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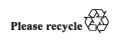
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# Report of the technical review of the first biennial report of Denmark

Developed country Parties are requested, in accordance with decision 2/CP.17, to submit their first biennial report to the secretariat by 1 January 2014. This report presents the results of the technical review of the first 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".

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## FCCC/TRR.1/DNK

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# I. Introduction and summary

#### A. Introduction

- 1. For the Kingdom of Denmark, which includes Denmark, Greenland and the Faroe Islands, the Convention entered into force on 21 March 1994. Under the Convention, the European Union (EU) and its member States made a commitment to reduce its greenhouse gas (GHG) emissions by 20 per cent compared with the 1990 level by 2020. Denmark, as a member state of the EU, will contribute jointly together with all member States of the EU to achieving this target. Since the Faroe Islands and Greenland are not included in the EU, the EU target under the Convention does not apply to these territories.
- 2. This report covers the in-country technical review of the first biennial report (BR1) of Denmark coordinated 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" (decision 23/CP.19).
- 3. The review took place from 17 to 22 March 2014 in Copenhagen, Denmark, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Mr. Hoseok Kim (Republic of Korea), Ms. Kristina Saarinen (Finland), Ms. Dovilé Vaitkuté (Lithuania), and Mr. Vute Wangwacharakul (Thailand). Ms. Saarinen and Mr. Wangwacharakul were the lead reviewers. The review was coordinated by Mr. Bernd Hackmann and Mr. Javier Hanna (secretariat).
- 4. During the review, the expert review team (ERT) examined each section of the BR1, including the common tabular format (CTF) tables.
- 5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of Denmark, which provided comments that were considered and incorporated, as appropriate in this final version of the report.

## B. Summary

- 6. The ERT conducted a technical review of the information reported in the BR1 of Denmark in accordance with the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs). The ERT identified gaps and issues in reported information that are summarized in table 1.
- 7. During the review, Denmark provided further relevant information in particular on: the provision of financial support to developing country Parties; the approach used to track support provided; technology development and transfer; and capacity-building. Additional information was also provided on the characteristics of the support, highlighting the difficulties Denmark had in clearly identifying whether the types of support pertained to mitigation and/or adaptation and in allocating support according to the mitigation/adaptation divide in the CTF tables. Denmark has also provided additional information on its definition of 'new and additional' financial resources, the monitoring and evaluation system, and the tracking of progress and achievements as well as the needs of developing countries.

The Convention was ratified by the Kingdom of Denmark, comprising Denmark, Greenland and the Faroe Islands, while the Kyoto Protocol was ratified with a territorial exclusion in respect of the Faroe Islands.

### 1. Completeness and transparency of reporting

8. Gaps and issues related to the reported information identified by the ERT are presented in table 1 below.

#### 2. Timeliness

9. The BR1 was submitted on 3 January 2014, after the deadline of 1 January 2014 mandated by decision 2/CP.17. The CTF tables were submitted on 7 January 2014. Denmark made a resubmission of its CTF tables on 7 April 2014.

#### 3. Adherence to the reporting guidelines

10. The information reported by Denmark in its BR1 is mostly in adherence to the UNFCCC reporting guidelines on BRs as per decision 2/CP.17 (see table 1).

Table 1 Summary of completeness and transparency issues of reported information in the first biennial report of Denmark

Sections of the biennial report	Completeness	Transparency	Reference to paragraphs
Greenhouse gas emissions and trends	Complete	Transparent	
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Transparent	
Progress in achievement of targets	Complete	Mostly Transparent	23
Projections	Complete	Transparent	
Provision of support to developing country Parties	Partially complete	Partially transparent	47–72

# II. Technical review of the reported information

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

- 11. Denmark has provided a summary of information on GHG emission trends for the period 1990–2011, consistent with the 2013 national GHG inventory submission. The inventory data for the Kingdom of Denmark, including Greenland and the Faroe Islands, is completely reported in Denmark's BR1. In addition, Denmark reported inventory data for Denmark alone since Greenland and the Faroe Islands are not part of the EU territory.
- 12. Total GHG emissions<sup>2</sup> excluding emissions and removals from land use, land-use change and forestry (LULUCF) decreased by 17.6 per cent between the base year and 2011, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 27.1 per cent over the same period. The decrease is mainly the result of the decreases in carbon dioxide ( $CO_2$ ) emissions by 16.3 per cent, methane ( $CH_4$ ) emissions by 9.0 per cent and nitrous oxide ( $N_2O$ ) emissions by 38.3 per cent from 1990 to 2011, whereas fluorinated gases (F-gases) (hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride ( $SF_6$ )) increased by 164.6 per cent from 1995 to 2011.

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<sup>&</sup>lt;sup>2</sup> In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent (CO<sub>2</sub> eq) excluding land use, land-use change and forestry, unless otherwise specified.

