



United Nations

FCCC/IRR/2016/CZE



Framework Convention on
Climate Change

Distr.: General
31 August 2017

English only

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 Czechia

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 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, 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 29 August to 3 September 2016 in Bonn, Germany.

GE.17-15210(E)



* 1 7 1 5 2 1 0 *

Please recycle 



Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction	1–2	3
II. Summary of the reporting on mandatory elements in the report to facilitate the calculation of the assigned amount	3	4
III. Technical assessment of the elements reviewed.....	4	6
IV. Questions of implementation	5	9
 Annexes		
I. Key relevant data for Czechia		10
II. Documents and information used during the review		15
III. Acronyms and abbreviations		17

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 Czechia 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 29 August to 3 September 2016 in Bonn, Germany, and was coordinated by Mr. Tomoyuki Aizawa (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of Czechia.

2. A draft version of this report was communicated to the Government of Czechia, which provided no comments.

Table 1

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

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Mr. Christopher John Dore	United Kingdom of Great Britain and Northern Ireland
	Ms. Kristina Saarinen	Finland
Energy	Ms. Tahira Munir	Pakistan
	Mr. Peter Seizov	Bulgaria
	Ms. Nina Uvarova	Russian Federation
IPPU	Ms. Pia-Kristiina Forsell	Finland
	Mr. Andrew Neal	New Zealand
Agriculture	Ms. Marci Baranski	United States of America
	Mr. Abdulkadir Bektas	Turkey
	Mr. Paulo Cornejo Guajardo	Chile
	Mr. Pa Ousman Jarju	Gambia
LULUCF	Mr. Rizaldi Boer	Indonesia
	Mr. Johannes Brötz	Germany
	Ms. Oksana Butrym	Ukraine
	Ms. Naoko Tsukada	Japan
Waste	Mr. Seungdo Kim	Republic of Korea
	Ms. Mayra Rocha	Brazil
Lead reviewers	Ms. Mayra Rocha	
	Ms. Kristina Saarinen	

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

¹ At the time of publication of this report, Czechia 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.

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 assessment of the reporting of mandatory elements by Czechia in its report to facilitate the calculation of the assigned amount. Key data and elections by the Party are included in table 4.

Table 2

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

<i>Item</i>		<i>Comment</i>
<i>General Party information</i>		
Dates of submission		Original submission: 15 June 2016 Revised submission: 9 August 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	See document FCCC/ARR/2016/CZE, annex III
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#6 in table 3
(b) Calculation of base-year emissions	Yes	See annex I, table 4. For further information, see ID#2 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#3 in table 3
(e) Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	Yes	For further information, see ID#4 in table 3

<i>Item</i>		<i>Comment</i>
<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 eight?	Yes	See annex I, table 4. For further information, see ID#5 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?	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?	No	See annex I, table 4. For further information, see ID#3 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?	NA	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?	NA	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,	Yes	See annex I, table 4

<i>Item</i>		<i>Comment</i>
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?		
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#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 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 Intergovernmental Panel on Climate Change (IPCC) *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 Czechia has been undertaken together with the review of the inventory submission for

the first year of the second commitment period.³ Table 3 contains additional information, if any, to support the ERT assessment included in table 2 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.

Table 3

Additional findings of the expert review team, if any, related to Czechia'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 August 2016 in its report to facilitate the calculation of the assigned amount (520 515 203 t CO₂ eq) 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 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 Czechia 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 Czechia is in accordance with the joint fulfilment agreement of the European Union, its member States and Iceland</p>	Not a problem
2.	Calculation of the assigned amount	<p>Czechia did not report base-year emissions in its original submission of the report to facilitate the calculation of the assigned amount</p> <p>During the review, the ERT identified that there were overestimations of emissions in the base-year estimates and included those issues in the list of potential problems and further questions raised by the ERT (see document FCCC/ARR/2016/CZE, ID#s E.11, E.12, E.13, E.14, E.15, E.16, E.18, E.19, I.14, A.26, A.27, A.28, A.29 and W.10). In response to that list, the Party submitted revised estimates on 20 October 2016 and 12 April 2017 for the base-year emissions. The revised estimate for the base-year emissions (198 316 406 t CO₂ eq) does not affect the assigned amount for Czechia, referred to in table 4, because the assigned amount is determined on the basis of the allocations in the European Union decisions referenced above, and is not calculated using the base-year emission estimates for Czechia.</p>	Not a problem

