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Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Denmark

Note by the expert review team


Summary

According to decision 2/CMP.8, each Party with a quantified emission limitation or reduction commitment inscribed in the third column of Annex B to the Kyoto Protocol, as contained in the annex to decision 1/CMP.8, shall submit to the secretariat a report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol. In accordance with decision 22/CMP.1, annex I, paragraph 11, in conjunction with decision 4/CMP.11, the report to facilitate the calculation of the assigned amount is subject to a review. This report presents the results of the technical review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, conducted by an expert review team in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”. The review took place from 26 September to 1 October 2016 in Roskilde, Denmark.

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I. Introduction¹

1. The review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol (hereinafter referred to as the report to facilitate the calculation of the assigned amount) of Denmark was organized by the UNFCCC secretariat, in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”.² The review took place from 26 September to 1 October 2016 in Roskilde, Denmark, and was coordinated by Mr. Tomoyuki Aizawa and Ms. Lisa Hanle (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of Denmark.

2. A draft version of this report was communicated to the Government of Denmark, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

Table 1

Composition of the expert review team that conducted the review of Denmark

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Ms. Anna Romanovskaya	Russian Federation
Energy	Mr. Leif Hockstad	United States of America
IPPU	Mr. Menouer Boughedaoui	Algeria
Agriculture	Mr. Leandro Buendia	Philippines
LULUCF	Mr. Harry Vreuls	Netherlands
Waste	Mr. Gabor Kis-Kovacs	Hungary
Lead reviewers	Mr. Menouer Boughedaoui	
	Ms. Anna Romanovskaya	

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry.

II. Summary of the reporting on mandatory elements in the report to facilitate the calculation of the assigned amount

3. Table 2 provides a summary of the ERT’s assessment of the reporting of mandatory elements by Denmark in its report to facilitate the calculation of the assigned amount. Key data and elections by the Party are included in table 4.³

¹ At the time of publication of this report, Denmark had not yet submitted its instrument of ratification of the Doha Amendment.

² Decision 22/CMP.1 and its annex and any revisions contained in decision 4/CMP.11 and its annex I.

³ This report is based on the data and information provided by the Party in its report to facilitate the calculation of the assigned amount; therefore, the data it contains and the assessment thereof apply to mainland Denmark only. In its report, Denmark states: “It should be noted that the Kyoto Protocol in 2002 was ratified with a territorial exclusion to the Faroe Islands”. Additionally, Denmark indicates that “the target for the second commitment period under the Kyoto Protocol will be ratified with [a] territorial exclusion to Greenland in accordance with an agreement with the Government of Greenland”. The ERT notes that, at the time of publication of this report, Denmark had not yet ratified

Table 2

Expert review team's assessment of the reporting of mandatory elements by Denmark in its report to facilitate the calculation of the assigned amount

<i>Item</i>	<i>Comment</i>	
<i>General Party information</i>		
Date of submission		Original submission: 15 June 2016
Are there any missing categories or issues related to completeness ^a in the reporting of GHG emissions by sources and removals by sinks for the base year or period?	No	
Was the GHG inventory recalculated in accordance with decision 4/CMP.7 for all years from 1990 to the most recent year available?	Yes	
Did the Party report the base year for NF ₃ ?	Yes	See annex I, table 4
<i>Information related to agreement by the Party under Article 4 of the Kyoto Protocol to implement commitments jointly</i>		
Has complete information been reported in accordance with decision 3/CMP.11, paragraph 11, by the Party in fulfilment of its agreement under Article 4 of the Kyoto Protocol in relation to the following:		
(a) Application of decision 1/CMP.8, paragraphs 23–26, related to carry-over and the previous period surplus reserve account	Yes	For further information, see ID#5 in table 3
(b) Calculation of base-year emissions	Yes	See annex I, table 4. For further information, see ID#1 in table 3
(c) Calculation of the assigned amount	Yes	See annex I, table 4. For further information, see ID#1 in table 3
(d) Calculation of the commitment period reserve	Yes	See annex I, table 4. For further information, see ID#2 in table 3
(e) Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	No	For further information, see ID#3 in table 3
<i>Information related to the assigned amount and the commitment period reserve</i>		
Was the assigned amount in the original submission calculated in accordance with Article 3, paragraph 8, of the Kyoto Protocol, Article 3, paragraphs 7 bis and 8 bis, as contained in the Doha Amendment, and decision 13/CMP.1 in conjunction with decision 3/CMP.11?	Yes	See annex I, table 4. For further information, see ID#1 in table 3

the Doha Amendment or submitted any relevant documentation on territorial coverage for the second commitment period of the Kyoto Protocol to the Depository (see http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php).

