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Report on the technical review of the fourth biennial report of Denmark

Developed country Parties were requested by decision 2/CP.17 to submit their fourth biennial report to the secretariat by 1 January 2020. This report presents the results of the technical review of the fourth 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 took place from 26 to 30 October 2020 remotely.

Contents

Abbreviations and acronyms

AEA	annual emission allocation
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_4	methane
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CTF	common tabular format
DAC	Development Assistance Committee
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
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
NA	not applicable
NC	national communication
NE	not estimated
NECP	National Energy and Climate Plan
NF_3	nitrogen trifluoride
NIR	national inventory report
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
N_2O	nitrous oxide
OECD	Organisation for Economic Co-operation and Development
PaMs	policies and measures
PFC	perfluorocarbon
SDG	Sustainable Development Goal
SF_6	sulfur hexafluoride
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 centralized technical review of the BR4[1] 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" (annex to decision 13/CP.20).

2. In accordance with the same decision, a draft version of this report was transmitted to the Government of Denmark, which provided comments that were considered and incorporated, as appropriate and with some revisions, into this final version of the report.

3. The review was conducted together with the review of one other Annex I Party from 26 to 30 October 2020 remotely[2] by the following team of nominated experts from the UNFCCC roster of experts: Viviane Dorine Akouande (Cameroon), Isabelle Cabanne (France), Ricardo Delgado (Colombia), Prince Nanlee Johnson (Liberia), Aiymgul Kerimray (Kazakhstan), Thelma Krug (Brazil), Spyridoula Ntemiri (Greece), Maia Tskhvaradze (Georgia) and Marian Van Pelt (United States of America). Ms. Krug and Ms. Van Pelt were the lead reviewers. The review was coordinated by Ruta Bubniene, Anna Sikharulidze and Davor Vesligaj (secretariat).

B. Summary

4. The ERT conducted a technical review of the information reported in the BR4 of Denmark in accordance with the UNFCCC reporting guidelines on BRs (annex I to decision 2/CP.17).

1. Timeliness

5. The BR4 was submitted on 20 December 2019, before the deadline of 1 January 2020 mandated by decision 2/CP.17. The BR4 CTF tables were also submitted on 20 December 2019.

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

6. Issues and gaps identified by the ERT related to the reported information are presented in table 1. The information reported by Denmark in its BR4 mostly adheres to the UNFCCC reporting guidelines on BRs.

Table 1
Summary of completeness and transparency of mandatory information reported by Denmark in its fourth biennial report

Section of BR	*Completeness*	*Transparency*	*Reference to description of recommendation(s)*
GHG emissions and removals	Complete	Transparent	–
Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies	Complete	Transparent	–
Progress in achievement of targets	Complete	Transparent	–

[1] The BR submission comprises the text of the report and the CTF tables, which are both subject to the technical review.

[2] Owing to the circumstances related to the coronavirus disease 2019, the technical review of the BR submitted by Denmark had to be conducted remotely.

Section of BR	*Completeness*	*Transparency*	*Reference to description of recommendation(s)*
Provision of support to developing country Parties	Complete	Mostly transparent	Issues 1–2 in table 12

Note: A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in chap. III below. 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 fourth biennial report

A. Information on greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target

1. Technical assessment of the reported information

7. Total GHG emissions[3] excluding emissions and removals from LULUCF of Denmark[4] decreased by 30.7 per cent between 1990 and 2018, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 28.0 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, an increase in wind and solar power generation, a decrease in gross energy consumption, a ban on the landfilling of combustible waste, a reduction in the number of cattle and the introduction of legislation aimed at improving the utilization of nitrogen in manure.

8. Table 2 illustrates the emission trends by sector and by gas for Denmark. Note that information in this paragraph and table 2 is based on Denmark's 2020 inventory submission, version 4.0, which has not yet been subject to review. All emission data in subsequent chapters are based on Denmark's BR4 CTF tables unless otherwise noted. The emissions reported in CTF table 1 are the same as those reported in the 2019 annual submission.[5] In the BR4, the tables similar to CTF table 1 are presented separately for Denmark, Greenland and the Faroe Islands. The emissions of Greenland and the Faroe Islands each make up about 1 per cent of total emissions of the territory of Denmark. The estimates reported in Denmark's 2020 inventory and annual submissions differ from those in the 2019 submissions as they have been recalculated. The recalculations resulted in the estimate of total emissions being revised as follows: (1) for 1990, for the territory of Denmark, from 71,644.75 to 72,133.25 kt CO_2 eq, and for Denmark only, from 70,290.77 to 70,779.16 kt CO_2 eq; and (2) for 2017, for the territory of Denmark, from 49,506.48 to 49,970.89 kt CO_2 eq, and for Denmark only, from 47,892.35 to 48,353.71 kt CO_2 eq.

Table 2
Greenhouse gas emissions by sector and by gas for Denmark for 1990–2018

	GHG emissions (kt CO_2 eq)					*Change (%)*		*Share (%)*	
	1990	*2000*	*2010*	*2017*	*2018*	*1990–2018*	*2017–2018*	*1990*	*2018*
Sector									
1. Energy	53 678.41	54 857.79	50 605.25	35 263.83	35 320.79	–34.2	–0.9	75.6	71.1
A1. Energy industries	26 532.09	26 304.10	24 495.83	11 781.73	11 696.63	–55.9	–0.7	37.4	23.5

[3] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of CO_2 eq excluding LULUCF and including indirect CO_2 emissions, unless otherwise specified.

[4] The whole territory of Denmark, comprising Denmark, Greenland and the Faroe Islands.

[5] Denmark's annual submission under the Kyoto Protocol for the second commitment period covers Denmark only, without Greenland and the Faroe Islands.

	GHG emissions (kt CO_2 eq)					*Change (%)*		*Share (%)*	
	1990	*2000*	*2010*	*2017*	*2018*	*1990–2018*	*2017–2018*	*1990*	*2018*
A2. Manufacturing industries and construction	5 517.42	6 034.82	4 503.01	4 115.30	4 078.89	–26.1	–0.9	7.8	8.2
A3. Transport	10 954.56	12 676.25	13 632.33	13 445.83	13 714.43	25.2	2.0	15.4	27.6
A4. and A5. Other	10 157.79	8 753.10	7 406.54	5 537.86	5 467.25	–46.2	-1.3	14.3	11.0
B. Fugitive emissions from fuels	516.56	1 089.53	567.53	383.11	363.59	–29.6	–5.1	0.7	0.7
C. CO_2 transport and storage	NO	NO	NO	NO	NO	–	–	–	–
2. IPPU	2 343.82	3 706.07	1 934.35	2 091.89	2 142.45	–8.6	2.4	3.3	4.3
3. Agriculture	13 198.44	11 704.68	10 947.78	11 186.15	11 076.84	–16.1	–1.0	18.6	22.3
4. LULUCF	6 456.83	5 240.46	546.11	4 486.72	6 594.75	2.1	47.0	NA	NA
5. Waste	1 779.34	1 504.87	1 167.39	1 136.16	1 154.40	–35.1	1.6	2.5	2.3
6. Other[a]	NO	NO	NO	NO	NO	–	–	–	–
Gas[b]									
CO_2	54 845.67	55 609.69	50 678.31	36 213.25	36 246.20	–33.9	0.1	77.2	72.9
CH_4	7 941.91	8 194.99	7 667.57	7 280.57	7 368.50	–7.2	1.2	11.2	14.8
N_2O	8 170.03	7 115.79	5 404.16	5 620.14	5 420.93	–33.6	–3.5	11.5	10.9
HFCs	NO, NE, NA	773.47	850.55	486.92	584.95	–	20.1	–	1.2
PFCs	NO, NA	22.57	17.06	1.09	0.01	–	–99.3	–	0.0
SF_6	42.41	56.92	37.14	76.04	73.90	74.3	–2.8	0.1	0.1
NF_3	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	–	–	–	–
Total GHG emissions excluding LULUCF	**71 000.02**	**71 773.41**	**64 654.77**	**49 678.02**	**49 694.48**	**–30.0**	**0.0**	**100.0**	**100.0**
Total GHG emissions including LULUCF	**77 456.85**	**77 013.87**	**65 200.89**	**54 164.74**	**56 289.23**	**–27.3**	**3.9**	**NA**	**NA**
Total GHG emissions excluding LULUCF, including indirect CO_2	**72 133.25**	**72 602.31**	**65 136.79**	**49 970.89**	**49 975.53**	**–30.7**	**0.0**	**NA**	**NA**
Total GHG emissions including LULUCF, including indirect CO_2	**78 590.08**	**77 842.77**	**65 682.91**	**54 457.61**	**56 570.28**	**–28.0**	**3.9**	**NA**	**NA**

Source: GHG emission data: Denmark's 2020 inventory submission, version 4.0.
[a] Emissions and removals reported under the sector other (sector 6) are not included in the total GHG emissions.
[b] Emissions by gas without LULUCF.

9. In brief, the Danish Centre for Environment and Energy is responsible for producing Denmark's GHG emission inventories, which it does in cooperation with ministries, research institutes, organizations and private enterprises through specific agreements on data provision or based on requirements of environmental law. The Centre is also responsible for annual reporting 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 inventory for Greenland to the Centre and the environmental authority in 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 BR3.

2. Assessment of adherence to the reporting guidelines

10. The ERT assessed the information reported in the BR4 of Denmark and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

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

1. Technical assessment of the reported information

11. 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. Greenland and the Faroe Islands are not part of the EU territory; therefore, the EU target is not applicable to these parts of the territory of Denmark.

12. The target for the EU and its member States is formalized in the EU 2020 climate and energy package. The legislative package regulates emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using GWP values from the AR4 to aggregate the GHG emissions of the EU until 2020. Emissions and removals from the LULUCF sector are not included in the quantified economy-wide emission reduction target under the Convention. The EU generally allows 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 can use such units to fulfil their requirements under the EU ETS, and member States can use such units for their national ESD targets, within specific limitations.