- 13. In its BR1, Denmark reports that the most significant emission reductions between 1990 and 2011 were observed in: the energy sector (15.8 per cent reduction), mainly attributed to changes in the fuel mix from coal to natural gas and renewable energy and a general decrease in gross energy consumption due to energy efficiency gains; the agriculture sector (22.8 per cent reduction), mainly due to the improved utilization of nitrogen in manure; and the waste sector (40.9 per cent reduction), mainly due the ban on landfilling combustible waste. The transport sector shows an increasing emission trend of 19.4 per cent over the same period, accounting for 22.7 per cent of the total emissions from the energy sector in 2011.
- 14. Compared with the total GHG emissions of Denmark, the total emissions of Greenland and the Faroe Islands have been almost constant since 1990, each accounting for about 1 per cent of the total emissions of the Kingdom of Denmark.
- 15. Further information on the review of emissions and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication (IDR/NC6).
- 16. In its BR1, Denmark has provided complete, transparent and detailed information on its national inventory arrangements for preparing GHG inventories and on the changes to these national inventory arrangements since its last national communication (NC). Further information on the national inventory arrangements are contained in the national inventory report (NIR) of the 2013 inventory submission from Denmark.
- 17. During the review, Denmark provided additional information, elaborating on the activity data of agriculture, forestry and waste.

# B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target

- 18. In its BR1, Denmark reported a description of its target, including associated conditions and assumptions. Under the Convention, the EU and its member States, including Denmark, communicated an independent quantified economy-wide emission reduction target of a 20 per cent emission reduction by 2020 compared with 1990 levels. The target will be fulfilled jointly with the EU and its member States. The joint EU target is implemented through binding legislation in place since 2009 (climate and energy package), including the European Union Emissions Trading System (EU ETS) and the effort-sharing decision (ESD).
- 19. Under the ESD, Denmark is committed to a reduction of GHG emissions in non-ETS sectors by 20 per cent relative to 2005 for the period from 2013 to 2020.
- 20. The joint EU target defines 1990 as base year for  $CO_2$ ,  $CH_4$  and  $N_2O$ , and 1995 for HFCs, PFCs and  $SF_6$ . Furthermore, it sets the period for achieving the target for 2013 to 2020. It covers the energy sector, including transport, the industrial processes sector, including the solvent and other product use sector, and the agriculture and waste sectors. For all included gases, the global warming potential (GWP) values from the Intergovernmental Panel on Climate Change Fourth Assessment Report (AR4) are used. The contribution of emissions or removals from LULUCF in the base year level is excluded from the joint target. Denmark does not foresee the use of market-based mechanisms defined by the Convention in achieve the quantified economy-wide target.
- 21. In its BR1, Denmark states that Greenland and the Faroe Islands are not included in the EU territory, and that therefore the EU target under the Convention is not applicable to these parts of the Kingdom of Denmark.

22. Furthermore, in its BR1, Denmark reported on its long-term domestic strategy towards reducing GHG emissions by between 80 and 95 per cent by 2050. In this context, Denmark has set an ambitious domestic quantified economy-wide emission reduction target of a 40 per cent reduction by 2020 compared to 1990 levels. For this domestic target, removal units on the basis of its activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol will be taken into account as an annual average in the period 2013–2019, and emissions in 2020 will be adjusted for electricity trading purposes when assessing whether the 2020 40 per cent domestic target has been met. Denmark clarifies in its BR1 that neither Greenland nor the Faroe Islands are included in Denmark's domestic target.

## C. Progress made towards the achievement of the quantified economywide emission reduction target

- 23. In its BR1 and CTF tables 3 and 4, Denmark reported information on its mitigation actions implemented and planned since its fifth national communication (NC5) to achieve its target. Denmark also reported on the use of units from market-based mechanisms and LULUCF to achieve its targets. The information in the text of the BR1 on the LULUCF sector and the use of units from market-based mechanisms is consistent with the information provided in the CTF tables. Denmark reports that information on emission reductions and removals from LULUCF and the use of units from the market-based mechanisms will not be available until after the first reporting of the 2013 inventory data in April 2015. Therefore, the information on progress in achieving the quantified economywide emission reduction target contained in CTF tables 4, 4(a) and 4(b) are reported as "NA" (not applicable) for the contribution from LULUCF and on the use of carbon credits from market-based mechanisms.
- 24. The ERT recommends that Denmark report transparent information describing the progress towards the target under the Convention, including the use of market-based mechanisms in the text of its next biennial report (BR) and the relevant CTF tables.
- 25. The ERT reviewed the reported information and provided its assessment of progress made towards achieving the target under the Convention. The ERT noted the significant progress made by Denmark, reported in both the BR1 and sixth national communication (NC6). Denmark has already reduced its total emissions without LULUCF by 17.6 per cent compared with the base year in 2011 and projects its total emissions without LULUCF in 2020 to be 35.2 per cent below the base year. In its NC6, Denmark also reports significant reductions for sectors covered under the EU ETS as well as non-ETS sectors that are covered under the ESD for this period. Emissions covered under the ESD are projected to exceed the non-ETS target by on average approximately 2,000 kt CO<sub>2</sub> eq per year.
- 26. Regarding the progress towards Denmark's domestic target of a 40 per cent reduction by 2020 compared with 1990 levels, the ERT noted that according to the projections Denmark is unlikely to reach this target without the adoption and implementation of additional policies and measures (PaMs). The 40 per cent emission reduction target would translate to total emissions of approximately 42,200 kt CO<sub>2</sub> eq in 2020. When comparing this with the projected emission level for 2020 of 44,898 kt CO<sub>2</sub> eq, Denmark would fall short in reaching its target by around 2,700 kt CO<sub>2</sub> eq. In its NC6, Denmark reports that possible additional measures to close this gap are under consideration and provided in the 2013 'Catalogue of Danish Climate Change Mitigation Measures'.

