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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 Germany

Note by the expert review team

Summary

According to decision 2/CMP.8, each Party with a quantified emission limitation and reduction commitment inscribed in the third column of Annex B to the Kyoto Protocol, as contained in annex I 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 19 to 24 September in Dessau, Germany.

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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 Germany 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 19 to 24 September 2016 in Dessau, Germany, and was coordinated by Ms. Lisa Hanle and Ms. Jenny Wong (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of Germany.

2. A draft version of this report was communicated to the Government of Germany, 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 Germany

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Mr. Tomas Gustafsson	Sweden
Energy	Mr. Hongwei Yang	China
IPPU	Mr. Menouer Boughedaoui	Algeria
Agriculture	Ms. Baasansuren Jamsranjav	Mongolia
LULUCF	Ms. Marina Vitullo	Italy
Waste	Mr. Mark Hunstone	Australia
Lead reviewers	Mr. Tomas Gustafsson	
	Ms. Baasansuren Jamsranjav	

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 Germany in its report to facilitate the calculation of the assigned amount. Key data and elections by the Party are included in table 4.

¹ At the time of publication of this report, Germany had not yet submitted its instrument of ratification of the Doha Amendment, and the amendment had not yet entered into force. The implementation of the provisions of the Doha Amendment is therefore considered in this report in the context of decision 1/CMP.8, paragraph 6, pending the entry into force of the amendment.

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

Table 2

Expert review team's assessment of the reporting of mandatory elements by Germany 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?	Yes	For further information, see document FCCC/ARR/2016/DEU
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 Kyoto Protocol, Article 4, agreement in relation to the following:		
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#6 in table 3
Calculation of base-year emissions	Yes	See annex I, table 4. For further information, see ID#1 in table 3
Calculation of the assigned amount	Yes	See annex I, table 4. For further information, see ID#1 in table 3
Calculation of the commitment period reserve	Yes	See annex I, table 4. For further information, see ID#2 in table 3
Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	Yes	For further information, see ID#4 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
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 8?	Yes	See annex I, table 4. For further information, see ID#5 in table 3

<i>Item</i>		<i>Comment</i>
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?	Yes	See annex I, table 4. For further information, see ID#5 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?	No	
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. For further information, see ID#2 in table 3
<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	See annex I, table 4
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. For further information, see ID#3 in table 3
Has the Party reported the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF, in the original submission?	Yes	See annex I, table 4. For further information, see ID#4 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 accordance with decision 2/CMP.7, annex, paragraph 33?	Yes	See annex I, table 4
<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

<i>Item</i>		<i>Comment</i>
		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, ERT = expert review team, 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 Intergovernmental Panel on Climate Change *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 Germany has been undertaken together with the review of the inventory submission for the first year of the second commitment period, 2015 and 2016.³ 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.

³ The annual review report on the 2016 inventory submission of Germany is available at <http://unfccc.int/resource/docs/2017/arr/deu.pdf>, while the annual review report on the 2015 inventory submission of Germany is available at <http://unfccc.int/resource/docs/2016/arr/deu.pdf>.

Table 3

Additional findings of the expert review team, if any, related to Germany'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>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 and 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 Germany is fixed based on annex II to 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 Germany is in accordance with the joint fulfilment agreement by the European Union, its member States and Iceland</p> <p>In the original submission, Germany reported base-year emissions to be 1 249 872 163 t CO₂ eq. However, during the review, the ERT calculated the base-year emissions to be 1 249 845 614 t CO₂ eq. In response to the list of potential problems and further questions raised by the ERT (see document FCCC/ARR/2016/DEU, in particular, table 5, ID#s G.4, I.11, A.4, A.8, A.9, W.6 and W.12) Germany submitted revised estimates, which affected the base-year emissions. The revised estimates for the base-year emissions (1 253 599 336 t CO₂ eq) do not affect the assigned amount for Germany, referred to in table 4 below, because the assigned amount is determined based on the allocations in the European Union decisions referenced above, and is not calculated using the base-year emission estimates for Germany. The ERT invites Germany to communicate the revised base-year emissions to the European Union with a view to their consideration 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 period reserve	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 1/CMP.8, paragraph 18	Not a problem
3.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	The ERT noted that the FMRL value reported in the report to facilitate the calculation of the assigned amount and in Germany's CRF accounting table (–22.410 Mt CO ₂ eq/year) is different from the value included in the appendix to decision 2/CMP.7 (–22.418 Mt CO ₂ eq/year). During the review, the Party confirmed that the value to be included in Germany's CRF accounting table is –22.418 Mt CO ₂ eq/year	Not a problem