<i>Item</i>		<i>Comment</i>
Has the Party reported in the original submission the difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period, multiplied by eight?	No	See annex I, table 4. For further information, see ID#4 in table 3
Has the Party indicated in the original submission the approach ^b used to calculate average annual emissions for the first three years of the first commitment period?	No	See annex I, table 4. For further information, see ID#4 in table 3
Did land-use change and forestry constitute a net source of GHG emissions in the base year, and therefore did the Party include emissions from deforestation in the calculation of the assigned amount?	Yes	
Was the commitment period reserve in the original submission calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1, the annex to decision 13/CMP.1, paragraph 8 quinquies, and decision 1/CMP.8, paragraph 18?	Yes	See annex I, table 4
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>		
If the Party identified activities elected under Article 3, paragraph 4, of the Kyoto Protocol, are these elections in accordance with decision 2/CMP.7, annex, paragraphs 6–8?	Yes	See annex I, table 4
Do the activities elected under Article 3, paragraph 4, of the Kyoto Protocol for the second commitment period include at least those activities elected for the first commitment period?	Yes	
Is information reported on how the national system under Article 5, paragraph 1, of the Kyoto Protocol will identify land areas associated with all additional elected activities and how the Party ensures that land that was accounted for in the first commitment period continues to be accounted for in the second commitment period?	Yes	
Has the Party identified for each activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol whether it intends to account annually or for the entire commitment period?	Yes	See annex I, table 4
Did the Party provide information on the forest management reference level, including, if appropriate, information on technical corrections and information on how emissions from harvested wood products originating from forests prior to the start of the second commitment period have been calculated in the reference level?	Yes	See annex I, table 4
Has the Party reported the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF, in the original submission?	No	See annex I, table 4. For further information, see ID#3 in table 3
Did the Party indicate whether it intends to apply the provisions to exclude emissions from natural disturbances for the accounting for afforestation and reforestation and/or forest management and provide the relevant information in	Yes	See annex I, table 4

<i>Item</i>		<i>Comment</i>
accordance with decision 2/CMP.7, annex, paragraph 33?		
<i>Information related to the national system and national registry</i>		
Was a description of the national system provided, in accordance with the guidelines for national systems under Article 5, paragraph 1, of the Kyoto Protocol?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported
Was a description of the national registry provided, in accordance with the requirements contained in the annex to decision 13/CMP.1, the annex to decision 5/CMP.1 and the technical standards for data exchange between registry systems adopted by the CMP?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported

Abbreviations: CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, NA = not applicable.

^a Issues related to missing categories and completeness are only for those categories for which methods are available in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*.

^b Parties may elect to calculate average annual emissions for the first three years of the first commitment period by including either the gases and sources listed in Annex A to the Kyoto Protocol, or the GHGs, sectors and source categories used to calculate the assigned amount for the second commitment period.

III. Technical assessment of the elements reviewed

4. In accordance with decision 22/CMP.1, and in conjunction with decisions 4/CMP.11 and 10/CMP.11, the review of the report to facilitate the calculation of the assigned amount for Denmark has been undertaken together with the review of the inventory submission for the first year of the second commitment period.⁴ Table 3 contains additional information, if any, to support the ERT's assessment included in table 2 above of the Party's capacity to account for its emissions and the assigned amount, specifically related to: the calculation of the assigned amount for the second commitment period and any adjustments applied; information related to Article 3, paragraph 7 ter, as contained in the Doha Amendment; information related to reporting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol; calculation of the commitment period reserve; and the national system and national registry.

⁴ The annual review report on the 2016 inventory submission of Denmark is available at <<http://unfccc.int/resource/docs/2017/arr/dnk.pdf>>, while the annual review report on the 2015 inventory submission of Denmark is available at <<http://unfccc.int/resource/docs/2016/arr/dnk.pdf>>.