### 1. Mitigation actions and their effects

27. Denmark has provided in its BR1 information on its package of mitigation actions introduced to achieve its target. Denmark reports that textual information on its mitigation

actions, including information on PaMs implemented or planned to achieve the economy-wide emission reduction target, is included in chapter 4 of Denmark's NC6. In its NC6 Denmark reported on its PaMs adopted, implemented and elaborated in achieving its commitments under the Convention. Denmark provided information on PaMs by sector and by gas and a description of the principal PaMs. CTF table 3 provided information on the mitigation actions organized by sector and by gas, and is consistent with the relevant information reported in the NC6. A detailed review of the reported information is provided in chapter II.B of the IDR/NC6.

- 28. Since 1990 a broad range of national policies and measures have been implemented across all sectors in Denmark with a significant impact on its total GHG emissions. The list of these mitigation measures together with the evaluation of their mitigation effects is provided in CTF table 3.
- 29. The 2011 Government Platform elevated climate change to a high priority and regards it as an incubator for innovating, creating jobs, increasing exports of green technologies, upgrading the skills of the workforce and covering the energy supply entirely by renewable energy by 2050 and thus achieving fossil fuel independence over the long term.
- 30. Denmark's climate change policy portfolio has evolved over the years, shifting from relying primarily on taxes to utilizing more flexible emissions trading approaches in accordance with the EU legislative requirements. Central to the policy portfolio is the EU ETS that covers approximately half of Denmark's total GHG emissions and, as of 2008, became the most important measure in Denmark for the fulfilment of its obligations under the Kyoto Protocol.
- 31. Denmark provided information on changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress made towards its target. Additional information is provided in chapters II.A and II.B of the IDR/NC6.
- 32. Denmark provided a comprehensive list of mitigation measures with an evaluation of their effects in its CTF table 3, however the evaluation was mostly either for the year 2010 or the period 2008–2012. The ERT noted that most of the estimates for the mitigation impacts of individual PaMs are based on Denmark's 2005 Effort Analysis, which provides the estimated and expected total effect for the period 2008–2012 for PaMs that were implemented in the period 1990–2001.
- 33. The BR1 and CTF table 3 do not include some of the information required by the UNFCCC reporting guidelines on BRs regarding the effects of individual PaMs for 2020. The ERT noted that, based on the reported information, progress towards the achievement of the quantified economy-wide emission reduction target is hard to assess. Therefore, the ERT strongly encourages Denmark to improve the transparency of its reporting, and to conduct and provide a more comprehensive and up-to-date assessment of the effects of planned and implemented individual PaMs in its next BR. Table 2 provides a concise summary of the key mitigation actions implemented by Denmark to achieve its target."

 $\begin{tabular}{ll} Table 2 \\ \textbf{Summary of information on mitigation actions reported by Denmark} \\ \end{tabular}$ 

Sectors affected	List of key mitigation actions	Estimate of mitigation impact for 2008–2012, (kt CO <sub>2</sub> eq)
Policy framework and cross-sectoral measures	EU CO <sub>2</sub> allowances for electricity and district heat production and certain industrial processes (including business)	NE
Energy	Energy taxes	1 000
Energy supply	Mineral Oil Tax Act	1 200
	CO <sub>2</sub> tax on energy products	410
	Tax on CH <sub>4</sub> from natural gas-fired power plants – equivalent to the CO <sub>2</sub> tax	20
Renewable energy	Biomass Agreement (agreement on the use of biomass in electricity production)	1 100
	Renewables for the industry (promotion of investment in energy efficient use of renewable energy)	1 000 in 2020
	Biogas plants	17–36 in 2008–2012
Energy efficiency	Agreements on energy efficiency with energy- intensive enterprises	240 in 2020 900
	Savings activities by electricity grid, gas, oil and district heating companies	60
Residential and commercial sectors	Energy labelling of small and large buildings (including public sector and business)	400
	Substitution of individual oil-based furnaces	20
Transport	Green Owner Tax – a fuel-efficiency-dependent annual tax on motor vehicles	600
	EU requirements regarding biofuels	290
Industrial sectors	Tax on HFCs, PFCs and $SF_6$ – equivalent to the $CO_2$ tax	400 in 2008–2012 20 in 2015
Agriculture	Action Plan for the Aquatic Environment I+II	2 200
	Action Plan for the Aquatic Environment III	200
	Reduced emissions of ammonia	30
	Agreement on Green Growth (reduced use of nitrogen)	800 in 2020
Forestry	Ban on burning croplands	1.8

Sectors affected	List of key mitigation actions	Estimate of mitigation impact for 2008–2012, (kt CO <sub>2</sub> eq)
	Subsidies scheme for private afforestation on agricultural land	120 in 2008–2012 280 in 2020
	Public afforestation (state, counties and municipalities)	68 in 2008–2012 123 in 2020
	Planting of windbreaks	140
Waste management	Obligation to send combustible waste to incineration	333

*Note*: The greenhouse gas reduction estimates, given for some measures (in parentheses) are annual average reductions in CO<sub>2</sub> or CO<sub>2</sub> eq for the period 2008–2012 unless stated otherwise.

Abbreviations:  $CO_2$  = carbon dioxide, EU = European Union, HFCs = hydrofluorocarbons, NE = not estimated, PFCs = perfluorocarbons,  $SF_6$  = sulphur hexafluoride.