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
4.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	As noted above (see ID#1) Germany incorrectly calculated the base-year emissions in its original submission, resulting in an incorrect calculation of the forest management cap in the original submission. In addition, as described in ID#1, Germany submitted revised estimates in response to the list of potential problems and further questions raised by the ERT, which resulted in a revision of the base-year emissions to 1 253 599 336 t CO ₂ eq. As the forest management cap is calculated as 3.5% of the base-year emissions, multiplied by the duration of the commitment period, the forest management cap, as reported in the accounting CRF table, should have been revised in the submission of the revised estimates. However, Germany did not revise the forest management cap. Based on the submission of revised estimates, the ERT calculates that the revised forest management cap is equal to 351 007 813 t CO ₂ eq. During the review, in the process of communicating with the Party on the list of potential problems and further questions raised by the ERT, Germany agreed with this figure	Not a problem
5.	Reporting pursuant to Article 3, paragraph 7 ter, of the Doha Amendment	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, and as described in the report to facilitate the calculation of the assigned amount of the European Union, Article 3, paragraph 7 ter, is applied to the joint assigned amount of the European Union, its member States and Iceland for the second commitment period. In its report, the European Union includes 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 8. 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 the gases and sources listed in Annex A to the Kyoto Protocol	Not a problem
6.	National registry	Germany did not report on its PPSR in its national inventory report or in the report to facilitate the calculation of the assigned amount. The ERT notes that the 2016 standard independent assessment report for Germany notes that since the version of the European Union registry software available at the time did not include PPSR accounts, Germany had not opened such an account. Germany further noted that the functionality was planned for version 8.1 of the European Union registry, which was scheduled for release at the end of the third quarter of 2016. In response to the draft version of this report, Germany noted that since 16 November 2016 the European Union registry provides the technical possibility to open a PPSR account. However, prior to opening such an account, the PPSR account type must be first introduced into the European Union legislative framework, in accordance with the annex to Commission Delegated Regulation (EU) 2015/1844. ^c This provision, however, will become applicable, according to Article 2 of the regulation, on “the date of publication by the Commission in the <i>Official Journal of the European Union</i> of a communication on the entry into force of the Doha Amendment to the Kyoto Protocol”. Consequently, for the moment and until the Doha Amendment enters into force, Germany is not in a position to open the PPSR account in its national registry	Not a problem

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
7.	Adjustments	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 Germany in its report to facilitate the calculation of the assigned amount	Not a problem

Abbreviations: CRF = common reporting format, ERT = expert review team, FMRL = forest management reference level, LULUCF = land use, land-use change and forestry, PPSR = previous period surplus reserve.

^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 and information on the joint implementation of such an amendment.

^c <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1487843856153&uri=CELEX:32015R1844>.

IV. Questions of implementation

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

Annex I

Key relevant data for Germany

1. Table 4 provides key data and parameters for, and elections by, Germany, 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 Germany

<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
Germany's QELRC in the second commitment period	Germany 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	1 249 872 163 t CO ₂ eq
Base year emissions, final	1 253 599 336 t CO ₂ eq
<i>Information related to the calculation of the assigned amount and the commitment period reserve</i>	
Assigned amount, as reported by the Party and agreed by the ERT	3 592 699 888 t CO ₂ eq
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 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	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

<i>Key information or parameter provided</i>	<i>Comment</i>
	the gases and sources listed in Annex A to the Kyoto Protocol
Commitment period reserve, as reported by the Party and agreed by the ERT	3 233 429 900 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: 0.1 ha Minimum tree height: 5 m
Elections under Article 3, paragraphs 3 and 4, of the Kyoto Protocol:	
(i) Afforestation/reforestation	Commitment period accounting
(ii) Deforestation	Commitment period accounting
(iii) Forest management	Commitment period accounting
(iv) Cropland management	Not elected for the first commitment period, but elected for the second commitment period. Commitment period accounting
(v) Grazing land management	Not elected for the first commitment period, but elected for the second commitment period. Commitment period accounting
(vi) <i>Revegetation</i>	Not elected
(vii) Wetland drainage and rewetting	Not elected
FMRL	–22.418 Mt CO ₂ eq/year (see table 3, ID#3)
Technical corrections to the FMRL as reported in the original submission	Technical corrections not applied
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, as reported by the Party	Not reported
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, final value, as calculated by the ERT	43 875.976 kt CO ₂ eq
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by 8, as reported by the Party	349 964.205 kt CO ₂ eq
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by 8, final value	351 007.813 kt CO ₂ eq
Will the Party exclude emissions from natural disturbances in	

<i>Key information or parameter provided</i>	<i>Comment</i>
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 and reduction commitment.

