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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 the Netherlands**

**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, 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 2016 in Bonn, Germany.

GE.17-10286(E)



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## I. Introduction<sup>1</sup>

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 the Netherlands was organized by the UNFCCC secretariat, in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”.<sup>2</sup> The review took place from 19 to 24 September 2016 in Bonn, Germany, and was coordinated by Ms. Kyoko Miwa (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of the Netherlands.

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

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Mr. Mikhail Gitarskiy	Russian Federation
	Ms. Batima Punsalmaa	Mongolia
Energy	Mr. Christo Christov	Bulgaria
	Mr. Amit Garg	India
	Ms. Brooke Elizabeth Perkins	Australia
IPPU	Mr. Samir Tantawi	Egypt
	Mr. David Glen Thistlethwaite	United Kingdom of Great Britain and Northern Ireland
Agriculture	Ms. Oksana Butrym	Ukraine
	Ms. Hongmin Dong	China
	Mr. Fredrick Kossam	Malawi
LULUCF	Ms. Rehab Ahmed Hassan	Sudan
	Ms. Esther Mertens	Belgium
	Mr. Koki Okawa	Japan
	Mr. Lucio Santos	Colombia
Waste	Mr. Pavel Gavrilita	Republic of Moldova
	Mr. Hiroyuki Ueda	Japan
Lead reviewers	Mr. Mikhail Gitarskiy	

<sup>1</sup> At the time of publication of this report, the Netherlands 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.

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

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
	Ms. Batima Punsalmaa	

*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 the Netherlands 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 the Netherlands 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: 8 September 2016
Are there any missing categories or issues related to completeness <sup>a</sup> 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/NLD
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 <sub>3</sub> ?	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	No	For further information, see ID#9 in table 3
(b) Calculation of base-year emissions	No	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

<i>Item</i>		<i>Comment</i>
(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#6 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?	No	See annex I, table 4. For further information, see ID#8 in table 3
Has the Party indicated in the original submission the approach <sup>b</sup> used to calculate average annual emissions for the first three years of the first commitment period?	Yes	For further information, see ID#8 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	See annex I, table 4. For further information, see ID#1 in table 3
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, 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?	NA	
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?	No	For further information, see ID#3 in table 3
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	Yes	See annex I, table 4. For

<i>Item</i>		<i>Comment</i>
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?		further information, see ID#5 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?	No	See annex I, table 4. For further information, see ID#6 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. For further information, see ID#7 in table 3
<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.

<sup>a</sup> 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.

<sup>b</sup> 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 the Netherlands has been undertaken together with the review of the inventory

submission for the first year of the second commitment period.<sup>3</sup> 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.

Table 3

**Additional findings of the expert review team, if any, related to the Netherlands' 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.<sup>a</sup> 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 the Netherlands is fixed based on annex II to European Commission decision 2013/162/EU and as adjusted by Commission implementing decision 2013/634/EU<sup>b</sup></p> <p>LULUCF is a net source of GHG emissions in 1990 for the Netherlands (6 081 030 t CO<sub>2</sub> eq). 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, the Netherlands reported net emissions in relation to deforestation in 1990 as 752 270 t CO<sub>2</sub> eq. The ERT agreed with this estimate and these emissions were included in the calculation of the assigned amount</p> <p>In the original submission, the Netherlands did not report base-year emissions in its report to facilitate the calculation of the assigned amount. Instead, the Party provided the emission level for the second commitment period of the Kyoto Protocol before the application of Article 3, paragraph 7 bis (see above), 919 963 374 t CO<sub>2</sub> eq, in relation to the information on its assigned amount. During the review, the ERT calculated the base-year emissions (before the application of Article 3, para. 7 bis) to be 223 818 012</p>	Not a problem