- 34. In its BR1, Denmark did not provide information on the assessment of the economic and social consequences of response measures on developing countries. This information is provided in Denmark's NIR of the 2013 annual submission and in Denmark's NC6. In its BR1, Denmark reported, however, that an analysis of economic consequences in Denmark is performed in cases where new measures are planned to be implemented. This assessment is carried out by the Government's interministerial working group and a final assessment with a proposal will be delivered to Parliament. As an example, in August 2013 the results of the socioeconomic analysis were published in parallel with the Government's Climate Policy Plan; this analysis included a catalogue of potential additional measures with potential emission reductions and the related costs.
- 35. The ERT encourages Denmark to include information on the assessment of the economic and social consequences of response measures on developing countries in its next BR.

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

- 36. Denmark reported in its BR1 and CTF table 4 on its plans to use market-based mechanisms under the Convention and other mechanisms, and on the contribution from LULUCE.
- 37. Under the Convention, the EU and its member States made a commitment to reduce its GHG emissions by 20 per cent compared with 1990 levels by 2020. Denmark, as a member State of the EU, will contribute jointly together with all member States of the EU to achieving this target. The EU target does not include emissions and removals from LULUCF. The EU target generally allows member States to use certified emission reductions and emission reduction units as well as units from new market mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project, and up to an established limit.
- 38. Denmark reported in its BR1 that it will not use removal units from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol or any possible future credits from LULUCF under the Convention for the purpose of achieving the quantified economy-wide emission reduction target.

Table 3
Summary information on the use of units from market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made towards achievement of the target by Denmark

Year	Emissions excluding LULUCF (kt CO2 eq) <sup>a</sup>	$\begin{array}{c} \textit{LULUCF}\\ \textit{emissions/removals}\\ \textit{(kt CO}_2\textit{eq)}^{\textit{b}} \end{array}$	Emissions including LULUCF $(kt\ CO_2\ eq)^t$	Use of units from the market-based mechanisms (kt CO <sub>2</sub> eq) <sup>c</sup>
Base year	68 720.33	NA	NA	NA
2010	61 217.42	NA	NA	NA
2011	56 248.45	NA	NA	NA

<sup>&</sup>lt;sup>a</sup> Emissions excluding LULUCF are for Denmark only, since Greenland and the Faroe Islands are not included in the EU territory, and therefore the EU target under the Convention is not applicable to these parts of the Kingdom of Denmark.

Abbreviations: LULUCF = land use, land-use change and forestry, NA = not applicable.

- 39. In its BR1, Denmark also reported that it does not foresee using credits from market-based mechanisms under the Convention to comply with its quantified economy-wide emission reduction target.
- 40. The ERT noted that the relevant information on the use of market-based mechanisms under the Convention and other mechanisms, and on the contribution from LULUCF is reported not applicable ("NA") in CTF tables 4, 4(a) and 4(b) (see para. 23 above).

#### 3. Projections

- 41. Denmark has provided in its BR1 and CTF tables 5 and 6 comprehensive and well-organized information on its updated projections for 2020 and 2030. A detailed review of the reported information is provided in chapter II.C of the IDR/NC6.
- 42. The ERT took note of the information reported by Denmark on projected emission trends up to 2020 and 2030. In its projections, Denmark estimates significant emission reductions (35.2 per cent by 2020 and 35.3 per cent by 2030 compared with 1990 levels). On the basis of these projections Denmark is expected to continue contributing within the EU towards achieving the joint EU targets under the Convention and under the second commitment period of the Kyoto Protocol.
- 43. With regard to Denmark's progress towards its domestic target, the ERT noted that, according to the projections, Denmark is unlikely to reach this target without the adoption and implementation of additional PaMs (see para. 26 above). During the review, the ERT was informed that the Danish Government's Climate Policy Plan includes a strategy on how additional PaMs should be determined for the purpose of achieving the domestic 40 per cent reduction target by 2020 in the most efficient manner. However, the additional PaMs that would be necessary to reach the domestic target by 2020 are not included as part of a 'with additional measures' scenario in CTF table 6(c).
- 44. To increase the transparency of its reporting, the ERT encourages Denmark to include the additional PaMs that Denmark plans to implement prior to 2020 in its 'with additional measures' projection scenario in its next BR.

<sup>&</sup>lt;sup>b</sup> The EU unconditional commitment to reduce GHG emissions by 20 per cent by 2020 compared with 1990 does not include emissions/removals from LULUCF.

<sup>&</sup>lt;sup>c</sup> Denmark reported not to use units from the market-based mechanisms towards achievement of its target.

- 45. Denmark provided in CTF table 5 complete information on key variables and assumptions used in the projection analysis, and reported trends and projections in CTF table 6(a) for a 'with measures' scenario and in CTF table 6(b) for a 'without measures' scenario based on an ex-ante estimates in Denmark's Effort Analysis (see also para. 32 above) carried out in 2003–2005 for the period 2008–2012 (projection estimate for 2008–2012 in 2003: 80,100 kt CO<sub>2</sub> eq/year without LULUCF). The ERT noted that Denmark did not provide a 'without measures scenario' for recent years or for the years 2020 and 2030. To increase the transparency of its reporting, the ERT encourages Denmark to provide a 'without measures scenario' for recent years as well as for the years 2020 and 2030 in its next BR.
- 46. Denmark did not provided information on the changes since the previous NC in the methodologies used for the preparation of projections in its BR1. In its NC6, however, Denmark reported the changes in the methodology compared to its NC5. To assess the impact of the changes on the projections, the NC6 provides a comparison of the latest reported GHG inventory with the 'with measures' projections of the total GHG emissions reported in Denmark's NC1 to NC6, which produces no clear difference in the projections. The ERT encourages Denmark to report on the changes, since its most recent NC, in the model or methodologies used for the preparation of its projections.