2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals, as submitted by Germany. 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 Germany, base year^a–2014^b
(kt CO₂ eq)

<i>Year</i>	<i>Total GHG emissions excluding indirect CO₂ emissions</i>		<i>Total GHG emissions including indirect CO₂ emissions^c</i>		<i>Land-use change (Article 3.7 bis as contained in the Doha Amendment)^d</i>
	<i>Total including LULUCF</i>	<i>Total excluding LULUCF</i>	<i>Total including LULUCF</i>	<i>Total excluding LULUCF</i>	
Base year	1 222 319.97	1 253 599.34	1 222 319.97	1 253 599.34	NA
1990	1 218 549.29	1 249 828.65	1 218 549.29	1 249 828.65	
1995	1 087 884.38	1 120 943.90	1 087 884.38	1 120 943.90	
2000	1 005 342.14	1 043 294.43	1 005 342.14	1 043 294.43	
2010	924 715.25	941 038.69	924 715.25	941 038.69	
2011	906 162.92	921 829.74	906 162.92	921 829.74	
2012	911 863.16	926 338.36	911 863.16	926 338.36	
2013	930 833.71	945 150.95	930 833.71	945 150.95	
2014	886 787.30	901 763.94	886 787.30	901 763.94	

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

^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 not 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 Germany, excluding land use, land-use change and forestry, 1990–2014^a
(kt CO₂ eq)

<i>Year</i>	<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	1 052 238.23	119 234.77	65 188.85	50.32	3 060.23	5 705.72	4 343.64	6.88
1995	938 148.09	104 722.35	61 135.98	2 606.07	2 085.72	5 773.25	6 467.15	5.29
2000	899 284.99	87 647.83	43 274.08	5 972.05	956.32	2 077.74	4 072.50	8.92
2010	832 259.20	58 092.17	36 952.51	9 914.69	345.37	366.27	3 047.04	61.43
2011	812 483.22	56 966.47	38 347.32	10 353.26	278.51	176.68	3 163.07	61.21
2012	817 031.44	57 647.41	37 497.49	10 547.63	242.20	182.08	3 154.89	35.21
2013	835 792.63	56 975.08	38 084.92	10 569.43	258.24	193.40	3 261.20	16.03
2014	792 902.79	55 527.86	38 780.29	10 750.37	234.23	151.95	3 396.17	20.28
Per cent change 1990–2014	–24.6	–53.4	–40.5	21 264.0	–92.3	–97.3	–21.8	194.8

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

^b Germany did not report indirect CO₂ emissions in common reporting format table 6.

Table 7

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

<i>Year</i>	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other</i>
1990	1 035 683.81	96 408.35	79 770.01	–31 279.36	37 966.47	NA
1995	917 311.00	97 496.38	68 139.09	–33 059.53	37 997.44	NA
2000	869 840.27	77 133.42	67 748.02	–37 952.30	28 572.72	NA
2010	801 420.48	61 965.58	63 014.53	–16 323.44	14 638.10	NA
2011	781 217.04	62 073.82	64 705.31	–15 666.82	13 833.58	NA
2012	787 897.17	61 092.44	64 240.27	–14 475.20	13 108.48	NA
2013	806 408.27	61 009.59	65 425.01	–14 317.24	12 308.08	NA
2014	762 338.40	60 989.34	66 863.21	–14 976.64	11 572.99	NA
Per cent change						
1990–2014	–26.4	–36.7	–16.2	–52.1	–69.5	NA

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable.

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

^b Germany did not report indirect CO₂ emissions 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>.

“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>.

“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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B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Michael Strogies (Federal Environment Agency), including additional material on the methodology and assumptions used.

Annex III

Acronyms and abbreviations

CH ₄	methane
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
CRF	common reporting format
ERT	expert review team
FMRL	forest management reference level
GHG	greenhouse gas
ha	hectare
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
kt	kilotonne
LULUCF	land use, land-use change and forestry
m	metre
Mt	million tonnes
NA	not applicable
NF ₃	nitrogen trifluoride
N ₂ O	nitrous oxide
PFC	perfluorocarbon
PPSR	previous period surplus reserve
QELRC	quantified emission limitation and reduction commitment
SF ₆	sulphur hexafluoride
t	tonne (1 t = 1,000 kg)
UNFCCC	United Nations Framework Convention on Climate Change