer.

**(d) Capacity-building**

109. Denmark reported on its capacity-building support for mitigation, adaptation and technology that responds to the existing and emerging needs identified by non-Annex I Parties. It described individual measures and activities related to capacity-building support in textual and tabular format. Denmark listed 38 capacity-building programmes that receive such support. The reported initiatives address adaptation, mitigation, technology transfer and development or a combination of these areas at the individual country and interregional level.

110. Denmark provides bilateral and regional capacity-building support to several African countries, including Ethiopia, Kenya, Mali, Niger, Rwanda, South Africa, the United Republic of Tanzania, Uganda and Zimbabwe. Country-level capacity-building support was also provided to Lebanon, Georgia, India and Indonesia. The majority of capacity-building programmes reported that received support from Denmark are interregional initiatives that cover a range of issues, including access to safe water and sanitation, management of water resources, and enabling investments, finance and infrastructure for water; the development of institutional capacity to accelerate the deployment of renewable energy and to enable the reform of national and international reform of fossil fuel and electricity subsidies; and public–private partnerships and platforms for the promotion of green growth and inclusive sustainable development and support to national and subnational governments, international organizations and companies on approaches to the integration of the economic case for climate action into economic and development planning. Examples of capacity-building support provided to developing countries include development engagements in Kenya, which address both adaptation and mitigation.

111. Denmark provided support to multilateral institutions with capacity-building components. On mitigation, Denmark provides support to the International Renewable Energy Agency to undertake and disseminate research on long-term energy planning, regional analysis and energy transition system dynamics and enable best practice exchange among practitioners and policymakers. The United Nations initiative, Sustainable Energy for All, supported by Denmark, seeks to enable universal access to sustainable energy (SDG 7). An example of an adaptation-focused capacity-building project supported by Denmark is the International Work Group for Indigenous Affairs. In line with Denmark’s priority on the promotion and protection of the rights of Indigenous Peoples, this project will contribute to the inclusion, referencing and recognition of the rights and knowledge of Indigenous Peoples in climate action in the nationally determined contributions of targeted countries.

112. Denmark has supported climate-related capacity development activities relating to adaptation, mitigation, climate financing and other sectors. Since the BR4, the focus of support has remained largely the same, although there has been a slight shift and expansion in the geographic footprint of initiatives supported in Asia and Africa. Denmark’s support has responded to the existing and emerging capacity-building needs of non-Annex I Parties through expanded long-term partnerships for sustainable development with partner countries. Where possible, Denmark also uses prior engagement review and evaluation to ensure that the capacity-building support provided to non-Annex I Parties reflects their endogenous priorities and needs in line with the principles of national ownership and cooperation between donors and across programmes. Denmark further collaborates with national and local government authorities, international agencies, civil society organizations, private companies, research institutions and other relevant actors to identify, inform and prepare specific projects and programmes. The Party reported that project tracking included an assessment to determine whether technology development and transfer and capacity-building elements are included in a project’s context, design and objectives and Rio markers are assigned accordingly.

113. A key part of Denmark’s climate-relevant ODA involves countries with which Denmark has long-term partnerships for sustainable development. Denmark has representatives in partner countries responsible for ensuring dialogue with the governments of those countries about programming and management of development cooperation, including support for climate action.

## **2. Assessment of adherence to the reporting guidelines**

114. The ERT assessed the information reported in the NC8 and BR5 of Denmark and identified issues relating to completeness and transparency and thus adherence to the UNFCCC reporting guidelines on NCs and the UNFCCC reporting guidelines on BRs. The findings are described in tables I.4 and II.6.

### **3. Reporting on finance, capacity-building and technology transfer information related to the Kyoto Protocol**

#### **(a) Technical assessment of the reported information**

115. In its NC8 Denmark reported its activities, actions and programmes undertaken in fulfilment of its commitments under Article 10 of the Kyoto Protocol. Denmark provided information on steps taken to promote, facilitate and finance the transfer of technology to developing countries and to build their capacity in order to facilitate implementation of Article 10 of the Kyoto Protocol. Denmark has provided technology transfer and capacity-building support for both mitigation and adaptation activities, encompassing measures such as the provision of clean energy lighting systems; tools to enable enhanced uptake of renewable energy technologies; access to safe water and sanitation; reform of fossil fuel and electricity subsidies; and public-private partnerships and platforms for the promotion of green growth and inclusive sustainable development.

116. Denmark provided information on its implementation of Article 11 of the Kyoto Protocol. The climate support it provides to developing countries includes support to strengthen the integration of climate change adaptation and mitigation into national planning processes, policy formulation and implementation. Denmark engages in expanded and long-term partnerships with a number of countries, to which climate-relevant ODA support is provided through bilateral support (see para. 110 above). The Party described how its contributions are “new and additional” (see para. 88 above).

#### **(b) Assessment of adherence to the reporting guidelines**

117. The ERT assessed the information reported in the NC8 of Denmark and recognized that the reporting is complete and transparent, and thus adheres to the reporting guidelines for supplementary information. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

## **H. Vulnerability assessment, climate change impacts and adaptation measures**

### **1. Technical assessment of the reported information**

118. In its NC8 Denmark provided information on the expected impacts of climate change in the country; the adaptation policies covering regional, sectoral and cross-sectoral vulnerabilities and considerations; and an outline of the action taken to implement Article 4, paragraph 1(b) and (e), of the Convention with regard to adaptation. Denmark provided a description of climate change vulnerability and impacts on individual sectors and highlighted the adaptation response actions taken at different levels of government. Climate change impacts and actions were described for construction and housing, coasts and ports, transport, water, agriculture, forestry, fisheries, energy, tourism, nature, health and cross-sectoral areas, on the basis of information from those with knowledge and experience of each sector as well as climate predictions from the 2022 update of the Danish Meteorological Institute Climate Atlas, a tool that provides climate services based on fundamental climate data for planning adaptation.

119. Denmark has addressed adaptation matters through the adoption of an action plan for a ‘climate proof’ Denmark, launched in December 2012 following the first Danish strategy for adaptation to a changing climate (2008) and the Danish Flood Risk Act (2009), which implemented the EU directive on the assessment and management of flood risks (directive 2007/60/EC). Almost all municipalities are part of the DK-2020 network, founded in 2019, through which they receive technical support and share knowledge for developing their climate action plans by 2023. During the review, the Party explained that its first national climate adaptation plan was published by the Government of Denmark in October 2023 and includes a range of measures, focusing on State involvement in reinforcing protection against coastal flooding and the local authorities’ role in managing a rise in the level of groundwater. Denmark also explained that no adaptation measures have been implemented or planned for

the Faroe Islands. The Government of Greenland has initiated projects aiming at mainstreaming adaptation in various sectors, including through a series of assessments launched in 2011, including on fisheries and hunting (2012), shipping (2015) and agriculture (2017). Table 13 summarizes the information on vulnerability and adaptation to climate change presented in the NC8 of Denmark.

Table 13

**Summary of information on vulnerability and adaptation to climate change reported by Denmark**

<i>Vulnerable area</i>	<i>Examples/comments/adaptation measures reported</i>
Agriculture and food security	<p><b>Vulnerability:</b> Increased winter precipitation and rising water levels in some areas are expected to cause flooding or higher groundwater levels that are detrimental to agriculture. Longer periods of drought will increase the need for irrigation. Higher temperatures could result in more plant diseases and lower animal welfare through heat stress. Higher temperatures and winter precipitation will also increase the risk of nitrogen and phosphorus leaching.</p> <p><b>Adaptation:</b> There is a crop breeding effort to develop new varieties better adapted to the evolving climate and with better resistance to existing and emerging pests and diseases. There are also several mitigation measures with positive climate adaptation effects, such as taking 100,000 ha organic soils out of production and rewetting them.</p>
Biodiversity and natural ecosystems	<p><b>Vulnerability:</b> More than half of the current salt marshes are expected to be permanently flooded. It is also expected that a warmer climate will alter the species composition.</p> <p><b>Adaptation:</b> In 2018, fifteen projects of municipalities to adapt to climate change by implementing nature-based solutions received funding by the Danish Ministry of Environment and Food.</p>
Coastal zones	<p><b>Vulnerability:</b> Sea level rise will increase erosion and coastal recession, and cause more frequent flooding of low-lying coastal areas, increase costs for port maintenance and make operations at ports more difficult.</p> <p><b>Adaptation:</b> From 2017 to 2020, a mobile task force was established to meet needs for guidance on holistic climate change adaptation solutions, with a focus on flooding and erosion. The Government established a fund with earmarked funding in 2020–2023 for the reinforcement of dykes and other coastal protection projects by municipalities.</p>
Fisheries	<p><b>Vulnerability:</b> Rising sea temperature, acidification and a drop in salinity induced by increased precipitation are expected to impact fish stocks and production.</p> <p><b>Adaptation:</b> In the case of Greenland, knowledge gaps regarding development of national adaptation strategies and implementation of systematic approaches for the sector were identified in an assessment published in 2012.</p>
Human health	<p><b>Vulnerability:</b> Heatstroke and dehydration are expected during heatwaves. Infections and other health issues are expected to increase with a rise in temperatures and increased frequency and severity of flooding. Increased temperatures will likely lead to people spending more time outdoors, which might have positive health impacts but might also cause more problems for people with allergies.</p> <p><b>Adaptation:</b> The Danish Emergency Management Agency addresses future climate-related challenges through natural hazard contingency planning and prioritizing equipment purchases. If flooding leads to contamination of drinking water, Danish fire and rescue services can assist with the distribution of clean drinking water. During the pollen season, Asthma-Allergy Denmark sends out daily reports on the concentration of the main allergenic pollen types.</p>
Infrastructure and economy	<p><b>Vulnerability:</b> More extreme rainfall events are expected to lead to more flooding. Along with the rising water table level, they are expected to affect construction and housing, road and rail networks, and bridges.</p> <p><b>Adaptation:</b> Municipalities can use a screening tool known as KAMP (Climate Adaptation and Land Use Tool for Environmental and Planning Professionals) that identifies the areas where possible climate change impacts may require attention. In 2022, climate change was included in the statutory objective of the Planning Act, with the goal of strengthening the integration of climate change in development planning.</p>