# D. Provision of financial, technological and capacity-building support to developing country Parties

#### 1. Provision of support to developing country Parties

- 47. In its BR1 and CTF table 5, Denmark reported information on the provision of financial, technological and capacity-building support required under the Convention, both in textual format and in CTF tables 7, 7(a) and 7(b) for 2011 and 2012. In reporting information in the CTF tables, Denmark has used the methodology and assumptions applied in reporting similar information in its NC6. The BR1, however, did not summarize or cross-reference the information available in the NC6.
- 48. The ERT noted that the BR1 only contains limited information on the provision of financial, technological and capacity-building support to developing countries in addition to the information reported in the CTF tables, whereas the NC6 provides complete and transparent information in this regard.
- 49. During the review, Denmark provided additional information elaborating on the provision of financial, technological and capacity-building support to developing countries, and provided an overview of relevant information in the BR1, in particular on the support provided to developing countries, the tracking of the provision of support, on how Denmark seeks to ensure to address the needs of developing countries and on private financial flows. The Danish Climate Investment Fund offers an example of a Danish public/private partnership through which substantial public and private contributions will mobilize additional private mitigation and adaptation investments in developing countries in the years to come. With an initial fund size of Danish krone (DKK) 1.3 billion provided by the Danish Government, the Danish Investment Fund for Developing Countries and various institutional investors, the Fund is expected to mobilize further investments in the range of DKK 8–9 billion from other investors. The ERT acknowledges with appreciation the additional information.
- 50. The ERT recommends that Denmark follow the UNFCCC reporting guidelines on BRs more closely and provide more detailed information on the provision of financial, technological and capacity-building support to developing countries in textual format to

enhance the completeness and transparency of its next BR, in particular on the above-mentioned issues (see also paras. 53, 55, 59, 61, 62, 70 and 72 below).

- 51. The ERT noted discrepancies in the CTF between the total figures in CTF table 7 and the summation of disaggregated values in corresponding tables 7(a) and 7(b). During the review, Denmark provided additional information and revised values for CTF tables 7, 7(a) and 7(b) that increased the transparency of the information. The revised tables were included in Denmark's resubmission of its CTF tables. To enhance transparency, the ERT encourages Denmark to improve the consistency of figures in its CTF tables and to provide explanations for those discrepancies in its next BR, as well as recommending that the Party provide a textual summary description of the financial support it has provided, committed and/or pledged to developing countries in addition to the information provided in the CTF tables.
- 52. The revised CTF tables of Denmark provided details of the flows of financial resources, through multilateral, bilateral and other channels between 2011 and 2012. The amount of support increased from about United States dollars (USD) 396 million in 2011 to USD 416 million in 2012. The increase was largely through bilateral, regional and other channels.
- 53. In its BR1, Denmark distinguishes between its contributions that are delivered through bilateral, regional and other channels, based on whether they are distinguished between mitigation and/or adaptation and cross-cutting using the 'Rio markers' method. The aim is to achieve a reasonable balance between adaptation and mitigation activities. The descriptions of the contributions delivered through multilateral channels identify status, funding sources and financial instruments. Information on the distribution of contributions between mitigation and adaptation, the types of support provided, and relevant sectors were not reported completely in the CTF tables. During the review, Denmark provided the missing information.
- 54. In order to improve the transparency of its reporting, the ERT recommends that Denmark provide the summary information on its annual contributions, including the type of support regarding mitigation and adaptation and sectors supported in the CTF tables and as a textual description in its BR.
- 55. In its CTF table 7, Denmark provided details on what "new and additional" financial resources it has provided and clarified how these resources are "new and additional". During the review, Denmark further clarified that, in the absence of an internationally agreed definition, the 'new and additional' financial resources refer to the Danish development assistance related to the UNFCCC which is not diverted away from other priorities, such as poverty alleviation and education, and is contained in the Danish official development assistance (ODA) that goes beyond the United Nations' target of 0.7 per cent of gross national income (GNI). Denmark provided 0.85 and 0.84 per cent of its GNI in ODA in 2011 and 2012, respectively.
- 56. ERT took note of Denmark's working definition and the fact that Denmark is among the five countries in the world providing more than 0.7 per cent of its GNI in ODA. The ERT recommends that Denmark, in order to increase the transparency of its reporting, provide further information, as provided during the review, on its working definition of how resources are considered as "new and additional" and what "new and additional" financial resources it has provided.