Table 3

Additional findings of the expert review team, if any, related to Denmark's reporting of mandatory elements in its report to facilitate the calculation of the assigned amount

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
1.	Calculation of the assigned amount	<p>The assigned amount submitted by the Party in its report to facilitate the calculation of the assigned amount was calculated in accordance with Article 3, paragraphs 7 bis, 8 and 8 bis, of the Kyoto Protocol, the annex to decision 13/CMP.1 and annex I to decision 3/CMP.11</p> <p>LULUCF was a net source of GHG emissions in 1990 for Denmark. Therefore, in accordance with decision 13/CMP.1 in conjunction with decision 3/CMP.11, total base-year emissions for the purpose of the calculation of the assigned amount under the Kyoto Protocol include GHG emissions from conversion of forests (deforestation). In its original submission, Denmark reported emissions from conversion of forests (deforestation) for the base year as 6 583 t CO₂ eq, while it reports in table 4(KP) 8 070 t CO₂ eq. Denmark provided additional information to the ERT in response to the list of potential problems and further questions raised by the ERT (see ID#KL.7 in document FCCC/ARR/2016/DNK), and the Party submitted revised estimates on 14 November 2016, which affected the estimated base-year emissions from conversion of forests (deforestation). The revised estimate of the base-year emissions from conversion of forests is 8 807 t CO₂ eq. The ERT agreed with the revised estimate and the emissions were included in the calculation of the assigned amount</p> <p>The ERT notes that the European Union, its member States and Iceland stated that they will fulfil their reduction targets under the second commitment period jointly.^a The joint assigned amount for the European Union, its member States and Iceland is calculated pursuant to the quantified emission limitation or reduction commitment listed in the third column of the table contained in Annex B to the Kyoto Protocol, while the assigned amount of each member State is determined in accordance with the terms of the joint fulfilment agreement. Specifically, the assigned amount for Denmark is fixed based on Annex II to European Commission decision 2013/162/EU and as adjusted by Commission implementing decision 2013/634/EU^b</p> <p>The ERT concludes that the assigned amount reported by Denmark is in accordance with the joint fulfilment agreement of the European Union, its member States and Iceland</p> <p>In its original submission, Denmark reported base-year emissions to be 70 979 816 t CO₂ eq. In response to the list of potential problems and further questions raised by the ERT (see document FCCC/ARR/2016/DNK), the Party submitted revised estimates, which affected the estimate of base-year emissions. The ERT invites Denmark to communicate the revised base-year emissions to the European Union, including emissions from conversion of forests (deforestation), with a view to them being considered in the calculation of the joint assigned amount of the European Union, its member States and Iceland</p>	Not a problem
2.	Calculation of the commitment	<p>The commitment period reserve was calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1 and decision</p>	Not a problem