<i>Vulnerable area</i>	<i>Examples/comments/adaptation measures reported</i>
Tourism	<p>Vulnerability: While Denmark could become a more attractive destination for a greater part of the year with a warmer climate, a higher sea level can make a number of current holiday areas along the coast less attractive.</p> <p>Adaptation: National tourism organizations support local administrative bodies in implementing local strategic development plans and carrying out climate adaptation projects with recreational co-benefits.</p>
Water resources	<p>Vulnerability: Sea level rise will move the freshwater boundaries further inland. Long periods of drought may bring the water supply under pressure. In addition, increased precipitation will put further pressure on the sewage system.</p> <p>Adaptation: In 2021, new rules regulating wastewater utilities’ investments were implemented, allowing municipalities to reflect climate change adaptation needs in service-level requirements for wastewater utilities, which could potentially finance socioeconomically viable adaptation measures.</p>

120. Denmark provided a detailed description of international adaptation activities, including its participation in multilateral climate funds such as the Least Developed Countries Fund and the International Work Group for Indigenous Affairs and its bilateral cooperation on adaptation with developing countries in Africa (Burkina Faso, Kenya, Niger, Rwanda, Uganda, United Republic of Tanzania) and Asia (Lebanon).

**2. Assessment of adherence to the reporting guidelines**

121. The ERT assessed the information reported in the NC8 of Denmark and identified an issue relating to transparency and thus adherence to the UNFCCC reporting guidelines on NCs. The finding is described in table I.5.

**I. Research and systematic observation**

**1. Technical assessment of the reported information**

122. In its NC8 Denmark provided information on its general policy and funding relating to research and systematic observation and both domestic and international activities, including contributions to the World Climate Programme, the Global Climate Observing System and the Intergovernmental Panel on Climate Change. Denmark did not provide information on the identification of opportunities for and barriers to free and open international exchange of data and information but included examples of actions taken to overcome such barriers and explained that Danish Meteorological Institute Earth System data and products are exchanged with World Meteorological Organization members and made freely available without charge.

123. Denmark has implemented and planned international and domestic policies and programmes on climate change research, systematic observation and climate modelling that aim to advance capabilities to predict and observe the physical, chemical, biological and human components of the Earth’s system over space and time. The funding for climate research is secured from the National Centre for Climate Research and from EU research grants, among others. Denmark has a long history of supporting research and development in technologies to reduce emissions from the energy sector. Policies and programme on climate change research presented in the NC8 are broadly the same as those presented in the NC7. A recent institutional change is the establishment by universities in Denmark in 2022 of the Centre for Sustainable Agrifood Systems, which contributes to research in the green transformation of agrifood systems.

124. In terms of activities related to systematic observation, Denmark reported on national plans, programmes and support for ground- and space-based climate observing systems, including satellite and non-satellite climate observation. Denmark also reported on challenges related to the maintenance of a consistent and comprehensive observation system. The Danish Meteorological Institute has been performing climate monitoring for 150 years. It carries out atmosphere and ocean observation under World Meteorological Organization programmes, as well as polar research and regional climate change projections. Aarhus

University monitors GHG emissions and concentrations and the effects of climate change on nature and the environment. The Technical University of Denmark monitors a significant number of essential climate variables using remote sensing. The Programme for Monitoring the Greenland Ice Sheet, launched in 2007, and the Greenland Climate Network, established in 1995, deliver data on the mass balance of the Greenland ice sheet in near real time. During the review, Denmark indicated that it is currently modernizing a large number of its weather and climate observation stations, in both Denmark and Greenland.

125. The NC8 reflects actions taken to support capacity-building and the establishment and maintenance of observation systems and related data and monitoring systems in developing countries. Denmark provided funding for scientists from developing countries working on global climate change research. Since 2022, the Danish Meteorological Institute has participated in the United Nations Multi-Partner Trust Fund Systematic Observations Financing Facility and established a partnership with the Ghana Meteorological Agency. Denmark also mentioned in its NC8 that it was about to participate as peer adviser to meteorological agencies in the Global South. During the review, Denmark clarified that the Danish Meteorological Institute is now acting as peer advisor to meteorological offices in the United Republic of Tanzania and Ghana as part of this effort.

## **2. Assessment of adherence to the reporting guidelines**

126. The ERT assessed the information reported in the NC8 of Denmark and identified an issue relating to transparency and thus adherence to the UNFCCC reporting guidelines on NCs. The finding is described in table I.6.

## **J. Education, training and public awareness**

### **1. Technical assessment of the reported information**

127. In its NC8 Denmark provided information on its actions relating to education, training and public awareness at the domestic and international level. The Party provided information on the general policy on education, training and public awareness; primary, secondary and higher education; public information campaigns; training programmes; education materials; resource or information centres; the involvement of the public and NGOs; and its participation in international activities.

128. Denmark mentioned that it has a long tradition of involving the public in the environmental field, going back to the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. The websites of Danish ministries, universities and institutions provide a considerable amount of information on climate change. For primary and lower secondary education, a new learning portal aims to facilitate the inclusion of the SDGs in teaching. The focus on sustainable development in upper secondary education was initiated as part of a reform launched in 2017. The Ministry of Children and Education is now working on strengthening skills and competencies for the green transition and sustainability in vocational education. For instance, three climate vocational schools are being financed, and additional investment being made in equipment and new courses. Since 2019, the involvement of civil society has been strengthened with the establishment of a youth climate council, 13 climate partnerships for cooperation with the business community, and a citizen assembly on climate convened in 2021 and 2022 that developed a set of recommendations on addressing climate change.

### **2. Assessment of adherence to the reporting guidelines**

129. The ERT assessed the information reported in the NC8 of Denmark and identified an issue relating to completeness and thus adherence to the UNFCCC reporting guidelines on NCs. The finding is described in table I.7.

### III. Conclusions and recommendations

130. The ERT conducted a technical review of the information reported in the NC8 of Denmark in accordance with the UNFCCC reporting guidelines on NCs. The ERT concluded that the reported information mostly adheres to the UNFCCC reporting guidelines on NCs and that the NC8 provides an overview of the national climate policy of Denmark.

131. The information provided in the NC8 includes all of the elements of the supplementary information under Article 7, paragraph 2, of the Kyoto Protocol. Denmark reported on the national system, the national registry, supplementary relating to the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol, PaMs in accordance with Article 2 of the Kyoto Protocol, domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures, information under Article 10 of the Kyoto Protocol, and financial resources provided to developing country Parties. Supplementary information under Article 7, paragraph 1, of the Kyoto Protocol on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol was provided by Denmark in its 2022 annual submission.

132. The ERT conducted a technical review of the information reported in the BR5 and BR5 CTF tables of Denmark in accordance with the UNFCCC reporting guidelines on BRs. The ERT concluded that the reported information mostly adheres to the UNFCCC reporting guidelines on BRs and that the BR5 and its CTF tables provide an overview of emissions and removals related to the Party's quantified economy-wide emission reduction target; assumptions, conditions and methodologies related to the attainment of the target; the progress of Denmark towards achieving its target; and the Party's provision of support to developing country Parties.

133. In its NC8 Denmark reported on its key national circumstances related to GHG emissions and removals, including the economy, energy system, population and climatic conditions. Denmark's population of around 5.9 million is largely concentrated in cities. It has been growing moderately since 1990 and is expected to reach 6.0 and 6.3 million in 2030 and 2050 respectively. Denmark has an open economy, which is dominated by trade. In 1990–2021, the economy grew at an average annual growth rate of 1.7 per cent. GDP per capita is around USD 60,000. Primary energy sources include crude oil, natural gas, renewable energy (including renewable waste) and non-renewable waste. Denmark is self-sufficient only to the extent of 55 per cent of its primary energy consumption.