Table 4 **Summary of information on financial support for 2011–2012**(United States dollars millions)

	Years of disbursement	
Allocation channel of public financial support	2011	2012
Official development assistance <sup>a</sup>	2 931	2 693
Climate-specific contributions through multilateral channels, including:	287	264
Contribution to the GEF	19	17
Trust Fund for Supplementary Activities		0.5
Multilateral financial institutions, including regional development banks	161	171
Contributions through United Nations' bodies	83	68
Other multilateral climate change channels (GGGI, GCPF)	24	
Other multilateral climate change channels (CIF)		8
Climate-specific contributions through bilateral, regional and other channels	109	137.5

Abbreviations: CIF = Danish Climate Investment Fund, GCPF = Global Climate Partnership Fund, GEF = Global Environment Facility, GGGI = Global Green Growth Institute.

#### 2. Approach used to track support provided

- 57. According to the UNFCCC reporting guidelines on BRs, Denmark shall provide a description of its national approach for tracking the provision of financial, technological and capacity-building support to Parties not included in Annex I to the Convention (non-Annex I Parties), including information on indicators, delivery mechanisms used and allocation channel tracked. Denmark did not provide such information in its BR1.
- 58. During the review, additional information was provided on Denmark's national approach for tracking the provision of financial, technological and capacity-building support to developing country Parties. Denmark uses the Danida Aid Management Guidelines,<sup>3</sup> which provide the framework for the national approach for tracking the provision of financial, technological and capacity-building support to non-Annex I Parties. The framework includes: i) steps for the preparation phase, including set-up of the results framework, risk management, appraisal and appropriation; ii) implementation arrangements and requirements to partners, auditing and reviews; and iii) the completion phase, including evaluation. Denmark also indicated that the basic principle of Danish development assistance, including climate finance, is to provide assistance on demand. Ownership of the recipient countries is a fundamental precondition. This ensures that the resources provided effectively address the needs of non-Annex I Parties.
- 59. The ERT recommends that Denmark further elaborate on its national approach for tracking the provision of financial, technological and capacity-building support to non-Annex I Parties, describe further how it ensures that the support it provides effectively addresses the needs of developing countries in accordance with the UNFCCC reporting guidelines on BRs, and provide such information in its next BR.

<sup>&</sup>lt;sup>a</sup> Source: Query Wizard for International Development Statistics, available at <a href="http://stats.oecd.org/qwids/">http://stats.oecd.org/qwids/</a>>.

<sup>&</sup>lt;sup>3</sup> <www.amg.um.dk>.

- With regard to the most recent financial contributions, such as fast-start finance to 60. enhance the implementation of the Convention by developing countries, Denmark did not provide such information in the BR1. During the review, Denmark provided additional information relevant to its commitments in providing development assistance, including those related to climate change in the years to come. The ERT noted that Denmark has a long track record of mobilizing private capital to developing countries. Since the beginning of the 1990s, Denmark has a mixed credit scheme (following Organisation for Economic Co-operation and Development rules governing the use of tied aid – the Helsinki Package), which today is called Danida Business Finance. Denmark also has a private sector programme, which has developed into Danida Business Partnership to facilitate partnerships between Danish and developing country companies with the aim of transferring technology and good practice. These programmes are not dedicated to climate as such, but they do include climate-relevant activities. In 2012, the Danish Government decided to set up a Danish Climate Investment Fund, which is managed by the Danish institution, Investment Fund for Developing Countries (IFU). With limited public capital, institutional investors (typically pension funds) contribute to this fund that at the end is expected to result in investments in the order of 15–20 times the public contribution.
- 61. The ERT encourages Denmark to provide such information in textual format in its next BR to improve the transparency of its reporting.
- 62. Furthermore, the ERT encourages Denmark to provide additional information on private financial flows and PaMs that promote private investments towards mitigation and adaptation in activities in developing countries.

#### 3. Technology development and transfer

- 63. The UNFCCC reporting guidelines on BRs require Parties included in Annex II to the Convention (Annex II Parties) to provide information on measures taken to promote, facilitate and finance the transfer of, access to, and deployment of climate-friendly technologies for the benefit of non-Annex I Parties, and for the support of the development and enhancement of endogenous capacities and technologies of non-Annex I Parties. In its BR1 and CTF table 8, Denmark stated that, although support for the transfer of technology to developing countries in relation to implementation of the Convention is significant and comprises the transfer of both 'soft' and 'hard' technologies, it cannot be clearly separated from other activities in Danish development cooperation.
- 64. The CTF tables submitted by Denmark did not provide the reporting elements required by the UNFCCC reporting guidelines for BRs. Also, Denmark did not provide the reporting elements required by the UNFCCC reporting guidelines for BRs with regard to the provision of information on the recipient countries, target areas, sectors involved and sources of technology, although it did provide descriptions of selected programmes/projects to advance and/or finance technology transfer in developing countries, for example Burkina Faso, Indonesia and Nepal in its BR1.
- 65. During the review, Demark provided additional information in both textual and tabular formats elaborating on measures taken to promote, facilitate and finance the transfer of, access to, and deployment of climate-friendly technologies for developing countries, indicating that it does not have such detailed information in an electronic database for each of its several hundred projects, and therefore cannot provide all the detailed information in CTF table 8 with specific information on the recipient country. The revised CTF tables, including some examples of technology transfer, were included in Denmark's resubmission of its CTF tables.
- 66. Among Denmark's most important activities in the area of technology transfer is the support Denmark provides to the energy sectors in a number of developing countries, such

as support for energy planning, the establishment of wind farms, the promotion of energy efficiency and the sustainable use of biomass. Capacity-building components are an integral part of these projects.