13. The EU 2020 climate and energy package includes the EU ETS and the ESD (see paras. 28–29). The EU ETS covers mainly point emissions sources in the energy, industry and aviation sectors. An EU-wide emission cap has been put in place for 2013–2020 with the goal of reducing emissions by 21 per cent below the 2005 level by 2020. For 2030, a reduction target of 43 per cent below the 2005 level has been set for emissions covered by the EU ETS. Emissions from ESD sectors are regulated through member State specific targets that add up to a reduction at the EU level of 10 per cent below the 2005 level by 2020. The ESR, successor to the ESD, was adopted in 2018 with a target of reducing covered emissions by 30 per cent below the 2005 level by 2030.

14. 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 Commission proposed in March 2020 to enshrine the 2050 climate-neutrality target into the first European Climate Law. The European Green Deal calls for increasing the ambition of the 2030 emission reduction target to at least 50 per cent below the 1990 level. Member States will set out any increased ambition in the update of their NECPs.

15. 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 linear path from 36,829.16 kt CO_2 eq in 2013 to 32,063.05 kt CO_2 eq in 2020.[6] Under the ESR, Denmark has a national target of reducing emissions from the covered sectors to 39 per cent below the 2005 level by 2030.

16. In addition to its ESD target, Denmark committed to achieving a domestic target of a 70 per cent reduction in emissions below the 1990 level by 2030. Denmark also reported that its longer-term target is net zero emissions by no later than 2050.

17. Greenland has neither reduction commitments nor targets for GHG emissions for 2013–2020. However, in 2017, the Government of Greenland published the Sector Plan for

[6] According to the EU transaction log.

Energy and Water Supply, which includes the goals to use only renewable energy sources in the public energy supply by 2030 and to gradually replace energy production based on fossil fuels with new energy technologies.

18. In 2009, the Faroe Islands defined a climate policy under which it set a target to reduce GHG emissions by at least 20 per cent in 2020 compared with the 2005 level. It aimed to achieve this target by decreasing its dependency on oil and fossil fuels and significantly increasing its use of renewable energy sources. In 2019, the Ministry of Health and the Interior of the Faroe Islands proposed a new climate policy for 2020–2030 under which GHG emissions from land-based sources are to be reduced by 45 per cent by 2030 compared with the 2010 level. The Faroe Islands is covered by the Denmark's ratification of the Paris Agreement and will prepare and communicate its own nationally determined contribution.

2. Assessment of adherence to the reporting guidelines

19. The ERT assessed the information reported in the BR4 of Denmark and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

C. Progress made towards achievement of the quantified economy-wide emission reduction target

1. Mitigation actions and their effects

(a) Technical assessment of the reported information

20. Denmark provided information on its package of PaMs implemented and adopted, by sector and by gas, in order to fulfil its commitments under the Convention. 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.

21. Denmark's set of PaMs is similar to that previously reported, with a few exceptions. Denmark also provided information on changes since its previous submission to its institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of progress towards its target. In 2018, the Danish Parliament approved an energy agreement setting out the objective of a 55 per cent share of renewables in the energy mix in 2030. In 2019, the Danish Parliament passed the Climate Act, which sets the target of a 70 per cent reduction in emissions by 2030 compared with the 1990 level and includes a commitment to reach net zero emissions by 2050 at the latest. The Climate Act was adopted in its final form in June 2020.

22. The changes in Denmark's institutional arrangements since the BR3 are a change in the name of the ministry in charge of climate change issues from Ministry of Energy, Utilities and Climate to Ministry of Climate, Energy and Utilities; establishing a permanent government committee on the green transition to ensure that effects on the climate, the environment and nature are taken into account when legislation is drafted; forming 'climate partnerships' between the government and businesses to ensure the Danish business community's involvement and cooperation in climate action; and a number of key elements from the new Climate Action Plan, such as strengthening the role of the Danish Council on Climate Change with several new tasks and addressing citizens' initiatives in the Government's 2020 Climate Action Plan.

23. In its reporting on its PaMs, Denmark provided the estimated emission reduction impacts for all of its PaMs as a total figure, as well as providing impacts for broad groups of PaMs and for some individual PaMs in those groups. The Party referred to methodological challenges when explaining the lack of estimates of the impacts of each policy or measure separately.

24. The Party's methodology for estimating the impacts of its PaMs is described in annex B to the NC7. During the review, Denmark clarified that this is a top-down approach. The

Party also provided the ERT with several examples of and explanations for assumptions and methods used in assessing the impacts of certain measures.

25. Denmark's self-assessment of compliance with its emission reduction targets includes regular preparation of Energy and Climate Outlook reports, where the assessments are contained. The Party indicated that its national system for reporting on PaMs and GHG emissions and projections, which includes relevant institutional, legal and procedural arrangements, incorporates Denmark's self-assessment of compliance with its emission reduction targets, taking into account the level of emission reductions recommended by science. Denmark has established national rules for taking action against Danish entities included under the EU ETS in the case of their non-compliance.

26. 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_2 emissions from cars and vans, the carbon capture and storage directive, and the general programmes for environmental conservation, namely the 7th Environment Action Programme and the clean air policy package. The 2030 climate and energy framework, adopted in 2014, includes more ambitious targets that will be updated as part of the European Green Deal.

27. The achievement of the Energy Union objectives and targets is ensured through a combination of Energy Union initiatives and national policies set out in integrated NECPs. The NECPs are periodically updated to reflect changes to EU policy, such as the implementation of the European Green Deal. Denmark's NECP specifies that overall GHG emissions will be reduced by 70 per cent in 2030 compared with the 1990 level and that emissions from sectors covered under the ESR will be reduced by 39 per cent by 2030 compared with the 2005 level. Denmark will work towards net zero emissions by 2050. The renewable energy share objective is 55 per cent in 2030, to be achieved by phasing out coal in electricity generation, installing more wind farms, promoting geothermal energy and modernizing the heating sector. Strengthening energy efficiency policies and ceasing sales of new diesel and petrol cars as of 2030 will also play a part in the Party achieving its targets.

28. In operation since 2005, the EU ETS is a cap-and-trade system that covers all significant energy-intensive installations (mainly large point emissions sources such as power plants and industrial facilities), which produce 40–45 per cent of the GHG emissions of the EU. It is expected that the EU ETS will guarantee that the 2020 and 2030 targets (a 21 and 43 per cent emission reduction below the 2005 level, respectively) will be achieved for sectors under the scheme. The third phase of the EU ETS started in 2013 and the system now includes aircraft operations (since 2012) as well as N_2O emissions from chemical industry, PFC emissions from aluminium production and CO_2 emissions from some industrial processes that were not covered in the previous phases of the EU ETS (since 2013). Auctioning is the default method for allocating allowances; however, harmonized rules for free allocations, based on benchmark values achieved by the most efficient 10 per cent of installations, are still in place as a safeguard for the international competitiveness of industrial sectors at risk of carbon leakage.

29. The ESD became operational in 2013 and covers transport (excluding domestic and international aviation, and international maritime transport), residential and commercial buildings, agriculture and waste, together accounting for 55–60 per cent of the GHG emissions of the EU. The ESD includes binding annual targets for each member State for 2013–2020. The ESR sets national emission reduction targets for 2030 ranging from 0 to 40 per cent below the 2005 level, and trajectories with annual limits for 2021–2030, for all member States, and keeps many of the flexibilities of the ESD.

30. Denmark introduced national-level policies to achieve its targets under the ESD and domestic emission reduction targets. The key policies reported are introducing taxes on CO_2 from energy products, mineral oil and CH_4 produced in natural gas fired power plants, installing offshore wind turbines, establishing an agreement on the use of biomass for electricity production, transposing the EU regulation for passenger cars into national law and promoting biofuels. Among the PaMs for which an estimate of the effect of the individual measure is available, the mitigation effect of the taxation of mineral oil is the most significant,

followed by the use of biomass for electricity production. The other policies listed above also provide significant effects. For several measures, for example offshore wind power production, the emission reduction impact is included in the estimated effect for a group of measures, such as the package of renewable energy measures mentioned in paragraph 32 below.

31. Denmark highlighted the domestic mitigation actions that are under development, such as the Climate Act of 2019, which was adopted in June 2020. The proposed initiatives required to reach the reduction in emissions set out in the Climate Act include ceasing the sale of diesel and gas cars as of 2030, strengthening measures for improving the energy efficiency of buildings, developing a national strategy for sustainable construction, increasing renewables use in both electricity and heating, expanding offshore wind power production capacity in the North Sea, incentivizing green transition in the agriculture sector and supporting afforestation. These measures, which were to be debated by the Danish Parliament in 2020, are listed in the BR4 but not in CTF table 3. During the review, Denmark clarified that while the Climate Act can be considered as the national climate change framework, the initiatives under it were not regarded as adopted or even planned measures at the time the BR4 was prepared, since the BR4 was submitted in the period between the adoption of the policy framework and development of the individual actions it encompasses. Table 3 provides a summary of the reported information on the PaMs of Denmark.

Table 3
Summary of information on policies and measures reported by Denmark

Sector	*Key PaMs*	*Estimate of mitigation impact in 2020 (kt CO_2 eq)*	*Estimate of mitigation impact in 2030 (kt CO_2 eq)*
Policy framework and cross-sectoral measures	Energy agreement 2018	NE	NE
	Climate Act of 2019	NE	NE
	Tax on mineral oil	1 200	1 200
	CO_2 tax on energy products	410	410
Energy			
Energy efficiency	Tax on CH_4 from natural gas fired power plants	30	30
	Imposition of energy savings obligations of electricity, gas, oil and district heating companies	60	60
	Substitution of individual oil-based furnaces	20	20
Energy supply and renewables	Call for tenders for offshore wind turbines	NE	NE
	Agreement on the use of biomass in electricity production	1 100	1 100
Transport	EU regulations on CO_2 emission		0
	performance standards for new passenger cars and vans	600	600
	Promotion of biofuels	290	290
IPPU	Taxes and national regulation on fluorinated gases	800	800
Agriculture	Construction of biogas plants	240	200
	Food and agricultural package	122	122
LULUCF	Nature package	NE	NE
Waste	Ban on the landfilling of combustible waste	333	333
	Subsidy programme for implementing biocovers on landfills	300	179

Note: The estimates of mitigation impact are estimates of emissions of CO_2 eq avoided in a given year as a result of the implementation of mitigation actions.