134. Denmark's total GHG emissions excluding LULUCF and including indirect CO<sub>2</sub> were estimated to be 38.7 per cent below its 1990 level. Emissions peaked in 1996 and decreased thereafter. The changes in total emissions were driven mainly by factors such as a shift from coal to natural gas and biomass in the power sector, increased use of wind and solar power generation and use of district heating systems. Emissions were also influenced by the changes in the level of production and structural changes in industry as well as relevant regulations regarding the ban on landfilling of combustible waste and use of fertilizers and F-gases. Emissions excluding LULUCF and including indirect CO<sub>2</sub>, particularly the transport sector emissions, decreased in 2020 owing to the coronavirus disease 2019 pandemic, but increased in 2020–2021 by 2.6 per cent.

135. As reported in the BR5, under the Convention Denmark committed to contributing to the achievement of the joint EU quantified economy-wide target of a 20 per cent reduction in emissions below the 1990 level by 2020. The target covers all sectors and CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, expressed using GWP values from the AR4. Emissions and removals from the LULUCF sector are not included. Under the ESD Denmark has a target of reducing its emissions by 20 per cent below the 2005 level by 2020.

136. The EU has a joint 2030 emission reduction target of at least 55 per cent below the 1990 level. This will be primarily implemented through the EU ETS and the ESR, which have targets to reduce emissions by 2030 by 62 and 40 per cent respectively compared with the 2005 level. The 2020 Danish Climate Act has a target of reducing GHG emissions by 70 per cent relative to the 1990 level by 2030 and a long-term objective to achieve net zero emissions by no later than 2050. It also has a short-term target of reducing GHG emissions by 50–54 per cent by 2025. The Government has proposed bringing forward the goal of

climate neutrality by 2045 and setting a new goal of a reduction in GHG emissions of 110 per cent by 2050 relative to the 1990 level.

137. The ERT noted that the total GHG emissions of the EU excluding LULUCF do not exceed the emission level corresponding to the target in 2020, and thus that the EU has achieved its joint target. The ERT therefore concluded that Denmark has met its 2020 commitment under the Convention through its contribution to achieving the joint target of the EU. See the report on the technical review of the BR5 of the EU for further details. The ERT noted that the Party met its 2020 ESD target because its ESD emissions in 2020 do not exceed its AEA for 2020.

138. The GHG emission projections provided by Denmark in its NC8 and BR5 correspond to the WEM scenario for Denmark. The Party also provided the WEM, WOM and WAM scenarios for the Faroe Islands. During the review, the Party provided the WOM scenario for Denmark. Under the WEM scenario for Denmark, emissions in 2030 (excluding LULUCF) are projected to be 58.0 per cent below the 1990 level and 28.4 per cent below the 2020 level.

139. Denmark's main policy framework relating to energy and climate change is the 2020 Danish Climate Act. The Party described the mitigation actions that it has implemented to help it achieve its 2020 and longer-term targets, which include the 2018 Energy Agreement and 2020 Climate Agreement for Energy and Industry, which provide for taxes and incentives to promote energy saving and efficiency, as well as the use of renewable energy.

140. Denmark continued to provide climate financing to developing countries in line with its climate finance programmes such as the strategy for development cooperation and humanitarian action, The World 2030. It has increased its contributions by 24.4 per cent since the BR4; its public financial support in 2019–2020 totalled USD 545.24 million. For those years, Denmark provided more support for mitigation. The biggest share of support went to programmes in energy, water and sanitation, urban and rural development and cross-cutting projects. An example of this support is Denmark's bilateral programme with Kenya, supporting Climate Technologies and Related Innovative Business Models Development.

141. Denmark continued to provide support for technology development and transfer and capacity-building. Priority for technological support was given to projects and programmes in mitigation and adaptation in countries in Africa and Asia. Over time, the focus has remained the same. Priority for capacity-building support was given to projects and programmes in mitigation and adaptation in Africa and Asia and the focus has remained the same over time.

142. In its NC8 Denmark provided information on the expected impacts of climate change in the country; the adaptation policies covering regional, sectoral and cross-sectoral vulnerabilities and considerations; and an outline of the action taken to implement Article 4, paragraph 1(b) and (e), of the Convention with regard to adaptation. Denmark has addressed adaptation matters through the adoption of an action plan for a 'climate proof' Denmark, launched in December 2012. During the review, the Party explained that the country's first national adaptation plan was published in October 2023 and includes a range of measures, focusing on State involvement in reinforcing protection against coastal flooding and local authorities' role in managing a rise in the level of groundwater.

143. In its NC8 Denmark provided information on its activities relating to research and systematic observation. It highlighted the important role of the Danish Meteorological Institute and the contributions of the Danish universities. The Danish Meteorological Institute Climate Atlas is a tool, launched in 2019 and updated in 2022, that provides climate services based on fundamental climate data. The Programme for Monitoring the Greenland Ice Sheet, launched in 2007, and the Greenland Climate Network, established in 1995, deliver data on the mass balance of the Greenland ice sheet in near real time.

144. In its NC8 Denmark provided information on its actions relating to education, training and public awareness. Denmark has a long tradition of involving the public in the environmental field and the focus on sustainable development has been strengthened in education programmes in recent years. Since 2019, the involvement of civil society in environmental matters has been further strengthened through the establishment of a youth climate council, 14 climate partnerships for cooperation with the business community, and a

citizens' assembly on climate, which convened in 2021 and 2022 and developed a set of recommendations on addressing climate change.

145. In the course of the review, the ERT formulated the following recommendations for Denmark to improve its adherence to the UNFCCC reporting guidelines on NCs in its next NC:

- (a) To improve the completeness of its reporting by:
  - (i) Providing information on the changes in national inventory arrangements or clearly explaining that there have been no changes since the last NC (see issue 3 in table I.1);
  - (ii) Including, as appropriate, quantitative estimates of the impact of individual PaMs or groups of PaMs or explaining why such estimates were not provided (see issue 7 in table I.2);
  - (iii) Reporting on how the Party believes its PaMs are modifying longer-term trends in anthropogenic GHG emissions and removals consistent with the objective of the Convention (see issue 9 in table I.2);
  - (iv) Reporting a WEM projection for Greenland (see issue 1 in table I.3);
  - (v) Presenting projections for the Faroe Islands on a sectoral basis, including, to the extent possible, using the same sectoral categories as used for the GHG inventory, explaining clearly the sectors covered and the reasons for excluding any sectors from the projections (see issue 4 in table I.3);
  - (vi) Providing projections for the Faroe Islands on a gas-by-gas basis for the following GHGs: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub> and NF<sub>3</sub> (treating PFCs and HFCs collectively in each case) (see issue 5 in table I.3);
  - (vii) Presenting the estimated total effect of implemented and adopted PaMs by gas and in subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year compared with a situation without such PaMs (see issue 8 in table I.3);
  - (viii) Including information on the support provided for the development and enhancement of the endogenous capacities and technologies of non-Annex I Parties (see issue 1 in table I.4);
  - (ix) Including, where feasible, success and failure stories in relation to technology transfer (see issue 2 in table I.4);
- (b) To improve the transparency of its reporting by:
  - (i) Providing summary information on the national inventory arrangements for Denmark by clearly identifying where such information is included in the NC (see issue 2 in table I.1);
  - (ii) Reporting correct information on its PaMs, including the GHGs and sectors affected and by using appropriate notation keys, as relevant (see issue 6 in table I.2);
  - (iii) Providing correct and consistent information on the WEM projection for Denmark (see issue 3 in table I.3);
  - (iv) Providing transparent information on the estimated and expected total effect of implemented and adopted PaMs by presenting an estimate of the total effect of the PaMs, in accordance with the WEM definition, compared with a situation without such PaMs in terms of GHG emissions avoided or sequestered, by gas (on a CO<sub>2</sub> eq basis), in the most recent inventory year and in subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year (see issue 7 in table I.3);
- (c) To improve the timeliness of its reporting by submitting its next NC on time (see para. 5).