- 67. Denmark also indicated during the review that its IFU has co-invested with Danish companies in 812 projects in 88 developing countries. The investment generally produced positive results for all Parties involved. Such investments have helped to create approximately 350,000 jobs, in addition to the transfer of knowledge and technology. The bilateral development cooperation also includes technical assistance for capacity-building. Denmark provided multilateral support programmes, through the United Nations Environment Programme Risoe Centre, in promoting transfer of technology, especially to the Climate Technology Centre and Network in 2013.
- 68. Regarding success and failure stories, an evaluation of Denmark's climate change funding to developing countries is expected to be available at the end of 2015, or the first half of 2016, that will cover among other things such case stories.
- 69. The ERT encourages Denmark to follow the UNFCCC reporting guidelines for BRs more closely and recommends that the Party provide more detailed information, to the extent possible, on measures taken to promote, facilitate and finance the transfer of, access to, and deployment of climate-friendly technologies for developing countries, including for the support of the development and enhancement of endogenous capacities and technologies with more specific information on the recipient country, the target area of mitigation or adaptation, the sector involved and the sources of technology transfer from the public or private sectors, both in textual and tabular formats to enhance the transparency of its next BR.

#### 4. Capacity-building

- 70. According to the UNFCCC reporting guidelines for BRs, each Annex II Party shall provide information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by non-Annex I Parties in the areas of mitigation, adaptation, and technology development and transfer. In its BR1, Denmark did not provide this information.
- 71. During the review, Denmark provided additional information on its capacity-building support to developing countries and highlighted that, similar to technology transfer, capacity-building activities are an integral part of almost all project activities and that it is not possible to report on these separately. Denmark further elaborated that the large amount of records for projects using ODA made it impossible to report on these in CTF table 9.
- 72. In its resubmission of the CTF tables, Denmark provided this information together with some examples of capacity-building support. The ERT encourages Denmark to report the provided information on capacity-building in textual and tabular formats in its next BR in order to enhance the transparency of its reporting.

## **III.** Conclusions

73. The ERT noted that the information reported in the BR1 of Denmark is in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the BR1 and CTF tables are partially complete and partially transparent and provide a general overview of information on emissions and removals related to the quantified economy-wide emission reduction target, a description of the target, progress made by Denmark to achieve its target, and provision of support to developing country Parties.

- 74. During the review, Denmark provided additional information on the provision of financial, technological and capacity-building support to developing country Parties, including on the approach used to track support provided.
- 75. Denmark's emissions and removals related to the targets were estimated for 2011 to be 17.6 per cent below its 1990 level excluding LULUCF and 27.1 per cent below including LULUCF. Emissions decreases since 1990 were driven by significant emission reductions in the following sectors: energy (15.8 per cent reduction), mainly attributed to changes in the fuel mix from coal to natural gas and renewable energy and a general decrease in gross energy consumption due to energy efficiency gains; agriculture (22.8 per cent reduction), mainly due to the improved utilization of nitrogen in manure; and waste (40.9 per cent reduction), mainly due to the ban on landfilling combustible waste. The transport sector, however, shows an increasing emission trend of 19.4 per cent over the same period, accounting for 22.7 per cent of the total emissions from the energy sector in 2011.
- 76. Under the Convention, the EU and its member States, including Denmark, communicated an independent quantified economy-wide emission reduction target of a 20 per cent emission reduction by 2020 compared with 1990 levels. The target will be fulfilled jointly by the EU and its member States. Since the Faroe Islands and Greenland are not included in the EU, the EU target under the Convention does not apply to these territories.
- 77. The joint EU target defines 1990 as the base year for  $CO_2$ ,  $CH_4$  and  $N_2O$ , and 1995 as the base year for HFCs, PFCs and  $SF_6$ . Furthermore, it sets the period for achieving the target for 2013–2020. It covers the energy sector, including transport; the industrial processes sector, including solvent and other product use; and the agriculture and waste sectors. For all included gases, the GWP values from AR4 are used. The contribution of emissions or removals from LULUCF in the base year level is excluded from the joint target. Denmark does not foresee the use of market-based mechanisms defined by the Convention to achieve the quantified economy-wide target.
- 78. With regard to the progress made towards the targets, the ERT noted that significant progress had been made by Denmark. Denmark has already reduced its total emissions without LULUCF by 17.6 per cent in 2011 below the base year and projects its total emissions without LULUCF to be 35.2 per cent below the base year in 2020, in line with its national target of a 40 per cent reduction below 1990 by 2020. On the basis of these trends and projections, Denmark is expected to continue contributing within the EU towards the achievement of the joint EU targets under the Convention.
- 79. Denmark's emission trends and projections are underpinned by a long-standing and yet innovative mix of policies across all sectors. In Denmark, three complementary crosscutting policies and policy instruments are at the core of its policy portfolio: the EU ETS, the energy and carbon taxes and incentives, and other instruments such as support provided for research and development.
- 80. Denmark continues to provide ODA at a level exceeding the United Nations' target of 0.7 per cent of GNI. Denmark provided 0.85 and 0.84 per cent of its GNI as ODA in 2011 and 2012, respectively. Denmark's provision of financial support related to climate change to developing country Parties is not diverted away from other priorities, such as poverty alleviation and education, and is considered as 'new and additional' as it is contained in Denmark's ODA, which goes beyond the United Nations' target of 0.7 per cent of GNI.
- 81. The promotion, facilitation and financing of technology transfer to developing countries remains among the top priorities of Danish development assistance. Denmark's most important activities in the area of technology transfer include the support Denmark

provides to the energy sector in a number of developing countries, such as support for energy planning, the establishment of wind farms, the promotion of energy efficiency, and the sustainable use of biomass. Capacity-building components are an integral part of these projects.