32. The total estimate for all PaMs reported by Denmark is 50.67 Mt CO_2 in 2020 and 75.29 Mt CO_2 in 2030. The Party also provided estimates for groups of PaMs. For example, the impact of the package of renewable energy measures is estimated at 29.70 Mt CO_2 in 2020 and 58.33 Mt CO_2 in 2030, and the impact of the package of energy efficiency measures is estimated at 17.58 Mt CO_2 in 2020 and 13.23 Mt CO_2 in 2030. These estimates include avoided emission increases since 1990 compared with counterfactual scenarios.

33. Denmark reported on PaMs implemented by Greenland and the Faroe Islands. For road transport, Greenland promotes electric vehicles by exempting them from taxes and building charging infrastructure. For heating, Greenland plans to implement hydropower and new technologies, expand district heating and utilize residual heat from waste incineration plants.

34. The climate policy of the Faroe Islands contains a plan of action with measures for reducing emissions in heating, electricity production and land-based transport. Specifically, the targets are to (1) reduce oil consumption in heating by 50 per cent in 2020 compared with the 2005 level by adopting environmentally friendly technologies (e.g. heat pumps, more efficient burners and boilers, district heating systems and renewable energy sources) and performing regular inspections regarding energy efficiency; (2) increase the share of renewable energy generation in total electricity generation from the current 50 per cent to 75 per cent by 2020; and (3) ensure all gas- and diesel-fuelled vehicles are energy-efficient and that a significant number of vehicles run on renewable energy by 2020.

(b) Policies and measures in the energy sector

35. **Energy efficiency.** PaMs on energy efficiency include electricity, gas, oil and district heating companies carrying out campaigns and activities on energy saving aimed at consumers, with the cost of these activities being financed by a levy on their tariffs. Mandatory energy efficiency audits in large companies and taxes on fossil fuels also have an effect on energy efficiency and incentivize the shift towards renewables. Energy efficiency PaMs targeting individual sectors are discussed below.

36. **Energy supply and renewables.** Under its energy agreement (see para. 21 above), Denmark's objective is a 55 per cent share of renewables in the energy mix in 2030. The agreement includes plans to phase out coal in electricity production by 2030 and to develop renewable electricity capacity (mainly by developing offshore wind power). Measures that will help achieve the renewables target that have already been implemented are a tax on CH_4 from natural gas fired power plants, a call for tenders for offshore wind turbines, an agreement on the use of biomass in electricity production, a price supplement and subsidies for renewable energy production and support for energy research, development and demonstration.

37. **Residential and commercial sectors.** The main PaMs for these sectors are minimum energy requirements for new buildings, energy labelling of buildings when constructed, sold or rented, financial aid for owners who renovate their buildings for energy efficiency and incentivizing the substitution of individual oil-based furnaces with low-emitting solutions.

38. **Transport sector.** Several implemented PaMs aim at developing vehicle efficiency: the EU regulations on CO_2 emission performance standards for new passenger cars and vans, and the registration tax and the annual tax (the green owner tax), which are dependent on the energy efficiency of the vehicle. Promotion of biofuels, another implemented measure, also delivers emission reductions. Recently, the construction of an immersed road and rail tunnel under the Fehmarn Belt linking Denmark and Germany has been started. The electrification of parts of Denmark's rail infrastructure is also among the PaMs for this sector.

39. **Industrial sector.** The EU ETS is the major policy for this sector. In addition, energy-intensive companies wanting to benefit from a reduction in the CO_2 tax have signed voluntary agreements on energy efficiency.

(c) Policies and measures in other sectors

40. **Industrial processes.** One of the most important PaMs for this sector is the national regulation on emissions of the industrial GHGs (HFCs, PFCs and SF_6), effectively phasing

out most of their uses. The regulation comprises a consumer tax on the use of the substances and a statutory order to phase out the use of the gases in new facilities and products. Taxes corresponding to their GWP were imposed on each of these fluorinated gases in March 2001 (in conjunction with the CO_2 tax), constituting another important measure for the sector.

41. **Agriculture.** Denmark reported PaMs that have already reduced or will reduce the agriculture sector's GHG emissions: a ban on the burning of straw in fields; the Action Plan to Reduce Ammonia; the Action Plan for the Aquatic Environment (I and II); the Action Plan for Sustainable Agriculture; the construction of biogas plants; the Environmental Approval Act for Livestock Holdings; and, as a result of a political agreement, a food and agricultural package for ensuring better conditions for farming as well as for addressing key environmental challenges. The Party also reported on stronger research efforts in the agriculture sector. This research, initiated in 2019, covers climate accounts and farm-level data, climate-friendly feed production and green biorefining.

42. **LULUCF.** Forests in Denmark contain a considerable store of CO_2 absorbed from the atmosphere. Afforestation is therefore a useful climate policy instrument, and the Danish Government has implemented various afforestation schemes, for example a grant to incentivize afforestation on private agricultural land. In October 2018, the Ministry for Environment and Food launched a new National Forest Programme. The Programme sets out a long-term vision and two long-term goals related to the expansion of forest cover and biodiversity conservation, as well as 13 strategic directions and a number of concrete actions related to the multifunctional and sustainable development of the country's forests. As a result of a political agreement on a nature package, 10,200 acres of forest are designated as untouched forest and another 3,600 acres are designated as forest whose management is based primarily on biodiversity considerations in State-owned areas. In addition, a government grant scheme has been established with the aim of increasing areas of untouched forest in privately owned forest.

43. **Waste management.** Denmark has a history of making efforts in waste management, as reflected in the Action Plan for Waste and Recycling 1993–1997, the Waste 21 agenda (covering 1998–2004), the Waste Strategy 2005–2008 and the Waste Strategy 2009–2012. The current waste strategy, Denmark without Waste (I and II), reflects a change of focus in the country to considering waste as a resource. This new waste strategy comprises (1) a resource strategy and a resource plan for waste management, which focus on increasing recycling and (2) a waste prevention strategy.

(d) Response measures

44. Denmark's assessment of the economic and social consequences of its response measures includes consequences in terms of socioeconomic cost and, when effects on the environment are expected, consequences in terms of GHG emissions. In most cases these assessments accompany proposals for new response measures put before the Danish Parliament. Denmark also referenced information in its 2019 NIR indicating that no changes occurred since the information reported in its 2011 NIR, and confirmed that there are no new initiatives aimed at minimizing adverse impacts.

(e) Assessment of adherence to the reporting guidelines

45. The ERT assessed the information reported in the BR4 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 4.

Table 4
Findings on mitigation actions and their effects from the review of the fourth biennial report of Denmark

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
1	Reporting requirement specified in paragraph 8	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 via multiple references: the BR4 indicates that

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
	Issue type: transparency Assessment: encouragement	information on this matter can be found in chapter 15 of the 2019 NIR; the 2019 NIR references the 2011 NIR, indicating that no changes regarding the assessment have been made since then; and the 2011 NIR describes the initiatives of the EU for addressing the adverse impacts of response measures, including many examples that are now outdated or not relevant to reporting in the BR4. During the review, Denmark indicated it would provide a direct reference to the 2011 NIR in its next submission. The ERT encourages Denmark to include in its next BR clear, up-to-date information on its assessment of the economic and social consequences of its response measures, to the extent possible.

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, transparent and thus adhering to the UNFCCC reporting guidelines on BRs.

2. Estimates of emission reductions and removals and the use of units from market-based mechanisms and land use, land-use change and forestry

(a) Technical assessment of the reported information

46. Denmark does not intend to use certified emission reductions or emission reduction units 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 2016 or 2017. Given that the contribution of LULUCF activities is not included in the joint EU target under the Convention, the reporting of contributions of LULUCF activities is not applicable for Denmark. Table 5 illustrates Denmark's ESD emissions and use of units from market-based mechanisms for achieving its ESD target.

Table 5
Summary of information on the use of units from market-based mechanisms by Denmark for achieving its target

Year	ESD emissions (kt CO_2 eq)	AEA (kt CO_2 eq)	Use of units from market-based mechanisms (kt CO_2 eq)[a]	Annual AEA surplus/deficit (kt CO_2 eq)	Cumulative AEA surplus/deficit (kt CO_2 eq)
2013	33 705.94	36 829.16	NA	3 123.22	3 123.23
2014	32 643.51	35 925.17	NA	3 281.66	6 404.88
2015	32 520.22	35 021.18	NA	2 500.96	8 905.84
2016	33 124.68	34 117.19	NA	992.51	9 898.35
2017	32 676.91	34 775.65	NA	2 098.74	11 997.09
2018	33 142.44	33 871.44	NA	729.00	12 726.09

Sources: Information on ESD emissions provided by the Party during the review based on EU implementing decisions 2016/2132, 2017/1015, 2017/2377, 2018/1855, 2019/2005 and 2020/1834 and information on AEA based on the EU transaction log.

Notes: (1) Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark; (2) 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 annual or cumulative ESD emissions were higher than the AEA or cumulative AEAs.

[a] "NA" indicates that the Party stated in its BR4 that it does not intend to use market-based mechanisms for achieving its target.

47. In assessing the progress towards achieving the 2020 joint EU target, the ERT noted that Denmark's emission reduction target for the ESD is 20 per cent below the base-year level (see para. 15 above). In 2018 Denmark's ESD emissions were 2.15 per cent (729.00 kt CO_2 eq) below the AEA. Denmark has a cumulative surplus of 12,726.09 kt CO_2 eq with respect to its AEAs between 2013 and 2018.