146. In the course of the review of Denmark’s BR5, the ERT formulated the following recommendations relating to adherence to the UNFCCC reporting guidelines on BRs:

- (a) To improve with the completeness of its reporting by:
  - (i) Providing information on the national inventory arrangements and changes in national inventory arrangements for Greenland and the Faroe Islands or clearly explaining if there have been no changes in such arrangements since the last NC or BR (see issue 2 in table II.1);
  - (ii) Reporting a WEM projection for Greenland (see issue 1 in table II.5);
  - (iii) Presenting projections for the Faroe Islands on a sectoral basis, to the extent possible, using the same sectoral categories as used for the GHG inventory, explaining clearly the sectors covered and the reasons for excluding any sectors from the projections (see issue 3 in table II.5);
  - (iv) Presenting projections for the Faroe Islands on a gas-by-gas basis for the following GHGs: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub> and NF<sub>3</sub> (treating PFCs and HFCs collectively in each case) (see issue 4 in table II.5);
  - (v) Including information on the support provided for the development and enhancement of the endogenous capacities and technologies of non-Annex I Parties (see issue 4 in table II.6);
- (b) To improve with the transparency of its reporting by:
  - (i) Correctly reporting the LULUCF sector as excluded from its target in CTF table 2(b) and explaining that NF<sub>3</sub> is not included in the EU target in CTF table 2(c) (see issue 1 in table II.2);
  - (ii) In relation to the progress towards its quantified economy-wide emission reduction target, reporting the amounts of market-based mechanism units used in 2019 and 2020 or explaining the reasons for not reporting them (e.g. by using appropriate notation keys and/or including relevant explanation in the text and/or CTF tables) (see issue 1 in table II.4);
  - (iii) Including in the relevant CTF table 7(b) the financial support provided to non-Annex I Parties only (see issue 1 in table II.6);
  - (iv) Reporting information on public financial support provided through multilateral and bilateral channels in a consistent manner across CTF table 7 and the textual part of the BR (see issue 2 in table II.6);
  - (v) Reporting the data on the provision of technology development and transfer support provided to non-Annex I Parties in a consistent manner across CTF table 8 and the textual part of the BR (see issue 5 in table II.6);
  - (vi) Reporting the data on capacity-building support provided to non-Annex I Parties in a consistent manner across CTF table 9 and the textual part of the BR (see issue 6 in table II.6);
- (c) To improve timeliness of its reporting (see para. 7 above).

## Annex I

### Assessment of adherence to the reporting guidelines for the eighth national communication of Denmark

Tables I.1–I.7 summarize the ERT assessment of adherence to the UNFCCC reporting guidelines on NCs for Denmark’s NC8.

Table I.1

#### Findings on greenhouse gas inventory information from the review of the eighth national communication of Denmark

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 5 Issue type: transparency Assessment: encouragement	<p>The Party provided information from the 2022 annual submission in the NC8 and BR5 for Denmark, Greenland and the Faroe Islands. However, the ERT noted that the information reported for Greenland on the GHG emissions and removals by gas and source and sink categories in the NC8 differs from that given in the NIR 2022 for 1991–2005.</p> <p>During the review, Denmark acknowledged that the information provided in the table for the source and sink categories for the 1991–2005 time series was not consistent with that reported in the NIR 2022 and provided an updated table with the correct set of values.</p> <p>The ERT encourages Denmark to provide, in its next NC, information on GHG emissions and trends that is consistent with that provided in the most recent annual inventory submission.</p>
2	Reporting requirement specified in paragraph 8 Issue type: transparency Assessment: recommendation	<p>The Party reported summary information on its national inventory arrangements in its NC8, including information for the Kingdom of Denmark (comprising Denmark, Greenland and the Faroe Islands) under the Convention. However, while the information for Denmark’s inventory arrangements was included under national systems in accordance with Article 5, paragraph 1, of the Kyoto Protocol, it was not clearly identified.</p> <p>During the review, Denmark explained that the national inventory arrangements for Denmark are described in detail in the NIR 2022.</p> <p>The ERT recommends that the Party provide, in its next NC, summary information on the national inventory arrangements, and that it make this information easy to identify, for example by including it in a separate section or providing cross-references to those sections where it is contained.</p>
3	Reporting requirement specified in paragraph 8 Issue type: completeness Assessment: recommendation	<p>In its NC8 Denmark did not report information on changes in national inventory arrangements since its previous NC or BR.</p> <p>During the review, Denmark explained that the national inventory arrangements for Denmark, Greenland and the Faroe Islands have not changed between the NC7 and the NC8.</p> <p>The ERT recommends that the Party provide, in its next NC, summary information on the changes in national inventory arrangements or clearly explain if there have been no changes in such arrangements since the last NC.</p>

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.2

**Findings on policies and measures from the review of the eighth national communication of Denmark**

No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 10 Issue type: completeness Assessment: encouragement	In its NC8 the Party did not indicate those PaMs that are innovative and/or effectively replicable by other Parties.  During the review, Denmark explained that while all PaMs are, in principle, replicable, often a factor that limits or determines replicability is the national circumstances of a Party, which are unique to each Party. However, Denmark considers that offshore wind is an area where Denmark, as a first mover, has gained a lot of experience, which it has shared with other Parties through many bilateral programmes.  The ERT encourages Denmark to include, in its next NC, information on PaMs that are innovative and and/or effectively replicable by other Parties.
2	Reporting requirement specified in paragraph 12 Issue type: completeness Assessment: encouragement	In its NC8 the Party did not report information on the actions taken to implement the commitments under Article 4, paragraph 2(e)(ii), of the Convention, which requires the Party to identify and periodically update its own policies and practices which encourage activities that lead to greater levels of anthropogenic GHG emissions than would otherwise occur.  During the review, Denmark stated that no specific analyses have been carried out to identify policies and practices that encourage activities that result in higher levels of anthropogenic GHG emissions than would otherwise occur and explained that the PaMs adopted by the Parliament to achieve the national targets set out in the Danish Climate Act must also take into account the increase in GHG emissions that can be expected from general economic development. As this development is reflected in the annually updated WEM projections, the shortfall in meeting the target takes into account any changes or decisions that will increase Denmark’s GHG emissions. By following this approach, the Government and Parliament will automatically have to adopt emission-reducing measures to compensate for emission-increasing measures. The Party also stated that all new legislation will be assessed to see whether it has a negative effect on GHG emissions.  The ERT reiterates the encouragement provided in the previous review report for the Party to include, in its next NC information on action taken to implement commitments under Article 4, paragraph 2(e)(ii), of the Convention.
4	Reporting requirement specified in paragraph 16 Issue type: transparency Assessment: encouragement	The ERT noted that the Party presented groups of PaMs in the NC8 (annex B). However, it did not provide any information on these groups of PaMs, such as their estimated mitigation impacts or the individual PaMs they cover.  During the review, Denmark explained that these groups of PaMs are mostly cross-cutting (e.g. they are all energy efficiency PaMs or all renewable energy related PaMs) and, as such, they cannot be reported under any of the sectors detailed in the NC8. The Party also explained that it cannot provide estimates of the expected mitigation impacts of the PaMs or groups of PaMs because the WEM projection scenario is not calculated as the sum of the impacts of individual PaMs, but is based on integrated models and, as such, it is not possible to attribute the total estimated impact in the WEM projection scenario to each individual or grouped policy or measure included in that projection.  The ERT encourages Denmark to provide, in its next NC, detailed information for any groups of PaMs reported, such as the PaMs included. The ERT notes that to enhance transparency, Denmark may report certain groups of PaMs, such as those targeting energy efficiency in transport by passenger cars, F-gas taxes and regulation, and LULUCF activities, under the relevant sectors.
5	Reporting requirement specified in paragraph 18 Issue type: transparency Assessment: encouragement	In its NC8 Denmark did not transparently describe how progress with PaMs to mitigate GHG emissions is monitored and evaluated over time and what institutional arrangements are in place in that regard. The ERT noted that Denmark reported some information on this reporting element in the NC7.  During the review, Denmark explained that the information is included in the NC8, which presents the annual cycle under the Danish Climate Act and the Climate Programme. However, the ERT noted that this information is not clearly identified in the NC8.