ID#	Finding classification	Description of the finding	Classification of problem
	period reserve	1/CMP.8, paragraph 18	
3.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	The ERT noted that the Party did not provide information on the application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13, related to the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF. During the review, the Party indicated that by mistake this information was not included in the initial report. The following information should have been included: with the base-year emissions amounting to 70 973 233 t CO ₂ eq in the annual GHG inventory report submitted in conjunction with the initial report (i.e. before application of Article 3, paragraph 7 bis), the quantity amounting to 3.5% of the base-year GHG emissions excluding LULUCF is 2 484 063 t CO ₂ eq. When this amount (before rounding) is multiplied by the duration of the second commitment period in years (eight) (decision 2/CMP.7, annex, paragraph 13), the maximum accountable quantity resulting from forest management that can be added to Denmark's assigned amount is 19 872 505 RMUs. The ERT notes that the estimated base-year emissions changed in response to the list of potential problems and further questions raised by the ERT. The revised estimate of base-year emissions equals 70 793 103 t CO ₂ eq, resulting in a revised forest management cap of 19 822 068 t CO ₂ eq for the duration of the second commitment period	Not a problem
4.	Reporting pursuant to Article 3.7 ter of the Doha Amendment	The ERT noted that the Party did not provide information in accordance with Article 3, paragraph 7 ter, of the Doha Amendment; specifically, the Party reported neither the difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the preceding commitment period, multiplied by eight, nor the approach used to calculate average annual emissions for the first three years of the first commitment period. During the review, the Party indicated that by mistake this information was not included in the initial report. The following information should have been included: in line with the terms of the joint fulfilment of the European Union, its member States and Iceland under Article 3 of the Kyoto Protocol, Article 3, paragraph 7 ter, is applied to the joint assigned amount for the second commitment period. Further information on the calculation of the joint difference for the European Union and Iceland is contained in the European Union's initial report submitted by the European Commission. The ERT noted that, in its report, the European Union included the value for the difference between the joint assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period for the member States and Iceland, multiplied by eight. The report of the European Union also clarifies that the approach used to calculate average annual emissions for the first three years of the first commitment period is including the gases and sources listed in Annex A to the Kyoto Protocol	Not a problem
5.	National registry	The ERT noted that, in the report to facilitate the calculation of the assigned amount, the Party did not provide information on the application of decision 1/CMP.8, paragraphs 23–26, related to carry-over and the PPSR account. During the review, the Party indicated that the PPSR account had not yet been opened in the Danish registry and that it would be established after the new version of the registry software is available in October 2016. Further,	Not a problem

ID#	Finding classification	Description of the finding	Classification of problem
6.	Adjustments	Denmark clarified that no carry-over has taken place nor is expected to, owing to the request of Denmark for zero units to be carried over from the first to the second commitment period of the Kyoto Protocol The ERT has not identified the need to apply any adjustments to the estimate for the assigned amount for the second commitment period as reported by Denmark in its report to facilitate the calculation of the assigned amount	Not a problem

Abbreviations: ERT = expert review team, GHG = greenhouse gas, KP-LULUCF = LULUCF emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, LULUCF = land use, land-use change and forestry, PPSR = previous period surplus reserve, RMU = removal unit.

^a The report to facilitate the calculation of the assigned amount for the European Union is available at <http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/second_commitment_period_2013-2020/items/9499.php>.

^b At the time of publication of this report, the European Union had not yet submitted its instrument of ratification of the Doha Amendment or information on the joint implementation of such an amendment.

IV. Questions of implementation

5. No questions of implementation were identified by the ERT during the review.

Annex I

Key relevant data for Denmark

1. Table 4 provides key data and parameters for, and elections by, Denmark, relevant for the implementation of the second commitment period of the Kyoto Protocol. The information included in table 4 is as given by the Party in its report to facilitate the calculation of the assigned amount, unless otherwise specified.

Table 4

Key relevant data for Denmark^a

<i>Key information or parameter provided</i>	<i>Comment</i>
<i>General Party information</i>	
Did the Party have a QELRC in the first commitment period?	Yes
Denmark's QELRC in the second commitment period	Denmark will implement its reduction target under the second commitment period jointly with the European Union, its member States and Iceland as described in ID#1, table 3. The QELRC for the European Union, its member States and Iceland is 80% of the base-year emissions
Has the Party reached an agreement under Article 4 of the Kyoto Protocol to fulfil its commitments jointly with other Parties?	Yes
Base year	1990
Base year for HFCs, PFCs and SF ₆	1995
Base year for NF ₃	1995
Base-year emissions, as reported by the Party	70 979 816 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation)
Base-year emissions, final, as calculated by the ERT and agreed by the Party*	70 801 910 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation)
<i>Information related to the calculation of the assigned amount and the commitment period reserve</i>	
Assigned amount, as reported by the Party	269 363 657 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation)
Assigned amount, final, as calculated by the ERT*	269 377 890 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation)
Approach used to calculate the average annual emissions for the first three years of the first commitment period	This difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the