48. The ERT noted that Denmark is making progress towards its ESD target by implementing mitigation actions that are delivering significant emission reductions.

49. Denmark included in the BR4 information on the progress of the Faroe Islands in reaching its target of reducing GHG emissions by at least 20 per cent in 2020 compared with the 2005 level, reporting that, in 2017, total GHG emissions in the Faroe Islands had increased by 9 per cent compared with the 2005 level. This means that the Faroe Islands will need to reduce its emissions by nearly 30 per cent before 2020 in order to fulfil its target.

(b) Assessment of adherence to the reporting guidelines

50. The ERT assessed the information reported in the BR4 of Denmark and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

3. Projections overview, methodology and results

(a) Technical assessment of the reported information

51. Denmark reported updated projections for 2020 and 2030 relative to actual inventory data for 1990, 1995, 2000, 2005, 2010, 2015 and 2017 under the WEM scenario. The WEM scenario reported by Denmark includes PaMs implemented and adopted until 2019.

52. Denmark did not report WOM and WAM scenarios, indicating instead that WAM projections have not been reported as the WEM projections show that no new measures will be needed for Denmark to achieve its 2020 target. The Party provided a definition of its WEM scenario, explaining that it includes implemented and adopted policies from Denmark's Energy and Climate Outlook 2019. The definition indicates that the scenario was prepared in accordance with the UNFCCC reporting guidelines on BRs.

53. 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 for CO_2 (including indirect CO_2), CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case) for 2020–2030. NF_3 was reported as "NO" for the entire time series. The projections are also provided in an aggregated format for each sector and for a Party total using GWP values from the AR4. Denmark reported on factors and activities affecting emissions for each sector.

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

54. 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 provided information on the changes since the submission of its NC7 in the assumptions, methodologies, models (including improvements to various models) and approaches used for the projection scenarios. The methodology behind the projections in Denmark's Energy and Climate Outlook 2019 is well defined and is based on an integrated model platform, which is updated regularly. Regarding changes to the assumptions, the Party reported on updates to expectations for overall economic growth, new market trends and updates to statistics, which may result in, for example, altered expectations regarding the composition of household energy consumption for heating. Denmark provided supporting information further explaining the methodologies and the changes made since the NC7 in annex 2 to the BR4 and through appropriate links to reference materials.

55. To prepare its projections, Denmark relied on key underlying assumptions relating to gross domestic product growth, population, population growth, international oil price, international coal price, international gas price and EU ETS carbon price. The assumptions were updated on the basis of the most recent economic developments known at the time of the preparation of the projections.

56. Sensitivity analyses were conducted for a number of important assumptions, such as electricity consumption by data centres, carbon price, renewables deployment, sales of electric vehicles, energy efficiency improvements in the industry and services sector, and number of dairy cows. The sensitivity analyses show that uncertainty regarding core assumptions can have a significant impact on key results in the projections. For example, the

analyses show that if no onshore wind and solar photovoltaic installations are deployed after 2024, the total share of renewables in 2030 could fall from 54 to 50.5 per cent.

(c) Results of projections

57. The projected emission levels under different scenarios and information on the quantified economy-wide emission reduction target are presented in table 6 and figure 1.

Table 6
Summary of greenhouse gas emission projections for Denmark

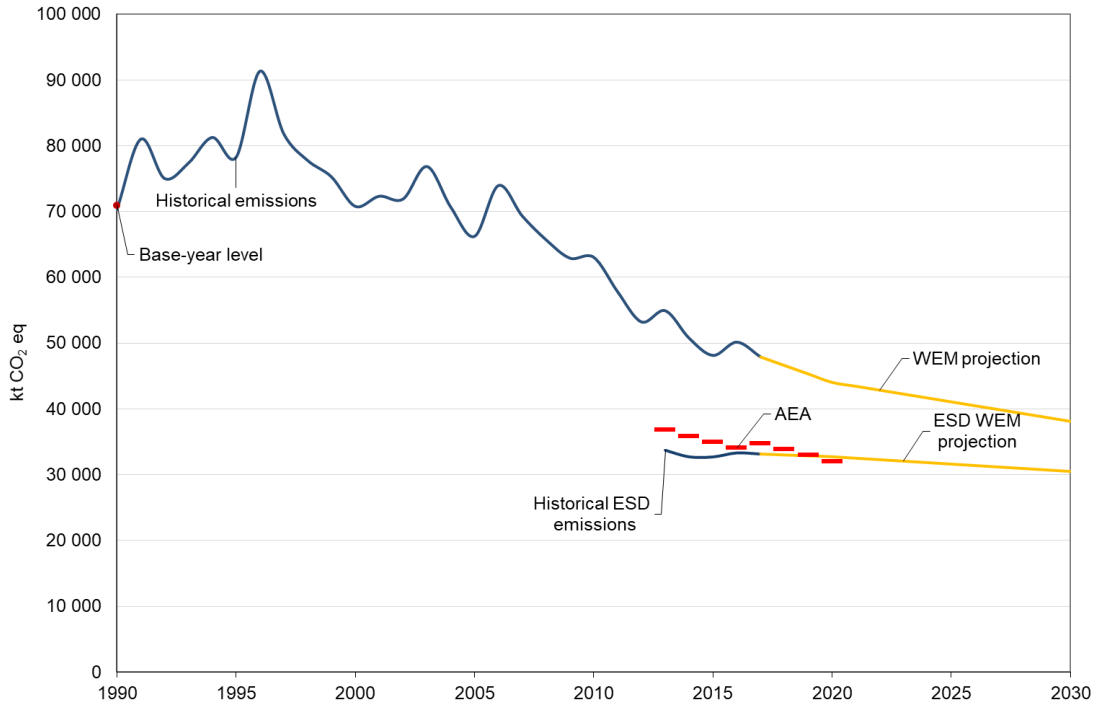
	Total GHG emissions		*Emissions under the ESD*	
	GHG emissions (kt CO_2 eq/year)	*Change in relation to 1990 level (%)*	*ESD emissions (kt CO_2 eq/year)*	*Difference from 2020 AEA (%)*
2020 AEA under the ESD[a]	NA	NA	32 063.05	NA
Inventory data 1990	70 290.77	–	NA	NA
Inventory data 2017	47 892.35	–31.9	32 676.91	1.91
WEM projections for 2020	44 030.22	–37.4	32 730.00	2.08
WEM projections for 2030	38 110.06	–45.1	30 500.00	NA

Sources: Denmark's BR4 and BR4 CTF table 6, and EU transaction log (AEAs). ESD 2017 emissions, based on EU implementing decision 2019/2005 and updated ESD/ESR projections consistent with the 2020 annual submission, were provided by Denmark during the review.

Notes: (1) Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark; (2) the projections are for GHG emissions excluding LULUCF and including indirect CO_2.

[a] The quantified economy-wide emission reduction target under the Convention is a joint target of the EU and its member States. The target is to reduce emissions by 20 per cent compared with the base-year (1990) level by 2020. Denmark's target under the ESD is 20 per cent below the 2005 level by 2020.

Figure 1
Greenhouse gas emission projections reported by Denmark



Sources: EU transaction log (AEAs) and Denmark's BR4 and BR4 CTF tables 1 and 6. Updated ESD emissions, based on the 2020 annual submission, were provided by Denmark during the review.

Note: Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark.

58. Denmark's total GHG emissions excluding LULUCF and including indirect CO_2 in 2020 and 2030 are projected under the WEM scenario to decrease by 37.4 and 45.1 per cent, respectively, below the 1990 level.

59. Denmark's target under the ESD is to reduce ESD emissions by 20 per cent below the 2005 level by 2020 (see para. 15 above). Denmark's AEAs, which correspond to its national emission target for ESD sectors, change linearly from 36,829.16 kt CO_2 eq in 2013 to 32,063.05 kt CO_2 eq for 2020. The projected level of emissions under the WEM scenario is 2 per cent above the AEAs for 2020. The ERT noted that the Party's cumulative surplus of AEAs for 2013–2018 is 12,726.09 kt CO_2 eq, which suggests that Denmark expects to meet its ESD target under the WEM scenario.

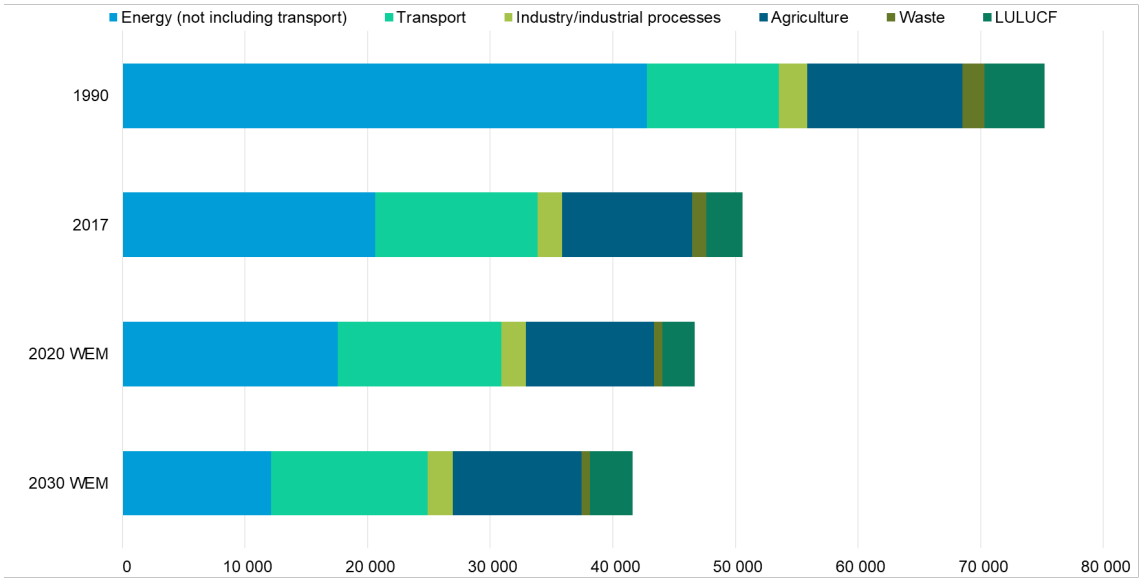
60. Denmark presented the WEM scenario by sector for 2020 and 2030, as summarized in figure 2 and table 7.