No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
6	Reporting requirement specified in paragraph 19 Issue type: transparency Assessment: recommendation	<p>The ERT encourages Denmark, in its next NC, to clearly identify the information on how progress with the GHG mitigation PaMs is monitored and evaluated over time and the related institutional arrangements.</p> <p>The ERT identified several inconsistencies between the PaMs reported in the NC8 and those reported in BR5 CTF table 3, particularly with regard to the GHGs concerned (e.g. for the mileage-based toll for trucks), the subsidy for biogas (for transport and processes), the sectors concerned (e.g. for the nature package), and the use of notation keys for estimating the mitigation impact (e.g. the use of “IE” for certain PaMs that are not estimable and which should therefore be “NA”).</p> <p>During the review, Denmark acknowledged that the information reported in the NC8 was incorrect and provided an annotated version of CTF table 3, which addressed the issues identified by the ERT.</p> <p>The ERT recommends that Denmark report correct information on its PaMs in its NC, including the GHGs and sectors concerned, and use the appropriate notation keys, as relevant.</p>
7	Reporting requirement specified in paragraph 20 Issue type: completeness Assessment: recommendation	<p>In its NC8 the Party did not report, as appropriate, quantitative estimates of the impact of individual PaMs or groups of PaMs and did not explain why such estimates were not provided. The ERT noted that the Party provided such estimates in previous submissions and that mitigation impacts of agreements made since the 2020 Danish Climate Act are provided in the NC8.</p> <p>During the review, Denmark explained that estimates of the mitigation impacts of all individual PaMs were not provided because the WEM projection scenario in Denmark is not calculated as the sum of the impacts of individual PaMs, but is based on integrated models. As such, it is not possible to attribute the total estimated impact of all the PaMs included in the WEM projection scenario to each individual policy or measure or group of PaMs. The same applies to the mitigation impacts of the PaMs adopted since 2019 and reported in table 5.8 of the NC8. Denmark also shared the 2023 Climate Programme, published after the NC8 submission, which shows the mitigation impacts of analysed PaMs and their associated costs (table 7.1). The ERT noted that a similar table was included in the previous versions of the Climate Programme (2020, 2021 and 2022), which could be the basis for reporting quantitative estimates of the impacts of individual PaMs or groups of PaMs.</p> <p>The ERT recommends that Denmark include in its next NC, as appropriate, quantitative estimates of the impact of individual PaMs or groups of PaMs or explain why such estimates were not provided.</p>
8	Reporting requirement specified in paragraph 21 Issue type: completeness Assessment: encouragement	<p>In its NC8 the Party did not report on the costs of implementing PaMs. The Party also did not report any information regarding the non-GHG mitigation benefits of PaMs.</p> <p>During the review, Denmark explained that the mitigation effects of the analysed PaMs and their associated costs were published in table 7.1 of the 2023 Climate Programme, which was published after the NC8 submission. The ERT noted that a similar table was included in the previous versions of the Climate Programme (2020, 2021 and 2022), which could be the basis for estimating the costs of certain adopted or implemented PaMs. The Party further explained that systematic and coherent information on the non-GHG benefits of the implemented or adopted PaMs reported in the NC8/BR5 is not available. Although co-benefits or non-GHG benefits are usually included in the analysis of new PaMs proposed for adoption by a majority in Parliament, changes are often made during the political negotiations before a proposal is finally adopted. This is always accompanied by an update of the analysis of the impact of the adopted proposal, but not always by an update of the analysis of costs and side effects.</p> <p>The ERT reiterates the encouragement from the previous review report for the Party to include, in its next NC, the costs of implementing PaMs, and information on the non-GHG mitigation benefits of PaMs.</p>
9	Reporting requirement specified in paragraph 22 Issue type: completeness	<p>In its NC8 the Party did not report on how it believes its PaMs are modifying longer-term trends in anthropogenic GHG emissions and removals consistent with the objective of the Convention.</p> <p>During the review, Denmark explained that many of the implemented and adopted PaMs will lead to permanent changes, including in the energy mix in Denmark (e.g. with more</p>

<i>No.</i>	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
	Assessment: recommendation	than 100 per cent renewable energy in electricity production by 2030), which will modify longer-term trends in anthropogenic GHG emissions and removals.  The ERT recommends that Denmark, in its next NC, report on how it believes its PaMs are modifying longer-term trends in anthropogenic GHG emissions and removals consistent with the objective of the Convention.

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.3

**Findings on projections including aggregate effects of policies and measures reported in the eighth national communication of Denmark**

<i>No.</i>	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 25  Issue type: completeness Assessment: recommendation	In its NC8 the Party reported WEM projections for Denmark and the Faroe Islands. However, the Party did not report WEM projections for Greenland. The ERT noted that Greenland, being part of the Kingdom of Denmark, is covered under the Convention.  During the review, Denmark explained that under the Act on Self-Government, climate policy in Greenland is under the jurisdiction and responsibility of the Government of Greenland and the Parliament, and thus includes elaboration of Greenlandic GHG projections. The Party further explained that it was not possible to prepare the projections for the NC8 owing to limited resources, but the Government of Greenland expects to include WEM projections in future reporting.  The ERT recommends that the Party include WEM projections for Greenland in its next NC.
2	Reporting requirement specified in paragraph 25  Issue type: completeness Assessment: encouragement	In its NC8 the Party did not report WOM and WAM projections for Denmark and Greenland. The Party explained that reporting of the WAM projection is not feasible for Denmark because it did not have any planned PaMs, but it did not clearly explain why the WOM projection were not reported. The Party also did not include an explanation in its NC8 as to why it was not feasible to report WAM and WOM projections for Greenland.  During the review, Denmark explained that WAM and WOM projections for Greenland were not yet elaborated owing to a high degree of uncertainty related to these scenarios. The Party also provided estimates for the WOM scenario for Denmark.  The ERT reiterates the encouragement from the previous review report for the Party to either report, in its next NC, the WOM projections for Denmark and Greenland or explain why developing this scenario is not appropriate to its national circumstances. The ERT also encourages Denmark to include, in its next NC, WAM projections for Greenland or explain why developing this scenario is not appropriate to its national circumstances.
3	Reporting requirement specified in paragraph 25  Issue type: transparency Assessment: recommendation	The Party reported in its NC8 a WEM scenario encompassing PaMs implemented and adopted until December 2021. However, the ERT noted differences between the projected total emissions in the WEM scenario (including LULUCF, with indirect CO <sub>2</sub> ) for 2025–2040 reported in table 4.2 and those reported in annex C.  During the review, Denmark explained that the information included in table 4.2 in the report was incorrect and provided the ERT with corrected version of the table.  The ERT recommends that the Party provide correct and consistent information on its WEM projections in its next NC.
4	Reporting requirement specified in paragraph 31  Issue type: completeness Assessment: recommendation	The Party reported projections for Denmark on a sectoral basis using the categories for GHG inventories but did not report projections on a sectoral basis for the Faroe Islands.  During the review, Denmark explained that the projections reported for the Faroe Islands cover only the energy sector (without transport) and that projections for other sectors have not been prepared owing to limited resources.  The ERT recommends that the Party, in its next NC, present its projections for the Faroe Islands on a sectoral basis, including, to the extent possible, using the same sectoral

No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
		categories as used for the GHG inventory, explaining clearly the sectors covered and the reasons for excluding any sectors from the projections.
5	Reporting requirement specified in paragraph 32 Issue type: completeness Assessment: recommendation	The Party did not report projections on a gas-by-gas basis for the Faroe Islands. During the review Denmark explained that the projections for the Faroe Islands cover only CO <sub>2</sub> emissions because the climate policy of the Faroe Islands does not explicitly include goals for a reduction a CH <sub>4</sub> and N <sub>2</sub> O emissions, and consequently projections for these gases have not been prepared. The ERT recommends that the Party present, in its next NC, its projections for the Faroe Islands on a gas-by-gas basis for the following GHGs: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, PFCs, HFCs, SF <sub>6</sub> and NF <sub>3</sub> (treating PFCs and HFCs collectively in each case).
6	Reporting requirement specified in paragraph 32 Issue type: completeness Assessment: encouragement	The Party did not report in its NC8 projections of indirect GHGs (CO, NO <sub>x</sub> and NMVOCs) or SO <sub>2</sub> . During the review Denmark provided projections of indirect GHGs (CO, NO <sub>x</sub> and NMVOCs) and SO <sub>2</sub> . The ERT reiterates the encouragement from the previous review report for Denmark to include, in its next NC, projections for indirect GHGs.
7	Reporting requirement specified in paragraph 37 Issue type: transparency Assessment: recommendation	The Party did not report the estimated and expected total effects of implemented and adopted PaMs by presenting an estimate of their total effect, in accordance with the WEM definition, compared with a situation without such PaMs, in terms of the GHG emissions avoided or sequestered by gas (on a CO <sub>2</sub> eq basis), for the most recent inventory year and subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year. The ERT noted that the Party reported only the estimated GHG emission reduction effects of agreements that include reduction effects since the agreement on the 2020 Danish Climate Act (December 2019) and the shortfalls in achieving the emission reductions necessary for meeting the domestic targets for 2025 and 2030 for PaMs implemented and adopted since 2019. During the review, Denmark explained that the relevant information on all implemented and adopted PaMs currently in place and included in the WEM projection scenario was provided in the NC8 (chap. 4, chap. 5 and annex B). However, the ERT noted that this information does not fully convey the total effects of implemented and adopted PaMs. The ERT recommends that the Party clearly present in its next NC the estimated and expected total effect of implemented and adopted PaMs by presenting an estimate of their total effect, in accordance with the WEM definition, compared with a situation without such PaMs, in terms of GHG emissions avoided or sequestered by gas (on a CO <sub>2</sub> eq basis), for the most recent inventory year and subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year.
8	Reporting requirement specified in paragraph 37 Issue type: completeness Assessment: recommendation	The Party did not report the estimated total effect of implemented and adopted PaMs in accordance with the WEM definition, compared with a situation without such PaMs by gas and in subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year. The ERT noted that the Party reported the effects of implemented and adopted PaMs since 2019, comparing them with projections from 2019, 2020, 2021 and 2022. During the review the Party explained that the estimate of the total effect of PaMs is assessed in accordance with the WEM definition when comparing it with previous projections, which in principle can be regarded as a WOM definition. Furthermore, the Party provided an estimate of the WOM projection together with an estimate of the total effect of PaMs, but the estimate was not presented by gas (as explained by the Party, it was not possible to provide such an estimate) and included only 2020 and 2030. The ERT recommends that the Party present, in its next NC, the estimated total effect of implemented and adopted PaMs by gas (on a CO <sub>2</sub> eq basis), for the most recent inventory year and subsequent years that end in either a zero or a five, extending at least 15 years from the most recent inventory year, compared with a situation without such PaMs.