- 82. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of Denmark's reporting under the Convention. The key recommendations<sup>4</sup> are that Denmark:
- (a) Improve the completeness of reporting by including in the next BR the following information:
  - (i) A textual summary description of the financial support it has provided, committed and/or pledged to developing countries in addition to the information provided in the CTF tables (see para. 51 above);
  - (ii) Its national approach for tracking the provision of financial, technological and capacity-building support to non-Annex I Parties, as well as further describing how Denmark ensures that the support it provides effectively addresses the needs of developing countries in accordance with the UNFCCC reporting guidelines on BRs (see para. 59 above);
  - (b) Improve the transparency of reporting in the next BR by:
  - (i) Including transparent information describing the progress towards the target under the Convention, including the use of market-based mechanisms, in the text of its next BR and the relevant CTF tables (see para. 24 above);
  - (ii) Following the UNFCCC reporting guidelines for BRs more closely and providing more detailed information on the provision of financial, technological and capacity-building support to developing countries in textual format (see para. 50 above);
  - (iii) Including summary information on Denmark's annual financial contributions, including the type of support regarding mitigation and adaptation and sectors supported in the CTF tables and as a textual description (see para. 54 above);
  - (iv) Including further information, as provided during the review, on its working definition of how resources are considered as "new and additional" and what "new and additional" financial resources Denmark has provided (see para. 56 above);
  - (v) Providing more detailed information, to the extent possible, on the measures taken to promote, facilitate and finance the transfer of, access to and deployment of climate-friendly technologies for developing countries, including for the support of the development and enhancement of endogenous capacities and technologies with more specific information on the recipient country, the target area of mitigation or adaptation, the sector involved, and the sources of technology transfer from the public or private sectors (see para. 70 above).

<sup>&</sup>lt;sup>4</sup> The recommendations are given in full in the relevant sections of this report.

### **Annex**

# Documents and information used during the review

### A. Reference documents

"UNFCCC biennial reporting guidelines for developed country Parties". Annex to decision 2/CP.17. Available at

<a href="http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf">http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf</a>#page=4>.

"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 23/CP.19. Available at <a href="http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20">http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20</a>>.

FCCC/ARR/2012/DNK. Report of the individual review of the annual submission of Denmark submitted in 2012. Available at

<a href="http://unfccc.int/resource/docs/2013/arr/dnk.pdf">http://unfccc.int/resource/docs/2013/arr/dnk.pdf</a>.

FCCC/IDR.5/DNK. Report of the in-depth review of the fifth national communication of Denmark. Available at <a href="http://unfccc.int/resource/docs/2010/idr/dnk05.pdf">http://unfccc.int/resource/docs/2010/idr/dnk05.pdf</a>.

Sixth national communication of Denmark. Available at

<a href="http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf/nc6andbr1-dnk-2jan2013%5B1%5D.pdf">http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf/nc6andbr1-dnk-2jan2013%5B1%5D.pdf</a>.

First biennial report of Denmark. Available at

 $< http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf/nc6andbr1-dnk-2jan2013\%5B1\%5D.pdf>.$ 

2013 GHG inventory submission of Denmark. Available at

<a href="http://unfccc.int/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/items/7383.php">http://unfccc.int/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/items/7383.php</a>.

## B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Erik Rasmussen, including additional material on updated policies and measures, greenhouse gas projections, the national registry and recent climate policy developments in Denmark and additional information on the provision of financial, technological and capacity-building support to developing countries. The following documents<sup>1</sup> were also provided by Denmark:

Danish Energy Agency. 2010. The Danish JI and CDM Program – Seven Years' Experience with Climate Projects around the World. Copenhagen.

Inter-ministerial working group. August 2013. Catalogue of Danish Climate Change Mitigation Measures: Reduction Potentials and Costs of Climate Change Mitigation Measures.

Task Force on Climate Change Adaptation. May 2012. Mapping Climate Change – Barriers and Opportunities for Action, Working Document.

The Danish Government. December 2012. *How to Manage Cloudburst and Rain Water – Action Plan for a Climate-proof Denmark*. Copenhagen: Task Force for Climate Change

<sup>&</sup>lt;sup>1</sup> Reproduced as received from the Party.

Adaptation, Danish Nature Agency. Available at <www.nst.dk> and <www.klimatilpasning.dk>.

The Danish Government. August 2013. *The Danish Climate Policy Plan – Towards a Low Carbon Society*. 2012/2013/8. Copenhagen: The Ministry of Climate, Energy and Building. Available at <www.kebmin.dk>.

The Ministry of Climate, Energy and Building. *All about China – Information about the Joint Sino–Danish Cooperation on Renewable Energy*.

Tvaerministeriel arbejdsgruppe. August 2013. *Virkemiddelkatalog, potentialer og omkostninger for klimatiltag*. Copenhagen, the Ministry of Climate, Energy and Building. Available at <www.kebmin.dk> (in Danish).