61. According to the projections reported for 2020 under the WEM scenario, the most significant absolute emission reductions are expected to occur in energy (without transport) and agriculture, amounting to projected reductions of 58.9 and 17.7 per cent between 1990 and 2020, respectively. The pattern of projected emissions reported for 2030 under the same scenario is similar: it is expected that the energy sector (without transport) will have the highest absolute reduction, followed by the agriculture and waste sectors.

62. For 2020, the most significant absolute reductions are projected for CO_2 and N_2O emissions: 41.3 and 33.5 per cent between 1990 and 2020, respectively. A similar trend is observed for 2030, with the most significant absolute reductions projected for CO_2 and N_2O emissions: 51.8 and 36.2 per cent between 1990 and 2030, respectively.

63. Denmark reported on projected emissions from Greenland and the Faroe Islands. Greenland is likely to experience significant industrial growth over the coming years, which will impact its emission levels. Possible sources of new emissions include further growth of the mining industry (including the establishment of new mines) and continued oil and gas exploration. A number of exploration projects are under way; however, the projected emissions related to these projects are subject to a significant degree of uncertainty and future scenarios have therefore not been included.

Figure 2
Greenhouse gas emission projections for Denmark presented by sector
(kt CO_2 eq)



Source: Denmark's BR4 CTF table 6.
Note: Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark.

Table 7
Summary of greenhouse gas emission projections for Denmark presented by sector

	GHG emissions and removals (kt CO_2 eq)			*Change (%)*	
Sector	*1990*	*2020 WEM*	*2030 WEM*	*1990–2020 WEM*	*1990–2030 WEM*
Energy (not including transport)	42 765.08	17 560.00	12 138.00	–58.9	–71.6
Transport	10 752.00	13 368.00	12 750.00	24.3	18.6
Industry/industrial processes	2 343.79	2 002.62	2 073.04	–14.6	–11.6
Agriculture	12 668.14	10 427.55	10 477.27	–17.7	–17.3
LULUCF	4 937.98	2 630.27	3 504.14	–46.7	–29.0
Waste	1 761.88	672.17	671.77	–61.8	–61.9
Other	–	–	–	–	–
Total GHG emissions excluding LULUCF and including indirect CO_2	**70 290.78**	**44 030.22**	**38 110.06**	**–37.4**	**–45.8**

Sources: Denmark's BR4 CTF table 6.
Note: Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark.

64. Denmark presented the WEM scenario by gas for 2020 and 2030, as summarized in table 8.

Table 8
Summary of greenhouse gas emission projections for Denmark presented by gas

	GHG emissions and removals (kt CO_2 eq)			*Change (%)*	
Gas	*1990*	*2020 WEM*	*2030 WEM*	*1990–2020 WEM*	*1990–2030 WEM*
CO_2[a]	54 686.95	32 098.38	26 351.86	–41.3	–51.8
CH_4	7 596.12	6 277.25	6 462.03	–17.4	–14.9
N_2O	7 965.30	5 300.67	5 084.79	–33.5	–36.2
HFCs	–	334.12	190.72	–	–
PFCs	–	0.00	0.00	–	–
SF_6	42.41	19.80	20.66	–53.3	–51.3
NF_3	–	–	–	–	–
Total GHG emissions without LULUCF	**70 290.78**	**44 030.22**	**38 110.06**	**–37.4**	**–45.8**

Source: Denmark's BR4 CTF table 6.
Note: Emissions are for Denmark only; Greenland and the Faroe Islands are not part of EU territory and therefore the EU target is not applicable to these parts of the territory of Denmark.
[a] Denmark included indirect CO_2 emissions in its projections.

65. The total GHG emissions of the Faroe Islands increased by 48 per cent from 1990 to 2017. The energy sector is the main emitter, accounting for 91 per cent of emissions. Denmark therefore reported projections for the WEM, WOM and WAM scenarios for the energy sector only. In order to develop the projections, impacts were assessed for some of the most effective measures implemented and planned, that is, hydropower and wind power plants, district heating and heat pumps. For 2020, the projected GHG emissions for the energy sector of the Faroe Islands under the WEM, WOM and WAM scenarios are 734, 960 and 734 kt CO_2, respectively, while for 2030 they are 693, 960 and 488 kt CO_2, respectively.

(d) Assessment of adherence to the reporting guidelines

66. The ERT assessed the information reported in the BR4 of Denmark and identified issues relating to completeness and thus adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 9.

Table 9
Findings on greenhouse gas emission projections reported in the fourth biennial report of Denmark

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
1	Reporting requirement specified in paragraph 28 Issue type: completeness Assessment: encouragement	The Party did not report projections for the WOM scenario in its BR4, although this scenario was reported in its BR3. During the review, Denmark explained that it does not see the added value in WOM projections. The ERT encourages Denmark to either report in its next BR the WOM scenario or provide an explanation in the BR as to why developing this scenario is not appropriate.
2	Reporting requirement specified in paragraph 35 Issue type: completeness Assessment: encouragement	The Party did not report projections of indirect GHGs such as carbon monoxide, nitrogen oxides and non-methane volatile organic compounds, or of sulfur oxides, in its BR4. During the review, Denmark provided the ERT with the latest projections of nitrogen oxides, non-methane volatile organic compounds, sulfur dioxide, particulate matter, ammonia and black carbon. The ERT reiterates the encouragement from the previous review report for Denmark to include in its next BR projections for indirect GHGs or provide an explanation in the BR as to why it is not possible to report these projections.
3	Reporting requirement specified in paragraph 43 Issue type: completeness Assessment: encouragement	The Party did not report information on the strengths and weaknesses of the models used for developing projections, or information on how these models account for any overlap or synergies that exist between different PaMs, in its BR4. During the review, Denmark clarified that, concerning strengths, its integrated modelling platform developed for producing the projections comprises highly advanced sector models which are being continuously improved and further developed. The Party collaborates closely with selected university partners on methods, tools and assumptions, and application of advanced market optimization models and algorithms. The weaknesses of the overall integrated platform are that it partly relies on static input parameters on economic growth and international prices; demand models (for the household, industry and transport sectors) are quite aggregated; and currently there is no direct dynamic link between modelling of industrial energy demand and industrial non-energy process emissions. The Party clarified that the economic projections driving demand projections are linked to an econometric energy consumption model that is based on the estimation of behavioural patterns in the consumption of energy. The energy consumption modelling is characterized by the rigidity of technological change, and as such, is not well equipped to generate forecasts in the very long term. During the review, Denmark also provided further references and diagrams illustrating the integrated platform and the models of which it is composed. The ERT reiterates the encouragement from the previous review report for Denmark to include in its next BR a comprehensive description of the strengths and weaknesses of the models and approaches used for preparing its projections for each sector, as well as how these models account for any overlap or synergies that exist between different PaMs.

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, transparent and thus adhering to the UNFCCC reporting guidelines on NCs and on BRs.

D. 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

67. In its BR4 Denmark reported information on its provision of financial, technological and capacity-building support to non-Annex I Parties.

68. Denmark has provided support that it considers to be “new and additional”. Its definition of “new and additional” is “newly committed (for reporting on commitments) or disbursed (for reporting of disbursements) finance for climate change adaptation or

mitigation activities within the reporting period and not reported to the UNFCCC in the previous report" (see p.38 of the BR4). This definition is the same as that in the BR3.

69. Denmark reported the support that it has provided to non-Annex I Parties, distinguishing between support for mitigation and adaptation activities and recognizing the capacity-building elements of such support. It explained how it tracks finance for adaptation and mitigation. To track bilateral public climate finance, the Party uses the OECD DAC Creditor Reporting System with its Rio markers for reporting activities relevant to climate change. The Rio markers on adaptation and mitigation indicate policy objectives related to each project or programme that is reported in the Creditor Reporting System. The markers are assigned on the basis of well-defined guidelines and technical eligibility criteria within OECD DAC.

70. All Danish support provided to developing counties is screened using the Rio markers to establish whether the project or programme targets adaptation and/or mitigation as a "principal objective" or a "significant objective", or whether these objectives are "not targeted". The values of a project are attributed according to the extent to which the themes are explicitly addressed at the level of problem analysis (context); objectives and results; and activities, as defined in the eligibility criteria of the Rio markers. The climate-relevant contribution of a specific project or programme is quantified on the basis of the Rio markers. In the BR4, Denmark provided a matrix indicating how climate change mitigation and adaptation Rio markers determine the type of support (mitigation, adaptation or cross-cutting) and the associated per cent of finance.

71. Denmark's national approach to tracking the provision of technological and capacity-building support was described in the BR4. The Party reported that all new climate change related commitments in 2017 and 2018 were manually screened for technology transfer and capacity-building relevance in parallel with the review of Rio marker allocation (see para. 70 above).

72. Denmark's methodology and underlying assumptions used for collecting and reporting information on financial support includes external quality assurance of the allocation of all Rio markers covered in the project portfolio of the Ministry of Foreign Affairs. This evaluation is done before submitting information to the OECD DAC Creditor Reporting System and including them in the database Denmark uses for reporting as part of the UNFCCC process. The Ministry of Foreign Affairs has made an effort to improve its internal processes and better understand reporting under the Convention, including by addressing the comments and recommendations of the ERTs who reviewed the BR3 and the NC7.