No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
9	Reporting requirement specified in paragraph 40 Issue type: transparency Assessment: encouragement	<p>In its NC8 the Party did not report information on the strengths and weaknesses of the model or approach used for preparing the projections reported in its NC8. In addition, the Party did not provide explanatory information on the approaches used for preparing the projections for the Faroe Islands, including for which sectors and gases they were used, their characteristics, or explanation of overlaps or synergies that may exist between PaMs.</p> <p>During the review, Denmark provided information on the strengths and weaknesses of the models and approaches used for the Danish projections, Furthermore, the Party explained that the Faroese administration did not have enough resources to provide all the required information and will strive to provide more comprehensive information in the next NC.</p> <p>The ERT encourages the Party to include, in its next NC, information on the strengths and weaknesses of the model or approach used for preparing its projections for Denmark. The ERT also encourages the Party to include complete explanatory information for the models and approaches it used for preparing its projections for the Faroe Islands, including for which sectors and gases they were used, their characteristics, and an explanation of overlaps or synergies that may exist between PaMs.</p>
10	Reporting requirement specified in paragraph 42 Issue type: completeness Assessment: encouragement	<p>In its NC8 the Party reported the main differences in the results between the projections reported in the current NC and those reported in previous NCs. However, the ERT noted that the Party did not report the main differences between NCs with regard to changes in methods and assumptions used.</p> <p>During the review, Denmark provided an explanation of the main differences in methods and assumptions used between NCs.</p> <p>The ERT reiterates the encouragement from the previous review report for Denmark to report in its next NC the main differences in the assumptions and methods used to prepare projections between the current and previous submissions.</p>

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.4

**Findings on financial, technological and capacity-building support from the review of the eighth national communication of Denmark**

No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 57 Issue type: completeness Assessment: recommendation	<p>In its NC8 the Party did not provide information on the support provided to non-Annex I Parties for the development and enhancement of their endogenous capacities and technologies.</p> <p>During the review, Denmark explained that it provided information in the NC8 on how the provision of support to non-Annex I countries enhanced their endogenous capacities and technologies and that the examples included in the report illustrated how this was carried out. The Party also explained that all capacity-building activities focus on enhancing existing endogenous processes and capacities to ensure that they adequately and sustainably respond to the needs and challenges of countries, communities and individuals.</p> <p>The ERT reiterates the recommendation from the previous review report that Denmark include in its next NC information on the support provided for the development and enhancement of the endogenous capacities and technologies of non-Annex I Parties. The ERT noted that the Party could, for example, report on whether, in providing its support, it has used technologies developed within the country receiving support or was assisted by a team of in-country and external individuals, or whether technologies were developed elsewhere and adapted to local needs and conditions.</p>
2	Reporting requirement specified in paragraph 57	<p>In its NC8 the Party did not report on the success or failure stories related to the reported technology development and transfer projects. Denmark reported in its BR5 that it undertakes prior engagement, review and evaluation, where possible, as part of implementing effective development cooperation with non-Annex I Parties.</p>

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
	Issue type: completeness Assessment: recommendation	During the review, Denmark indicated that it periodically undertakes reviews and evaluations of technology development and transfer projects. The Party explained that its reporting on the success or failure stories related to such projects could be further improved by adding a reference to and a summary of the two cross-cutting studies undertaken to evaluate the Danish support for adaptation and mitigation respectively.  The ERT reiterates the recommendation from the previous review report that Denmark include in its next NC, where feasible, success and failure stories in relation to technology transfer.

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.5

**Findings on vulnerability assessment, climate change impacts and adaptation measures from the review of the eighth national communication of Denmark**

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 47 Issue type: transparency Assessment: encouragement	In its NC8 Denmark did not follow the structure for reporting information on vulnerability assessment, climate change impacts and adaptation measures as encouraged by the UNFCCC reporting guidelines on NCs. For example, the information on “climate modelling, projections and scenarios” and on “domestic adaptation policies and strategies” is given in many different places.  During the review, the Party explained that it presented the information in the NC8 using the structure followed in the NC7 and explained that it will adhere to the structure proposed in the UNFCCC reporting guidelines on NCs for its reporting in the NC9.  The ERT encourages Denmark to use the structure proposed in the UNFCCC reporting guidelines on NCs for reporting the information on vulnerability assessment, climate change impacts and adaptation measures in the next NC.

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.6

**Findings on research and systematic observation from the review of the eighth national communication of Denmark**

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 65 Issue type: transparency Assessment: encouragement	In its NC8 Denmark did not explicitly identify opportunities for and barriers to free and open international exchange of data and information and report on action taken to overcome such barriers. The ERT noted that the information reported in the NC8 (annex E, section 1.3), in which Denmark presented the Danish Meteorological Institute’s efforts to ensure data exchange and availability, includes examples of action taken to overcome such barriers.  During the review, Denmark further explained that the sole possible barrier to free and open exchange of data it identified is bandwidth constraints affecting speeds in downloading the data, which are freely available on the Danish Meteorological Institute website.  The ERT reiterates the encouragement from the previous review report for Denmark to include, in its next NC, information on the identification of opportunities for and barriers to free and open international exchange of data.

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

Table I.7

**Findings on education, training and public awareness from the review of the eighth national communication of Denmark**

No.	<i>Reporting requirement, issue type and assessment</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 68 Issue type: completeness Assessment: encouragement	In its NC8 Denmark did not report on the extent of public participation in the preparation or domestic review of the NC.  During the review, the Party explained that this reporting provision is non-mandatory (“may”) and that it has prioritized fulfilling the “shall” and “should” requirements. The Party further explained that information on public participation in climate policymaking in Denmark is included in chapters 4.1 and 9.4 of the NC8 and that public interest is in the climate policymaking, not in climate policy compilation documents.  The ERT reiterates the encouragement from the previous review report for Denmark to report on the extent of public participation in the preparation or domestic review of the NC.

*Note:* Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs.

## Annex II

### Assessment of adherence to the reporting guidelines for the fifth biennial report of Denmark

The BR5 of Denmark is the final BR under the measurement, reporting and verification system established under the Convention.<sup>1</sup> Nevertheless, ERTs continue to provide recommendations and encouragements to the Parties on completeness, transparency and adherence to the UNFCCC reporting guidelines on BRs. Parties may find these recommendations and encouragements relevant, as appropriate, when preparing their initial biennial transparency report under the enhanced transparency framework of the Paris Agreement. Tables II.1–II.6 summarize the ERT assessment of adherence to the UNFCCC reporting guidelines on BRs for Denmark’s BR5.

Table II.1

#### Findings on greenhouse gas emissions and trends from the review of the fifth biennial report of Denmark

No.	Reporting requirement and issue type	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 2 Issue type: transparency Assessment: encouragement	<p>The percentage change in the total GHG emissions for 1990–2020 for Faroe Islands in the BR5 (69 per cent) differs from that provided in the NIR 2022 (74 per cent).</p> <p>During the review, Denmark explained that the F-gas emissions in the Faroe Islands were tentatively recalculated in 2022, which resulted in a reduction in F-gas emissions of approximately 50 per cent and a consequential change in their share in the total emissions from 10 to 5 per cent. The Party explained that while it used the values reported in the NIR 2022 in the figures and tables, it used the recalculated values in the textual part of the BR5, resulting in the discrepancy in the values reported.</p> <p>The ERT encourages Denmark to provide information on the national GHG inventory on emissions and emission trends that is consistent with that provided in the most recent annual inventory submission or fully explain any differences or inconsistencies and their reasons.</p>
2	Reporting requirement specified in paragraph 3 Issue type: completeness Assessment: recommendation	<p>In its BR5 Denmark did not report summary information on the national inventory arrangements and changes in national inventory arrangements since the last NC or BR for Greenland and the Faroe Islands.</p> <p>During the review, Denmark explained that these arrangements have not changed since the BR4.</p> <p>The ERT recommends that the Party provide summary information on the national inventory arrangements and changes in national inventory arrangements since the last NC or BR for Greenland and the Faroe Islands, or clearly explain if there have been no changes in such arrangements.</p>

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on BRs.

<sup>1</sup> The Conference of the Parties, by decision 1/CP.24, decided that the final BRs shall be those submitted to the secretariat no later than 31 December 2022 and reaffirmed that, for Parties to the Paris Agreement, following the submission of the final BR, the modalities, procedures and guidelines contained in the annex to decision 18/CMA.1 will supersede the measurement, reporting and verification system established under decision 1/CP.16, paras. 40–47 and 60–64, and decision 2/CP.17, paras. 12–62.