<i>Key information or parameter provided</i>	<i>Comment</i>
	Kyoto Protocol
Difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period, multiplied by eight, as reported by the Party, and agreed by the ERT*	Not reported in the original submission. During the review, Denmark clarified that this difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the Kyoto Protocol (see ID#4 in table 3)
Commitment period reserve, as reported by the Party and agreed by the ERT	242 427 291 t CO ₂ eq
Commitment period reserve, final value, as calculated by the ERT*	242 440 102 t CO ₂ eq
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>	
LULUCF parameters	Minimum tree crown cover: 10% Minimum land area: 0.5 ha Minimum tree height: 5 m
Elections under Article 3, paragraphs 3 and 4, of the Kyoto Protocol:	
(a) Afforestation/reforestation	Annual accounting
(b) Deforestation	Annual accounting
(c) Forest management	Annual accounting
(d) Cropland management	Elected. Annual accounting
(e) Grazing land management	Elected. Annual accounting
(f) Revegetation	Not elected
(g) Wetland drainage and rewetting	Not elected
FMRL	0.409 Mt CO ₂ eq/year
Technical corrections to the FMRL, as reported in the original submission and agreed by the ERT	-0.08262 Mt CO ₂ eq/year
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, as reported by the Party	2 484.063 kt CO ₂ eq per year (see ID#3 in table 3)
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, final value, as agreed by the ERT	2 477.758 kt CO ₂ eq per year
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions,	19 872.505 kt CO ₂ eq

Key information or parameter provided	Comment
multiplied by eight, as reported by the Party	
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by eight, final value, as agreed by the ERT	19 822.068 kt CO ₂ eq
Will the Party exclude emissions from natural disturbances in accounting for:	
(a) Afforestation and reforestation	No
(b) Forest management	No

Abbreviations: ERT = expert review team, FMRL = forest management reference level, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, QELRC = quantified emission limitation or reduction commitment.

^a An asterisk is included next to the “Key information or parameter” in all cases where the information was not submitted by the Party in its report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, because the Party had already submitted this information in the report to facilitate the calculation of the assigned amount for the first commitment period of the Kyoto Protocol.

2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals, as submitted by Denmark. Where a Party has decided to voluntarily report indirect carbon dioxide emissions, this is noted in the relevant table.

Table 5
Total greenhouse gas emissions for Denmark (mainland), base year–2014^{a, b}
 (kt CO₂ eq)

	Total GHG emissions excluding indirect CO ₂ emissions		Total GHG emissions including indirect CO ₂ emissions ^c		Land-use change (Article 3.7 bis as contained in the Doha Amendment) ^d
	Total including LULUCF	Total excluding LULUCF	Total including LULUCF	Total excluding LULUCF	
Base year	76 733.05	69 568.45	77 957.70	70 793.10	8.807
1990	76 430.97	69 266.37	77 655.63	70 491.02	
1995	82 271.46	77 312.35	83 414.51	78 455.40	
2000	74 694.20	70 056.55	75 571.24	70 933.59	
2010	64 336.20	62 919.42	64 892.03	63 475.25	
2011	56 842.83	57 744.40	57 346.95	58 248.52	
2012	54 480.32	52 861.68	54 954.76	53 336.12	
2013	57 183.20	54 907.02	57 633.91	55 357.72	
2014	51 971.27	50 636.96	52 392.65	51 058.34	

Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a “Base year” refers to the base year under the Kyoto Protocol, which is 1990 for CO₂, CH₄ and N₂O and 1995 for HFCs, PFCs, SF₆ and NF₃.

^b Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions.

^c The Party has reported indirect CO₂ emissions in common reporting format table 6.

^d The value reported in this column refers to 1990.

Table 6

Greenhouse gas emissions by gas for Denmark (mainland), excluding land use, land-use change and forestry, 1990–2014^a(kt CO₂ eq)

	<i>CO₂^b</i>	<i>CH₄</i>	<i>N₂O</i>	<i>HFCs</i>	<i>PFCs</i>	<i>Unspecified mix of HFCs and PFCs</i>	<i>SF₆</i>	<i>NF₃</i>
1990	54 785.16	7 864.43	7 799.03	NA, NO	NA, NO	NA, NO	42.41	NA, NO
1995	62 731.02	8 306.14	7 073.75	241.46	0.63	NA, NO	102.40	NA, NO
2000	55 155.96	8 163.02	6 832.43	703.54	22.57	NA, NO	56.07	NA, NO
2010	49 722.42	7 624.04	5 123.94	950.42	18.67	NA, NO	35.76	NA, NO
2011	44 671.41	7 485.08	5 120.41	886.47	15.76	NA, NO	69.39	NA, NO
2012	40 121.55	7 328.24	4 961.05	801.04	12.25	NA, NO	112.00	NA, NO
2013	42 081.32	7 252.09	5 101.88	780.95	10.90	NA, NO	130.58	NA, NO
2014	37 926.55	7 217.44	5 071.65	701.67	8.66	NA, NO	132.37	NA, NO
Per cent change 1990–2014	–30.8	–8.2	–35.0	NA	NA	NA	212.1	NA