73. In the BR4, the Party noted two major improvements regarding financial support: (1) an analysis of the support provided to climate-relevant development research and of the granting mechanism for small and medium-sized Danish non-governmental organizations, performed through the Civil Society in Development (an independent association with more than 270 Danish civil society organization members); the analysis, enables a more accurate assessment of the proportion of large pooled grants that are climate relevant; and (2) the sections related to the provision of technology development and transfer and capacity-building have been considerably expanded relative to the BR3.

(b) Financial resources

74. Denmark reported information on its provision of financial support to non-Annex I Parties as required under the Convention, including on financial support provided, committed and disbursed, allocation channels and annual contributions. The Party clarified that climate finance is considered as committed to a specific project, programme or institution when it has been approved by the relevant Danish authority and an agreement or similar document has been signed with the recipient country or organization. The committed funds are considered as disbursed when their transfer to the account of the recipient country or organization has taken place. In some cases, commitment and disbursement takes place in the same year; in others, disbursement takes place over a number of years following commitment.

75. Denmark allocates its resources to address the adaptation and mitigation needs of non-Annex I Parties by engaging in a dialogue with partner countries and the programme and management staff of the relevant implementing agency. Denmark cooperates with national and local government authorities, international agencies, civil society organizations, private companies, research institutions and other relevant actors, and specific projects and programmes are identified and developed in close collaboration with these national partners.

76. The Party described how its resources assist non-Annex I Parties in mitigating GHG emissions and adapting to the adverse effects of climate change and any economic and social consequences of response measures, and contribute to technology development and transfer and capacity-building related to mitigation and adaptation. Denmark sees the achievement of climate change and broader SDGs as closely linked and strongly interdependent and thus seeks to identify and support activities in developing countries that address multiple objectives, as identified together with these countries. Denmark's World 2030 strategy for development cooperation and humanitarian action guides the provision of public support to developing countries for climate action. The strategy targets five SDGs: 5 (gender equality), 7 (affordable and clean energy), 13 (climate action), 16 (peace, justice and strong institutions) and 17 (partnerships for the goals).

77. With regard to the most recent financial contributions aimed at enhancing the implementation of the Convention by developing countries, Denmark allocated its climate finance on the basis of its aim to support both adaptation and mitigation actions with a view to contributing to sustainable development. Support is provided for adaptation activities and programmes that aim to address the underlying causes of vulnerability and contribute to building resilience to crises, natural disasters and the impacts of climate change. Support is also provided to assist developing countries in their efforts to integrate adaptation and emission reduction into their national planning and policymaking, including into their national adaptation plan and nationally determined contribution, as well as to implement those plans and policies. Supported activities include those aimed at improving access to sustainable energy, improving energy efficiency and improving access to climate-friendly technologies. There have been no changes to the Party's support priorities since the BR3. Table 10 summarizes the information reported by Denmark on its provision of financial support.

Table 10
Summary of information on provision of financial support by Denmark in 2017–2018
(Millions of United States dollars)

	Year of disbursement	
Allocation channel of public financial support	*2017*	*2018*
Official development assistance	2 142.64	2 369.91
Climate-specific contributions through multilateral channels, including:	58.91	61.41
Least Developed Countries Fund	9.09	8.20
Green Climate Fund	22.72	–
Trust Fund for Supplementary Activities	0.19	0.10
Other multinational climate change funds	0.23	6.36
Financial institutions, including regional development banks	18.49	35.06
United Nations bodies	8.20	11.70
Climate-specific contributions through bilateral, regional and other channels	145.87	172.03

Sources: BR4 CTF tables and Query Wizard for International Development Statistics, available at http://stats.oecd.org/qwids/.

78. Denmark's climate-specific public financial support[7] was USD 438.23 million in 2017–2018. It has increased its contributions by 13.0 per cent since the BR3 (2015–2016), as reported in its local currency.

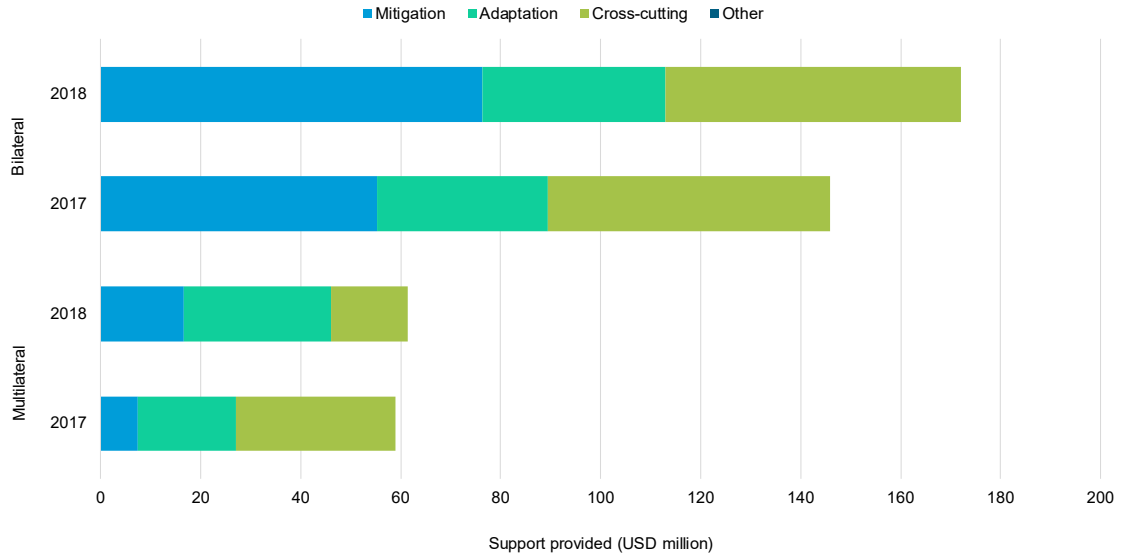
[7] For the remainder of this chapter, the term "financial support" means climate-specific financial support, unless otherwise noted.

79. Denmark's Climate Envelope is a mechanism for channelling financial support for mitigation and adaptation activities to developing countries. It is programmed jointly by the Ministry of Foreign Affairs and the Ministry of Climate, Energy and Utilities. The Climate Envelope had a budget of DKK 300 million in 2017 and DKK 346 million in 2018. In the BR3, Denmark indicated that in 2013–2016 annual financial commitments channelled through the Climate Envelope were, on average, DKK 400 million.

80. During the reporting period, Denmark placed a particular focus on South Asia, South-East Asia and Africa. In the BR4, the Party provided a list of the 10 recipient countries that received most of its climate finance disbursements between 2017 and 2018: Afghanistan, Bangladesh, Bolivia (Plurinational State of), Burkina Faso, Egypt, Ethiopia, Georgia, Indonesia, Kenya and Uganda. Seven of these countries were also reported as receiving the most support between 2015 and 2016. The ERT noted that while Denmark reported in CTF table 7(b) its bilateral, regional and other channel support allocated to non-Annex I Parties in 2017 and 2018, grants for mitigation actions were also allocated to North and Central America, Turkey and Ukraine.

81. 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 11. 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, timing of approval of individual bilateral projects or changes in exchange rates.

Figure 3
Provision of financial support by Denmark in 2017–2018



Source: Denmark's BR4 CTF tables 7, 7(a) and 7(b).

Table 11
Summary of information on channels of financial support used in 2017–2018 by Denmark
(Millions of United States dollars)

	Year of disbursement				*Share (%)*	
Allocation channel of public financial support	*2017*	*2018*	*Difference*	*Change (%)*	*2017*	*2018*
Detailed information by type of channel						
Multilateral channels						
Mitigation	7.47	16.54	9.07	121.3	12.7	26.9
Adaptation	19.58	29.54	9.96	50.9	33.2	48.1
Cross-cutting	31.85	15.33	–16.52	–51.9	54.1	25.0
Other	–	–	–	–	–	–

Allocation channel of public financial support	Year of disbursement		Difference	Change (%)	Share (%)	
	2017	2018			2017	2018
Total multilateral	**58.91**	**61.41**	**2.51**	**4.3**	**100.0**	**100.0**
Bilateral channels						
Mitigation	55.29	76.38	21.09	38.1	37.9	44.4
Adaptation	34.11	36.62	2.51	7.4	23.4	21.3
Cross-cutting	56.47	59.04	2.57	4.6	38.7	34.3
Other	–	–	–	–	–	–
Total bilateral	**145.87**	**172.03**	**26.17**	**17.9**	**100.0**	**100.0**
Total multilateral and bilateral	**204.78**	**233.45**	**28.67**	**14.0**	**100.0**	**100.0**

Source: Denmark's BR4 CTF tables 7, 7(a) and 7(b).

82. Denmark contributed through multilateral channels USD 58.91 million and 61.41 million for 2017 and 2018, respectively. The contributions were made to specialized multilateral climate change funds, such as the Least Developed Countries Fund, the Green Climate Fund and the Trust Fund for Supplementary Activities.

83. The Party reported detailed information on the total financial support provided though bilateral, regional and other channels (USD 145.87 million and USD 172.03 million) in 2017 and 2018, respectively. The ERT noted that in 2017–2018, 72.5 per cent of the financial support provided to developing countries was channelled through bilateral, regional and other channels and the remainder through multilateral channels.

84. The BR4 provides information on the types of support provided. In terms of the focus of public financial support, as reported in CTF table 7 for 2017, the shares of the total public financial support allocated for mitigation, adaptation and cross-cutting projects were 30.7, 26.2 and 43.1 per cent, respectively. In 2018, the shares of total public financial support allocated for mitigation, adaptation and cross-cutting projects were 39.8, 28.3 and 31.9 per cent, respectively. During the review, Denmark explained that allocations for adaptation, mitigation and cross-cutting projects may vary from year to year owing to the specific projects supported and indicated that, in the long term, the Party aims to balance its support for adaptation and mitigation.