Table II.2

**Findings on the quantified economy-wide emission reduction target from the review of the fifth biennial report of Denmark**

No.	<i>Reporting requirement and issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 5 Issue type: transparency Assessment: recommendation	<p>In CTF table 2(b), the Party reported that LULUCF is included in its quantified economy-wide emission reduction target for 2020. Furthermore, the Party reported blank cells for the GWP values used for NF<sub>3</sub> in CTF table 2(c) without providing an explanation. However, the ERT noted that LULUCF and NF<sub>3</sub> are not included in the EU target for 2020 and as such, the Party should report “No” for LULUCF in CTF table 2(b) and explain why it did not report GWP values for NF<sub>3</sub> in CTF table 2(c) (e.g. through a notation key and/or a footnote).</p> <p>During the review, the Party explained that it erroneously reported “Yes” for the LULUCF sector in CTF table 2(b) instead of “No” and that the correct information is reported in the textual part of the BR5. The Party further explained that it erroneously reported blank cells for the GWP values used for NF<sub>3</sub> instead of “NA” and that the correct information is reported in the textual part of the BR5.</p> <p>The ERT recommends that the Party correctly report the LULUCF sector as excluded from its target in CTF table 2(b). The ERT further recommends that the Party explain that NF<sub>3</sub> is not included in the EU target in CTF table 2(c) (e.g. by using a relevant notation key and/or providing an explanation).</p>

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on BRs.

Table II.3

**Findings on mitigation actions and their effects from the review of the fifth biennial report of Denmark**

No.	<i>Reporting requirement and issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 8 Issue type: transparency Assessment: encouragement	<p>The Party reported limited information on its assessment of the economic and social consequences of its response measures. In addition, the information was difficult to find because it was reported through multiple references: the BR5 indicates that information on this matter can be found in chapter 15 of the NIR, without specifying the submission year of the report. The NIR 2023 does not have a chapter 15, but the NIR 2022 does and refers to the NIR 2011, indicating that no changes have been made to the assessment since then. Furthermore, the NIR 2011 describes EU initiatives to address the negative impacts of response measures, including many examples that are now outdated or not relevant for reporting in the BR5.</p> <p>During the review, Denmark indicated that it does not consider that its response measures have a negative impact on other countries, and that, on the contrary, the reduction in emissions in Denmark will contribute to limiting dangerous climate change in all countries. It also stated that it would continue to take into account the special needs and concerns of developing countries, and in particular the least developed countries, to the greatest extent possible in international forums and efforts.</p> <p>The ERT reiterates the encouragement from the previous review report for Denmark to include, as far as possible, clear and updated information on its assessment of the economic and social consequences of its response measures.</p>

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on BRs.



Table II.4

**Findings on estimates of emission reductions and removals and on the use of units from market-based mechanisms and land use, land-use change and forestry from the review of the fifth biennial report of Denmark**

No.	Reporting requirement and issue type	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 10 Issue type: transparency Assessment: recommendation	In CTF table 4, the Party did not report the market-based mechanism units used in 2019 and 2020, leaving the corresponding cells in columns F and G blank without providing an explanation (e.g. in a footnote). During the review, the Party explained that it did not report the market-based mechanism units used in 2019 and 2020 in error, and that it should have been reported as “NA”, as correctly reported in the textual part of BR5. The ERT recommends that the Party report the amounts of market-based mechanism units used in 2019 and 2020 or explain the reasons for not reporting them (e.g. by using appropriate notation keys and/or providing a relevant explanation).

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on BRs.

Table II.5

**Findings on projections reported in the fifth biennial report of Denmark**

No.	Reporting requirement and issue type	Description of the finding with recommendation or encouragement
1	Reporting requirement specified in paragraph 25 Issue type: completeness Assessment: recommendation	The Party reported WEM projections for Denmark and the Faroe Islands in its BR5. However, the ERT noted that the Party did not report WEM projections for Greenland, which, being part of the Kingdom of Denmark, is covered under the Convention. During the review, Denmark explained that under the Act on Self-Government, climate policy in Greenland is under the jurisdiction and responsibility of the Government of Greenland and the Parliament. This includes elaboration of Greenlandic GHG projections. The Party also explained that it was not possible to prepare the projections for BR5 owing to limited resources, but the Government of Greenland expects to include WEM projections in future reporting. The ERT recommends that the Party provide a WEM projection for Greenland.
2	Reporting requirement specified in paragraph 25 Issue type: completeness Assessment: encouragement	The Party did not report WOM and WAM projections for Denmark and Greenland in its BR5. The ERT noted that WOM projections are mentioned in the textual part of the BR, but no information is included in CTF table 6(b). The Party explained that reporting the WAM projection is not feasible for Denmark because it did not have any planned PaMs but did not clearly explain why the WOM projection could not be reported. The Party also did not explain why it was not feasible to report the WOM and WAM projections for Greenland. During the review, Denmark explained that WAM and WOM projections for Greenland were not yet elaborated owing to a high degree of uncertainty related to these scenarios. Furthermore, the Party provided estimates for the WOM scenario for Denmark. The ERT encourages the Party to either report the WOM projections for Denmark and Greenland or explain why developing this scenario is not appropriate to its national circumstances. The ERT encourages Denmark to report WAM projections for Greenland or explain why developing this scenario is not appropriate to its national circumstances.
3	Reporting requirement specified in paragraph 31 Issue type: transparency Assessment: recommendation	The Party reported projections for Denmark on a sectoral basis using the categories for GHG inventories but did not report projections on a sectoral basis for the Faroe Islands. During the review, Denmark explained that the projections reported for the Faroe Islands cover only the energy sector (without transport) and that projections for other sectors have not been prepared owing to limited resources. The ERT recommends that the Party present its projections for the Faroe Islands on a sectoral basis, to the extent possible, using the same sectoral categories as used for the GHG inventory, explaining clearly the sectors covered and the reasons for excluding any sectors from the projections.

<i>No.</i>	<i>Reporting requirement and issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
4	Reporting requirement specified in paragraph 31 Issue type: completeness Assessment: recommendation	The Party did not report projections on a gas-by-gas basis for the Faroe Islands. During the review Denmark explained that the projections for the Faroe Islands cover only CO <sub>2</sub> emissions because the climate policy of Faroe Islands does not explicitly include goals for a reduction in CH <sub>4</sub> and N <sub>2</sub> O emissions, and consequently projections for these gases have not been prepared. The ERT recommends that the Party present its projections for the Faroe Islands on a gas-by-gas basis for the following GHGs: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, PFCs, HFCs, SF <sub>6</sub> and NF <sub>3</sub> (treating PFCs and HFCs collectively in each case).
5	Reporting requirement specified in paragraph 32 Issue type: completeness Assessment: encouragement	The Party did not report in its BR5 projections of indirect GHGs (CO, NO <sub>x</sub> and NMVOCs) or SO <sub>2</sub> . During the review, Denmark provided projections of indirect GHGs (CO, NO <sub>x</sub> and NMVOCs) and SO <sub>2</sub> . The ERT reiterates the encouragement from the previous review report for Denmark to report projections for indirect GHGs.
6	Reporting requirement specified in paragraph 40 Issue type: transparency Assessment: encouragement	In its BR5 the Party did not report information on their strengths and weaknesses of model or approach used for preparing its projections reported in its BR5. In addition, the Party did not provide explanatory information on the approaches used for preparing the projections for Faroe Islands, including for which sectors and gases they were used, their characteristics, explanation of overlaps or synergies that may exist between PaMs. During the review, Denmark provided information on the strengths and weaknesses of the models and approaches used for Danish projections. Furthermore, the Party explained that the Faroese administration did not have enough resources to provide all required information and will strive to provide more comprehensive information in the future. The ERT encourages the Party to include information on the strengths and weaknesses of model or approach used for preparing its projections. The ERT further encourages the Party to include complete explanatory information for the models and approaches it used for preparing its projections for the Faroe Islands, including for which sectors and gases they were used, their characteristics, and explanation of overlaps or synergies that may exist between PaMs.
7	Reporting requirement specified in paragraph 42 Issue type: completeness Assessment: encouragement	In its BR5 the Party reported the main differences in results between the projections reported in the BR5 and those reported in previous NCs. However, the ERT noted that the Party did not report the main differences between BR5 and previous NCs with regard to changes in methods and assumptions used. During the review, Denmark provided explanation on the main differences in methods and assumptions used between NCs. The ERT encourages Denmark to report the main differences in the assumptions and methods used to prepare projections between the current and previous NCs.

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs, as per para. 11 of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on NCs and on BRs.