Abbreviations: NA = not applicable, NO = not occurring.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b CO₂ emissions include indirect CO₂ emissions reported in common reporting format table 6.

Table 7

Greenhouse gas emissions by sector for Denmark (mainland), 1990–2014^{a, b}(kt CO₂ eq)

	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other</i>
1990	53 570.15	2 369.97	12 784.06	7 164.60	1 766.84	NO
1995	61 678.90	2 905.81	12 265.48	4 959.11	1 605.20	NO
2000	54 372.06	3 660.03	11 376.87	4 637.66	1 524.63	NO
2010	49 654.70	2 041.32	10 606.07	1 416.78	1 173.17	NO
2011	44 280.73	2 182.15	10 568.12	-901.57	1 217.52	NO
2012	39 578.76	2 130.04	10 468.84	1 618.64	1 158.48	NO
2013	41 442.94	2 141.57	10 559.53	2 276.19	1 213.69	NO
2014	37 195.98	2 079.26	10 569.88	1 334.31	1 213.22	NO
Per cent change 1990–2014	-30.6	-12.3	-17.3	-81.4	-31.3	NA

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable, NO = not occurring.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b Totals do include indirect CO₂ emissions reported in common reporting format table 6.

Annex II

Documents and information used during the review

A. Reference documents

“Guidelines for national systems for the estimation of anthropogenic greenhouse gas emissions by sources and removals by sinks under Article 5, paragraph 1, of the Kyoto Protocol”. Annex to decision 19/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=14>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex to decision 15/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf>.

“Guidelines for review under Article 8 of the Kyoto Protocol”. Annex to decision 22/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=51>.

“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 I to decision 24/CP.19. Available at <http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf#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 13/CP.20. Available at <http://unfccc.int/resource/docs/2014/cop20/eng/10a03.pdf#page=6>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part I: Implications related to accounting and reporting and other related issues”. Decision 3/CMP.11. Available at <http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=5>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part II: Implications related to review and adjustments and other related issues”. Decision 4/CMP.11. Available at <http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=30>.

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Intergovernmental Panel on Climate Change. 2014. *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*. Available at <http://www.ipcc-nggip.iges.or.jp/public/kpsg>.

Intergovernmental Panel on Climate Change. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. Available at <http://www.ipcc-nggip.iges.or.jp/public/wetlands/index.html>.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Ole-Kenneth Nielsen (Department of Environmental Science, Aarhus University), including additional material on the methodology and assumptions used. The following documents¹ were also provided by Denmark:

Nord-Larsen, T, Schou E, Suadicani, K, Riis-Nielsen, T, Johannsen, VK. “Projections of carbon stocks and emissions from forests 2015-2035” IGN Note, September 2016

Schou, E., Suadicani, K., & Johannsen, V. K. (2015). Carbon Sequestration in Harvested Wood Products (HWP): Data for 2013-Reporting to the UNFCCC, Final Draft. Institute for Geovidenskab og Naturforvaltning, Københavns Universitet. (IGN Rapport)

¹ Reproduced as received from the Party.

Annex III

Acronyms and abbreviations

CH ₄	methane
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
ERT	expert review team
FMRL	forest management reference level
GHG	greenhouse gas
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
KP-LULUCF	LULUCF emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol
kt	kilotonne
LULUCF	land use, land-use change and forestry
NA	not applicable
NF ₃	nitrogen trifluoride
NO	not occurring
N ₂ O	nitrous oxide
PFC	perfluorocarbon
QELRC	quantified emission limitation or reduction commitment
RMU	removal unit
SF ₆	sulphur hexafluoride
UNFCCC	United Nations Framework Convention on Climate Change