85. The ERT noted that in 2017 the majority of financial contributions through multilateral channels were allocated to the areas or sectors 'other' (environmental policy and administrative management) (30.6 per cent); energy, multisector aid, and civilian peacebuilding and conflict prevention and resolution (11.0 per cent each); and agricultural development, and drinking water and sanitation (8.0 per cent each), as reported in CTF table 7(a). Other areas, including food security, business support, industrial development and relief of multilateral debt, accounted for the remaining contributions. In 2018, 25.6 per cent of the funding was directed towards the areas or sectors 'other' (environmental policy and administrative management), energy (16.3 per cent), agricultural development and multisector aid (9.3 per cent each) and civilian peacebuilding and conflict prevention and resolution (7.0 per cent), as reported in CTF table 7(b). The remainder was distributed among biosphere protection, relief of multilateral debt, research and scientific institutions, environmental research, disaster prevention and rural development.

86. The ERT noted that in 2017 the majority of financial contributions through multilateral channels were allocated to the areas of environmental policy and administrative management, and basic drinking water supply and basic sanitation with food security and food aid components, as reported in CTF table 7(a). The corresponding allocations for 2018 were directed mostly to the same sectors, as well as to energy policy and administrative management. In 2017 the majority of financial contributions through bilateral and regional channels were allocated to environmental policy and administrative management, wind energy and agricultural development, as reported in CTF table 7(b). The corresponding allocations for 2018 were directed mostly to the same sectors.

87. CTF tables 7(a) and 7(b) include information on the types of financial instrument used for providing assistance to developing countries, which include grants and capital subscriptions. The ERT noted that the grants provided in 2017 and 2018 accounted for the total bilateral support. During the review, Denmark confirmed that most of its bilateral support for climate action was provided to developing countries through grants, and that it included only the official development assistance component of its support in the CTF tables.

88. Denmark reported that private finance is mainly mobilized for mitigation in renewable energy, agrobusiness and others. The Party reported that it had made a significant effort to establish new and innovative instruments to mobilize private finance to climate projects in developing countries, such as the Danish SDG Investment Fund (see para. 89 below). It described how it uses public funds to promote private sector financial support for developing countries to increase mitigation and adaptation efforts through its bilateral vehicle, the Investment Fund for Developing Countries and the various funds it manages, which then mobilize private investments by offering venture capital and advice to climate investors. Denmark reported on private financial flows leveraged by bilateral climate finance for mitigation and adaptation activities in non-Annex I Parties, including DKK 317.7 million mobilized from the private sector in 2017 and DKK 799.9 million in 2018.

89. The Party reported on other funds that support private sector investment, such as the Danish Climate Investment Fund and the Danish SDG Investment Fund, which are public–private partnerships managed by the Investment Fund for Developing Countries. The Danish Climate Investment Fund's investment period ended in early 2018. Up to 2016 it raised EUR 174 million of public and private funds, which were used to mobilize further private investments at the project level. It is estimated that the Fund will, in total, generate total investments of EUR 1–1.2 billion. The Danish SDG Investment Fund, on the other hand, is an innovative addition to how Denmark will contribute to increasing private investments in developing countries towards the achievement of the SDGs. The Fund is envisaged to promote investments of at least DKK 30 billion, and will form the primary vehicle for the equity investment activities of the Investment Fund for Developing Countries.

(c) Technology development and transfer

90. Denmark provided information on the steps, measures and activities related to technology transfer, access and deployment benefiting developing countries, including on activities undertaken by the public and private sectors. Denmark provided examples of support provided for the deployment and enhancement of the endogenous capacities and technologies of non-Annex I Parties. One example of such support provided is the Bangladesh Country Programme 2016–2021, which seeks to enhance and develop endogenous technologies and capacities associated with water, sanitation and hygiene infrastructure through the installation and rehabilitation of 2,500 climate-adaptive water points. The Programme will be implemented by local government institutions.

91. Another example is the Northern Uganda Resilience Initiative, which aims to increase the endogenous capacity of national implementing partners, the Ministry of Water and Environment's Directorate of Water Resources Management and the Upper Nile Water Management Zone, including through developing community-driven micro catchment management plans and implementing mechanisms to increase the efficiency of the use of water resources.

92. The ERT took note of the information provided on recipient countries, target areas, measures and focus sectors of technology transfer programmes (some of these programmes include capacity-building components). Denmark reported examples of support provided to multilateral institutions for projects with technology transfer components (e.g. the United Nations Environment Programme-DHI Centre for Water and Environment Integrated Water Resources Management initiative), projects with capacity-building components (e.g. the World Bank's Energy Sector Management Assistance Program) and projects with both technology transfer and capacity-building components (e.g. the Danish Climate Investment Fund's Technical Assistance Facility for Clean Energy Investment Mobilization). Examples were also reported of bilateral support provided for projects with capacity-building components (e.g. the Climate Resilient Forest Livelihoods programme, the C40 Cities Climate Action Planning Framework) and projects with both technology transfer and

capacity-building components (e.g. the Bangladesh Country Programme 2016–2021, the Uganda Programme for Sustainable and Inclusive Development of the Economy).

93. Of the 18 projects listed in CTF table 8, 4 projects were labelled "mitigation", 9 "adaptation" and 5 "mitigation and adaptation". Support was provided mainly for the energy sector, but some projects fell into the 'other' category (e.g. rural and urban development, water sector policy and administrative management). There were four supported projects in Bangladesh, two in Ethiopia and one in Uganda, as well as one project covering Georgia and Ukraine and one project covering China, Mexico, South Africa and Viet Nam. The remaining nine projects were labelled "global" and for most, information was not provided on their geographical priorities. In the BR3, only four projects were listed in total.

94. Denmark reported on its measures and activities implemented since its NC7 and BR3 but did not provide in its BR4 success and failure stories in relation to technology transfer. However, it reported on several ongoing programmes. For example, the Strategic Sector Cooperation initiative promotes Danish societal solutions that have been developed through public–private partnerships by means of soft technology transfer and capacity-building in areas such as the green economy, urbanization, agriculture and climate change mitigation and adaptation.

(d) Capacity-building

95. Denmark has provided capacity-building support for mitigation, adaptation and technology that responds to the existing and emerging needs identified by non-Annex I Parties. It described measures and activities related to capacity-building support in textual and tabular format. The Party reported that the capacity-building support it provides includes a broad spectrum of activities; involves public, private and civil society partners; and aims to ensure that the endogenous priorities and needs of developing countries are addressed through effective development cooperation and, where possible, prior engagement review and evaluation.

96. Detailed information on capacity-building support provided by Denmark was reported in CTF table 9, including recipient countries, target areas, programme and project titles, and descriptions of programmes and projects. Examples were reported of the support provided to multilateral institutions for projects with capacity-building components (e.g. the Energy Sector Management Assistance Program). Examples were also reported of bilateral support provided for projects with both capacity-building and technology transfer components (e.g. the Bangladesh Country Programme 2016–2021, the Strategic Sector Cooperation initiative, the Uganda Programme for Sustainable and Inclusive Development of the Economy). CTF table 9 includes 24 lines of support, whereas in the BR3, a total of 9 projects were listed.

97. Denmark has supported climate-related capacity development activities relating to adaptation, mitigation and climate financing. Since the BR3, the focus of support has shifted from adaptation to mitigation and joint mitigation and adaptation projects. Denmark's support has responded to the existing and emerging capacity-building needs of non-Annex I Parties by several means, including direct consultation with the beneficiary country.

98. The BR4 includes several examples of projects that indicate how the Party practises an integrated approach to capacity-building and technology transfer as part of its overall climate support approach under both bilateral and multilateral assistance. One such example is the Party's support to the International Energy Agency's mitigation programme Energy Efficiency in Emerging Economies, whose objective is to support the energy transition of a group of six of the largest developing countries in a low-carbon, sustainable direction, aiming to achieve efficient, high-impact, cost-effective improvements in energy efficiency at the national and sectoral level.

99. The aims of the programme include increasing knowledge and awareness in recipient countries on best practice policies for supporting energy-efficient technologies and systems, increasing the number of technical government staff trained on energy modelling and increasing knowledge and use of new digital technologies and approaches for data collection and analysis on energy efficiency. In another example, the Denmark–Myanmar Country Programme 2016–2020, the support is aimed at enhancing the capacity of the Forest Department of Myanmar to establish and enforce protected forest areas for mangroves, thus

increasing the resilience of coastal communities to climate change. Means to achieve the goal include increasing access to technical support and to alternative sustainable livelihood opportunities.

2. Assessment of adherence to the reporting guidelines

100. The ERT assessed the information reported in the BR4 of Denmark and identified issues relating to completeness and transparency and thus adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 12.