Table II.6

**Findings on provision of financial, technological and capacity-building support to developing country Parties from the review of the fifth biennial report of Denmark**

<i>No.</i>	<i>Reporting requirement and issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
1	Reporting requirement specified in paragraph 17 Issue type: transparency Assessment: recommendation	Denmark reported information on its provision of financial support to non-Annex I Parties as required under the Convention, including on financial support committed and disbursed, allocation channels and annual contributions. However, the ERT noted that the Party also reported in CTF table 7(b) grants for mitigation actions disbursed to Annex I Parties (Türkiye and Ukraine) and included these grants in the total support provided. During the review, Denmark explained that Ukraine was included because it is considered to be a developing country. The Party also explained that it would update the

<i>Reporting requirement and No. issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
	relevant table totals to reflect only the non-Annex I countries to which support was provided.
	The ERT reiterates the recommendation from the previous review report that Denmark provide information on the financial support provided to non-Annex I Parties only.
2 Reporting requirement specified in paragraph 18 Issue type: transparency Assessment: recommendation	Denmark reported information on public financial support provided through multilateral and bilateral channels. However, the Party included in the documentation box for CTF table 7 for 2019 the same information as that for 2020, although there was a slight difference in the information reported in the corresponding tables in the textual part of the BR5 (tables 2019.1.4 and 2019.2.4). For example, it was not clear whether the OECD DAC list of April 2020 or of April 2021 was used for reporting on financial support committed and disbursed in 2019.  During the review, Denmark acknowledged the inconsistency between the documentation boxes in CTF table 7 for 2019 and 2020 and the corresponding tables in the textual part of the BR5 and explained that the OECD DAC lists relevant to the reporting years (April 2020 for 2019 and April 2021 for 2020) were used for reporting on financial support committed and disbursed in 2019 and 2020.  The ERT recommends that the Party report information on public financial support provided through multilateral and bilateral channels in a consistent manner across CTF table 7 and the textual part of the BR.
3 Reporting requirement specified in paragraph 21 Issue type: completeness Assessment: encouragement	Denmark did not report on the success or failure stories related to the reported technology development and transfer projects. The Party reported that it undertakes prior engagement, review and evaluation, where possible, as part of implementing effective development cooperation with non-Annex I Parties.  During the review, Denmark explained that it periodically undertakes reviews and evaluation of technology development and transfer projects. The Party also explained that its reporting on the success or failure stories related to such projects could be further improved by adding a reference to and a summary of the two cross-cutting studies undertaken to evaluate the Danish support for adaptation and mitigation respectively.  The ERT reiterates the encouragement from the previous review report for Denmark to either include success and failure stories or explain why these cannot be provided.
4 Reporting requirement specified in paragraph 21 Issue type: completeness Assessment: recommendation	The Party did not provide information on the support provided to non-Annex I Parties for the development and enhancement of the endogenous capacities and technologies.  During the review, Denmark explained that it provided information in the submission on how the provision of support to non-Annex I countries enhanced their endogenous capacities and technologies and that the examples included in the report illustrated how this was carried out. The Party also explained that all capacity-building activities focus on enhancing existing endogenous processes and capacities to ensure that they adequately and sustainably respond to the needs and challenges of countries, communities and individuals.  The ERT recommends that Denmark include information on the support provided for the development and enhancement of the endogenous capacities and technologies of non-Annex I Parties. The ERT noted that the Party could, for example, report on whether, in providing its support, it has used technologies developed within the country receiving support or was assisted by a team of in-country and external individuals, or whether technologies were developed elsewhere and adapted to local needs and conditions.
5 Reporting requirement specified in paragraph 22 Issue type: transparency Assessment: recommendation	CTF table 8 (Excel spreadsheet) provided by Denmark includes only three rows of information on the provision of technology development and transfer support. However, CTF table 8 presented in the textual part of the BR5 (pp.533–536) has additional data, which are not included in CTF table 8.  During the review, Denmark indicated that the CTF table 8 data reported as an Excel spreadsheet were incorrectly truncated during the data transfer process, resulting in the exclusion of numerous rows in the CTF tables. This was owing to some difficulty in uploading data to the relevant tables.  The ERT recommends that Denmark report the data on the provision of technology development and transfer support provided to non-Annex I Parties in a consistent manner across CTF table 8 and the textual part of the BR.

<i>No.</i>	<i>Reporting requirement and issue type</i>	<i>Description of the finding with recommendation or encouragement</i>
6	Reporting requirement specified in paragraph 23 Issue type: transparency Assessment: recommendation	CTF table 9 (Excel spreadsheet) provided by Denmark includes only three rows of information on the provision of capacity-building support. However, CTF table 9 presented in the textual part of the BR5 (pp.537–545) has numerous entries, which are not included in the CTF table 9 included as an Excel spreadsheet. During the review, Denmark indicated that the CTF table 9 data were incorrectly truncated during the data transfer process, resulting in the exclusion of numerous rows in the CTF tables. This was owing to difficulties in uploading data to the relevant tables. The ERT recommends that Denmark report the data on capacity-building support provided to non-Annex I Parties in a consistent manner across CTF table 9 and the textual part of the BR.

*Note:* Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete and transparent, and thus adheres to the UNFCCC reporting guidelines on BRs.

## Annex III

### Documents and information used during the review

#### A. Reference documents

2022 GHG inventory submission of Denmark. Available at <https://unfccc.int/ghg-inventories-annex-i-parties/2022>.

2023 GHG inventory submission of Denmark. Available at <https://unfccc.int/ghg-inventories-annex-i-parties/2023>.

BR4 of Denmark. Available at <https://unfccc.int/BR4>.

BR5 CTF tables of Denmark. Available at <https://unfccc.int/BR5>.

BR5 of Denmark. Available at <https://unfccc.int/BR5>.

BR5 of the EU. Available at <https://unfccc.int/BR5>.

“Common tabular format for ‘UNFCCC biennial reporting guidelines for developed country Parties’”. Annex to decision 19/CP.18. Available at <https://unfccc.int/resource/docs/2012/cop18/eng/08a03.pdf>.

“Compilation of economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention”. FCCC/SBSTA/2014/INF.6. Available at <http://unfccc.int/resource/docs/2014/sbsta/eng/inf06.pdf>.

European Green Deal. European Commission document COM(2019) 640 final. Available at [https://ec.europa.eu/info/files/communication-european-green-deal\\_en](https://ec.europa.eu/info/files/communication-european-green-deal_en).

“Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”. FCCC/CP/2019/13/Add.1. Available at <https://unfccc.int/documents/210471>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex to decision 15/CMP.1. Available at <https://unfccc.int/documents/4253>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex III to decision 3/CMP.11. Available at <https://unfccc.int/documents/9101>.

“Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”. Annex to decision 13/CP.20. Available at <http://unfccc.int/resource/docs/2014/cop20/eng/10a03.pdf>.

NC7 of Denmark. Available at <https://unfccc.int/NC7>.

NC8 of Denmark. Available at <https://unfccc.int/NC8>.

NC8 of the EU. Available at <https://unfccc.int/NC8>.

Report on the individual review of the annual submission of Denmark submitted in 2022. FCCC/ARR/2022/DNK. Available at <https://unfccc.int/documents/628162>.

Report on the technical review of the BR4 of Denmark. FCCC/TRR.4/DNK. Available at <https://unfccc.int/documents/268250>.

Report on the technical review of the NC7 of Denmark. FCCC/IDR.7/DNK. Available at <https://unfccc.int/documents/192873>.

Report on the technical review of the NC8 and the technical review of the BR5 of the EU. FCCC/IDR.8/EU–FCCC/TRR.5/EU. Available at <https://unfccc.int/documents/630393>.

“UNFCCC biennial reporting guidelines for developed country Parties”. Annex I to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>.

## B. Additional information provided by the Party

Responses to questions during the review were received from Erik Rasmussen (Ministry of Climate, Energy and Utilities of Denmark), including additional material. The following references were provided by Denmark and may not conform to UNFCCC editorial style as some have been reproduced as received:

Draft update of Denmark’s national energy and climate plan for 2021–2030. Available at <https://ens.dk/en/our-responsibilities/energy-climate-politics/eu-energy-union-denmarks-national-energy-and-climate>.

Ministry of Climate, Energy and Utilities. 2020. *Klimahandlingsplan 2020*. Available at <https://kefm.dk/Media/F/5/Klimahandlingsplan%202020a.pdf>.

Ministry of Climate, Energy and Utilities. 2020. *Klimaprogram 2020*. Available at [https://kefm.dk/Media/6/4/Klimaprogram\\_2020.pdf](https://kefm.dk/Media/6/4/Klimaprogram_2020.pdf).

Ministry of Climate, Energy and Utilities. 2021. *Klimaprogram 2021*. Available at [https://kefm.dk/Media/637684923696666735/Klimaprogram%202021%20\(DIGITAL\).pdf](https://kefm.dk/Media/637684923696666735/Klimaprogram%202021%20(DIGITAL).pdf).

Ministry of Climate, Energy and Utilities. 2022. *Klimaprogram 2022*. Available at <https://kefm.dk/Media/637995217763659018/Klimaprogram%202022.pdf>.

Ministry of Climate, Energy and Utilities. 2023. *Klimaprogram 2023*. Available at <https://kefm.dk/Media/638315764817167867/Klimaprogram%202023.pdf>.

World Energy Outlook 2022. Available at <https://www.iea.org/reports/world-energy-outlook-2022>.

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