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

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
		The ERT invites Czechia to communicate the revised estimate of base-year emissions to the European Union, with a view to it being considered in the calculation of the joint assigned amount of the European Union, its member States and Iceland	
3.	Calculation of the commitment period reserve	<p>The commitment period reserve as reported in its report to facilitate the calculation of the assigned amount (submitted in August 2016) was not 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</p> <p>The Party reported its commitment period reserve as 495 463 683 t CO₂ eq, based on the assigned amount. However, during the review, the ERT identified that there was a calculation error that led to incorrect calculation of the commitment period reserve. The ERT agrees that the calculation is based on the assigned amount, but disagrees with the result reported by Czechia. Owing to the calculation error, the ERT recalculated the commitment period reserve and determined it to be 468 463 683 t CO₂ eq (see document FCCE/ARR/2016/CZE, ID#G.15)</p>	Not a problem
4.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>In its report to facilitate the calculation of the assigned amount, the Party did not provide information relating to the application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13. In response to a question raised by the ERT during the review, the Party provided information that first presented 3.5% of the base-year GHG emissions excluding LULUCF and including indirect CO₂ emissions, and then showed that the additions resulting from forest management under Article 3, paragraph 4, and from forest management project activities undertaken under Article 6 do not exceed eight times 3.5% of the base-year GHG emissions excluding LULUCF</p> <p>After the submission of revised inventory estimates on 12 April 2017, Czechia provided a revised value for 3.5% of the base-year emissions multiplied by the duration of the commitment period (55 527 286 t CO₂ eq). The ERT found that this is not correct and recalculated it as 55 528 593 t CO₂ eq based on the CRF tables submitted in April 2017</p>	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 agreement 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, of the Kyoto Protocol 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 its 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 includes the gases and sources listed in Annex A to the Kyoto Protocol	Not a problem
6.	National registry	In its report to facilitate the calculation of the assigned amount, the Party did not provide information on the previous period surplus reserve account in its national registry. In response to a question raised by the ERT, during	Not a problem

<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
		the review the Party explained that the previous period surplus reserve account relating to the second commitment period will be established in the Czech national registry before the end of 2016 with the next release of the registry software	
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 reported by Czechia in its report to facilitate the calculation of the assigned amount	Not a problem

Abbreviations: ERT = expert review team, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^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 Czechia

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

<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
Czechia's QELRC in the second commitment period	Czechia will implement its reduction target under the second commitment period jointly with the European Union, its member States and Iceland as described in ID#2, 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	The Party has not provided this value in its report to facilitate the calculation of the assigned amount for the second commitment period
Base-year emissions, final, as calculated by the ERT and agreed by the Party	198 316 406 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	520 515 203 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	This difference is calculated on the basis of the

<i>Key information or parameter provided</i>	<i>Comment</i>
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	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
Commitment period reserve, as reported by the Party	495 463 683 t CO ₂ eq
Commitment period reserve, final value, as calculated by the ERT and agreed by the Party	468 463 683 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: 30% Minimum land area: 0.05 ha Minimum tree height: 2 m
Elections under Article 3, paragraphs 3 and 4, of the Kyoto Protocol:	
(a) Afforestation/reforestation	Commitment period accounting
(b) Deforestation	Commitment period accounting
(c) Forest management	Commitment period accounting
(d) Cropland management	Not elected
(e) Grazing land management	Not elected
(f) Revegetation	Not elected
(g) Wetland drainage and rewetting	Not elected
FMRL	-4.686 Mt CO ₂ eq/year
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 in the original submission
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, final value, as calculated by the ERT	6 941 074 t CO ₂ eq
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by eight, as reported by the Party in the original submission	Not reported in the original submission
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by eight, final value, as calculated by the ERT	55 528 593 t CO ₂ eq

<i>Key information or parameter provided</i>	<i>Comment</i>
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.