Table 12
Findings on provision of support to developing country Parties from the review of the fourth biennial report of Denmark

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
1	Reporting requirement specified in paragraph 14 Issue type: transparency Assessment: recommendation	The previous review report reiterated the recommendation that Denmark include in its next BR information on the national approach for tracking capacity-building and technology transfer elements in its support. The Party reported in its BR4 that "for the present reporting cycle, all new Danish climate-relevant commitments in the years 2017 and 2018 have been manually screened for technology transfer and capacity building relevance", which was done in conjunction with the existing processes of review regarding Rio marker allocation. The ERT acknowledges the improvement in the completeness of the reporting, but considers it unclear how this manual screening is performed and which indicators are used for identifying technology transfer and capacity-building support. During the review, Denmark clarified that the tracking of capacity-building and technology transfer support and the indicators used for identifying capacity-building and technology transfer elements in support are the same as the tracking and indicators used for financial support. The ERT recommends that Denmark increase the transparency of the description of its national approach for tracking the provision of technological and capacity-building support by clarifying what is meant by manual screening and how this is performed. In this respect, Denmark could provide, for example, the available information on the criteria and methods used to support the manual screening.
2	Reporting requirement specified in paragraph 17 Issue type: transparency Assessment: recommendation	The Party reported in CTF tables 7(b)_2017 and 7(b)_2018 grants for mitigation actions allocated to Annex I Parties (North and Central America, Turkey, Ukraine) and included these grants in the total support provided. During the review, Denmark explained that it included support provided to developing countries in its BR4. The Party clarified that the support provided to North and Central America was for developing countries in Central America and was channelled through a regional organization. Since Turkey and Ukraine are developing countries the support provided to them was also included. The ERT recommends that Denmark include in the totals of CTF table 7(b) of its next BR submission the financial support provided to non-Annex I Parties only, noting that the Party can describe in the BR4 the support it provided to other Parties without, however, including this support in the tables where the total support provided to non-Annex I Parties is recorded.
3	Reporting requirement specified in paragraph 21 Issue type: transparency Assessment: encouragement	The Party did not provide success and failure stories in relation to technology transfer in the BR4. During the review, Denmark clarified that success and failure stories in relation to technology transfer may be provided after a study, a review or an evaluation of a project is carried out. Some external evaluations of Danish climate support are under way and may provide success and failure stories on technology transfer that could be included in future BRs. The ERT reiterates the encouragement from the previous review report for Denmark to either include in its next BR success and failure stories in relation to technology transfer or provide an explanation in the BR as to why these cannot be provided, mentioning the ongoing independent evaluations that might allow the Party to include success and failure stories in future BRs.

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, transparent and thus adhering to the UNFCCC reporting guidelines on BRs.

III. Conclusions and recommendations

101. The ERT conducted a technical review of the information reported in the BR4 and BR4 CTF tables of Denmark in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the reported information mostly adheres to the UNFCCC reporting guidelines on BRs and provides 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.

102. Denmark's total GHG emissions excluding LULUCF and including indirect CO_2 covered by its quantified economy-wide emission reduction target were estimated to be 30.7 per cent below its 1990 level, whereas total GHG emissions including LULUCF and including indirect CO_2 were 28.0 per cent below its 1990 level, in 2018. 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, an increase in wind and solar power generation, a decrease in gross energy consumption, a ban on the landfilling of combustible waste, a reduction in the number of cattle and the introduction of legislation aimed at improving the utilization of nitrogen in manure.

103. Under the Convention Denmark (without Greenland and the Faroe Islands) 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_2, CH_4, N_2O, HFCs, PFCs and SF_6, expressed using GWP values from the AR4. Emissions and removals from the LULUCF sector are not included.

104. Under the ESD Denmark has a target of reducing its emissions by 20 per below the 2005 level by 2020. The 2013–2020 progression in Denmark's AEAs (its national emission target under the ESD) is 36,829.16 to 32,063.05 kt CO_2 eq.

105. In addition to its ESD target, Denmark committed to achieving a domestic target of a 70 per cent reduction in emissions below the 1990 level by 2030. The EU's joint targets under the EU ETS and ESR are to reduce emissions by 2030 by 43 and 30 per cent, respectively, compared with the 2005 level. Denmark's ESR target is a reduction in ESD emissions of at least 39 per cent by 2030 compared with the 2005 level. Denmark also reported that its long-term target is net zero emissions by no later than 2050.

106. In 2018 Denmark's ESD emissions were 2.15 per cent (729.00 kt CO_2 eq) below the AEA. For 2013–2020, Denmark has a cumulative surplus of 12,726.09 kt CO_2 eq with respect to its AEAs.

107. The GHG emission projections provided by Denmark in its BR4 correspond to the WEM scenario. Under this scenario, emissions are projected to be 36.3 per cent below the 1990 level by 2020. According to the projections under the WEM scenario, ESD emissions are estimated to reach 32,730 kt CO_2 eq by 2020, which is 2.1 per cent above the AEAs for 2020. The ERT noted that the Party's cumulative surplus of AEAs is 12,726.09 kt CO_2 eq, which suggests that Denmark expects to meet its target under the WEM scenario.

108. Denmark's main policy framework relating to energy and climate change is its 2018 energy agreement and its Climate Act of 2019. The Party described the mitigation actions that it has implemented to help it achieve its 2020 targets. The Party has a significant portfolio of fiscal measures (e.g. taxes on fossil fuels, a price supplement and subsidies for renewable energy production, tax on CH_4 from natural gas fired power plants, tax on fluorinated gases, registration tax and the annual tax for vehicles based on their energy efficiency), that bring considerable emission reductions and promote the use of renewable energy and improvement in energy efficiency in all sectors.

109. Denmark continues to provide climate financing to developing countries in line with its climate finance programmes such as the Climate Envelope. It has increased its contributions by 17.92 per cent since the BR3; its public financial support in 2017 and 2018 totalled USD 204.78 million and 233.45 million, respectively. For those years, Denmark provided more support for mitigation than for adaptation (with cross-cutting climate finance divided evenly between mitigation and adaptation). The biggest share of financial support

went to projects and programmes in environmental policy and administrative management, followed by projects and programmes in energy, water and sanitation, and agriculture. An example of this support is the mitigation programme Energy Efficiency in Emerging Economies, whose objective is to support the energy transition of a group of six of the largest developing countries in a low-carbon, sustainable direction, aiming to achieve efficient, high-impact, cost-effective improvements in energy efficiency at the national and sectoral level.

110. Denmark continues to provide support for technology development and transfer and capacity-building. Priority for technological support was given to mitigation, and cross-cutting projects or programmes, primarily in African countries. Since the BR3, the number of projects and programmes with both technology and capacity-building components has significantly increased. The focus on energy has been maintained, and to a lesser extent, there is also now a focus on water and sanitation and on agriculture. A key programme is the Strategic Sector Cooperation initiative, which focuses on concrete development challenges and responds to current needs of the partner country. One of the projects under this programme, the Strategic Sector Cooperation on Sustainable Urban Water Management in Udaipur, India, seeks to improve the management of water resources through introducing integrated planning approaches and demonstrating new technologies.

111. Priority for capacity-building support was given to cross-cutting projects and programmes, with many projects focusing on energy and water, primarily in African countries. Since the BR3, the focus on energy, agriculture and forestry has remained the same. A good example of the Party's support for capacity-building is the Denmark–Myanmar Country Programme 2016–2020, which seeks to enhance the capacity of the Forest Department of Myanmar to establish and enforce protected forest areas for mangroves, thus increasing the resilience of coastal communities to climate change.

112. In the course of the review, the ERT formulated the following recommendations for Denmark to improve its adherence to the UNFCCC reporting guidelines on BRs in its next BR, namely to improve the transparency of its reporting by:

(a) Specifying the national approach to tracking the provision of technological and capacity-building support by clarifying what is meant by manual screening and how this is performed (see issue 1 in table 12);

(b) When reporting the total financial support provided, differentiating between the support provided to Annex I and non-Annex I Parties and including in the totals in CTF table 7(b) the financial support provided to non-Annex I Parties only (see issue 2 in table 12).

Annex

Documents and information used during the review

A. Reference documents

2019 GHG inventory submission of Denmark. Available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2019.

2020 GHG inventory submission of Denmark. Available at https://unfccc.int/ghg-inventories-annex-i-parties/2020.

BR3 of Denmark. Available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/biennial-report-submissions/third-biennial-reports-annex-i.

BR4 of Denmark. Available at https://unfccc.int/BRs.

BR4 of the EU. Available at https://unfccc.int/BRs.

BR4 CTF tables of Denmark. Available at https://unfccc.int/BRs.

"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. Available at 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 I: UNFCCC reporting guidelines on annual greenhouse gas inventories". Annex to decision 24/CP.19. Available at http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf.

"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/1999/7. Available at http://unfccc.int/resource/docs/cop5/07.pdf.

"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.

NECP of Denmark. Available at https://ec.europa.eu/energy/sites/ener/files/documents/dk_final_necp_main_en.pdf.

Report on the individual review of the annual submission of Denmark submitted in 2018. FCCC/ARR/2018/DNK. Available at https://unfccc.int/documents/192753.

Report on the technical review of the BR3 of Denmark. FCCC/TRR.3/DNK. Available at https://unfccc.int/documents/192815.

"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 (Danish Ministry of Climate, Energy and Utilities), including additional material. The following documents[1] were provided by Denmark:

2020, Unofficial English translation of the *Denmark's Climate Act*. (Act. No 965).

Aarhus University. 2019. *Projection of Greenhouse Gases 2018-2040*. No. 345. Available at https://dce2.au.dk/pub/SR345.pdf.

2020. *Anlægsarbejdet på tunnelen under Femern Bælt sættes i gang* (Information on "tunnel replacing ferry boats"). Available at https://www.trm.dk/nyheder/2020/anlaegsarbejdet-paa-tunnelen-under-femern-baelt-saettes-i-gang/ (in Danish).

2018. RamsesR. available at https://ens.dk/sites/ens.dk/files/Analyser/ramsesr.pdf (in Danish).

Danish Energy Agency. 2019. *Denmark's Energy and Climate Outlook (DECO19)*. Available at https://ens.dk/basisfremskrivning (in Danish).

Documentation of IntERACT. Available at https://ens.dk/en/our-services/projections-and-models/models/documentation-interact.

Danish Energy Agency. *Model og metode til fremskrivning af energiforbruget i transportsektoren FREM* available at https://ens.dk/sites/ens.dk/files/Basisfremskrivning/2020.06.25._model_og_metode_til_fremskrivning_af_energiforbruget_i_transportsektoren.pdf (in Danish).

Danish Energy Agency. *DH-Invest - model til fjernvarmeanalyser*. Available at https://ens.dk/sites/ens.dk/files/Analyser/dh-invest_modelbeskrivelse.pdf (in Danish).

Danish Energy Agency. 2019. *Analysis of the Potential for Corporate Power Purchasing Agreements for Renewable Energy Production in Denmark background document for DECO19*. Available at https://ens.dk/sites/ens.dk/files/Analyser/corporate_ppa_report_june_2019.pdf.

[1] References reproduced as received from the Party.