2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals, as submitted by Czechia. 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 Czechia, 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	189 736.07	196 204.09	191 848.38	198 316.40	NA
1990	189 731.40	196 199.42	191 843.71	198 311.74	
1995	147 372.93	155 403.35	149 093.62	157 124.04	
2000	139 594.02	148 382.14	140 722.85	149 510.97	
2010	130 854.24	138 031.29	131 776.78	138 953.82	
2011	128 394.61	136 772.65	129 339.54	137 717.57	
2012	124 090.86	132 634.00	125 004.52	133 547.66	
2013	120 800.87	128 717.21	121 614.83	129 531.17	
2014	116 209.41	124 002.08	116 996.87	124 789.55	

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 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 Czechia, 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	163 761.84	23 315.24	11 149.44	NO	NO	NO, NE, IE	85.22	NO
1995	131 456.78	17 745.43	7 831.94	0.23	0.01	NO, NE, IE	89.65	NO
2000	126 901.90	14 897.92	7 394.10	203.99	3.95	NO, NE, IE	109.13	NO
2010	116 599.36	13 994.05	6 282.10	1 947.71	49.32	NO, NE, IE	81.29	NO
2011	114 936.07	14 018.71	6 446.54	2 219.11	10.72	NO, NE, IE	86.43	NO
2012	110 629.27	14 087.84	6 333.94	2 395.39	8.74	NO, NE, IE	90.68	1.80
2013	107 164.49	13 437.02	6 204.67	2 621.18	6.61	NO, NE, IE	93.38	3.82
2014	101 817.79	13 493.54	6 544.12	2 830.38	5.34	NO, NE, IE	96.01	2.35
Per cent change 1990–2014	–37.8	–42.1	–41.3	NA	NA	NA	12.7	NA

Abbreviations: IE = included elsewhere, NA = not applicable, NE = not estimated, 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 Czechia, 1990–2014^{a, b}
 (kt CO₂eq)

<i>Year</i>	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other</i>
1990	159 765.27	17 828.45	17 588.26	–6 468.02	3 129.76	NO
1995	128 288.99	14 822.07	10 649.01	–8 030.42	3 363.96	NO
2000	121 671.54	14 923.53	9 352.36	–8 788.12	3 563.54	NO
2010	111 794.09	14 872.90	8 011.37	–7 177.05	4 275.46	NO
2011	110 294.49	14 961.42	8 135.81	–8 378.03	4 325.86	NO
2012	106 116.16	14 824.32	8 111.05	–8 543.14	4 496.13	NO
2013	101 746.77	14 840.97	8 182.62	–7 916.34	4 760.81	NO
2014	95 981.48	15 514.78	8 490.74	–7 792.68	4 802.55	NO
Per cent change 1990–2014	–39.9	–13.0	–51.7	20.5	53.4	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 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>.

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

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 Ms. Eva Krtková (Czech Hydrometeorological Institute), 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
ERT	expert review team
FMRL	forest management reference level
GHG	greenhouse gas
HFC	hydrofluorocarbon
IE	included elsewhere
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
kt	kilotonne
LULUCF	land use, land-use change and forestry
NA	not applicable
NE	not estimated
NF ₃	nitrogen trifluoride
NO	not occurring
N ₂ O	nitrous oxide
PFC	perfluorocarbon
QELRC	quantified emission limitation or reduction commitment
SF ₆	sulphur hexafluoride
UNFCCC	United Nations Framework Convention on Climate Change