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

ID#	Finding classification	Description of the finding	Classification of problem
		<p>t CO<sub>2</sub> eq</p> <p>However, during the review, the ERT identified that there was an overestimation of emissions in the base-year estimates for CH<sub>4</sub> emissions from solid waste disposal on land, which was not resolved during the review, and therefore included this issue in the list of potential problems and further questions raised by the ERT. In response to this list, the Party indicated its agreement with the ERT's recommendation and submitted revised estimates on 7 February 2017 for the base-year emissions (see document FCCC/ARR/2016/NLD, table 5, ID#W.9). The ERT agrees with the Party's revised estimation</p> <p>The revised estimates for the base-year emissions before the application of Article 3, paragraph 7 bis (223 198 399 t CO<sub>2</sub> eq) do not affect the assigned amount for the Netherlands, referred to in table 4, because the assigned amount is determined based on the allocations in the European Union decisions referred to above, and is not calculated using the base-year emission estimates for the Netherlands</p> <p>The ERT concludes that the assigned amount reported by the Netherlands is in accordance with the joint fulfilment agreement by the European Union, its member States and Iceland</p> <p>The ERT invites the Netherlands to communicate the revised base-year emissions to the European Union with a view to their being considered in the calculation of the joint assigned amount of the European Union, its member States and Iceland</p>	
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 Netherlands did not provide the information in its initial report and in the NIR on how, under Article 5, paragraph 1, of the Kyoto Protocol the national system will identify land areas associated with 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. In response to the question raised by the ERT during the review, the Party informed the ERT that it applies a complete and spatially explicit wall-to-wall land-use mapping. Afforestation, reforestation, deforestation and forest management activities are recorded on a pixel basis. The status of each pixel is monitored over the full time series	Transparency
4.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	The Netherlands reported its FMRL in the report to facilitate the calculation of the assigned amount both by using the instantaneous oxidation for HWP (-1.464 Mt CO <sub>2</sub> eq) and by applying the first-order decay function for HWP (-1.425 Mt CO <sub>2</sub> eq). The information on HWP, including the information on how the emissions from the HWP originating from forests prior to the second commitment period were determined, are also provided in the report. The values are consistent with the values in the appendix to decision 2/CMP.7	Not a problem



<i>ID#</i>	<i>Finding classification</i>	<i>Description of the finding</i>	<i>Classification of problem</i>
5.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>The ERT noted that the report of the technical assessment of the FMRL submitted by the Netherlands in 2011 (FCCC/TAR/2011/NLD), recommended that the Netherlands ensure consistency in the use of emission factors for the construction of the FMRL and the estimation period, if different emission factors are used in the future</p> <p>The ERT further noted that the need for the technical correction of the FMRL also arises from the background level of natural disturbances, because the Party's FMRL reported in "Submission of information on forest management reference levels by the Netherlands" does not reflect historical emissions from natural disturbances</p> <p>In response to the question raised by the ERT during the review, the Netherlands explained that so far as it intends to apply the accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol at the end of the commitment period, it believes that detailed technical corrections are only due by that time. The Netherlands further informed the ERT that it is currently preparing the technical corrections, which will be reported in the future submissions before the end of the second commitment period of the Kyoto Protocol. Noting the ongoing work on the update of the technical correction for the FMRL and that the Party has selected the option of accounting for the KP-LULUCF activities at the end of the commitment period, the ERT included the issue in the annual review report of the Netherlands (see ID#KL.6 in table 5 in document FCCC/ARR/2016/NLD)</p>	Not a problem
6.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>In its original submission, the Netherlands did not report on the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF, which will be used as forest management cap. In response to a question raised by the ERT during the review, the Netherlands provided the information on the quantity amounting to 3.5% of the base-year GHG emissions, excluding LULUCF. Further, in response to the list of potential problems and further questions raised by the ERT, the Party submitted revised estimates on 7 February 2017, which decreased the base-year emissions of the Party (see also ID#1 above). Based on the revised base-year emissions, the quantity amounting to 3.5% of the base-year GHG emissions excluding LULUCF is equal to 7 811 943 t CO<sub>2</sub>eq (see also table 4 in annex I)</p>	Not a problem
7.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>The initial report does not provide sufficient country-specific information on the background level of emissions associated with annual natural disturbances that have been included in its FMRL, and does not provide the information on how the background levels have been estimated. During the review, in response to the ERT request for clarification, the Party indicated that the 2016 NIR (chapter 11.4.4) provides the information related to the types of natural disturbances to be used for the accounting of afforestation, reforestation and forest management and the time series from 1990 to 2009 to construct the background level plus margin, and also provides the methodologies to establish the background levels</p>	Not a problem
8.	Reporting pursuant to Article 3.7 ter of	<p>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 did not report the difference between the assigned amount for the</p>	Not a problem

ID#	Finding classification	Description of the finding	Classification of problem
	the Doha Amendment	<p>second commitment period and average annual emissions for the first three years of the preceding commitment period, multiplied by 8. The ERT further noted that in its initial report, and in response to the questions raised by the ERT during the review, the Netherlands explained that no specific information is required to be reported in the Party's report, because the provisions of Article 3, paragraph 7 ter, of the Doha Amendment will be subject to joint fulfilment by the European Union</p> <p>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 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 including the gases and sources listed in Annex A to the Kyoto Protocol</p>	
9.	National registry	The ERT noted that the Netherlands did not provide information on the application of decision 1/CMP.8, paragraphs 23–26, related to carry-over and the previous period surplus reserve account. In the NIR, the Netherlands did not provide information on the establishment of a PPSR account in its national registry. The ERT notes that the 2016 standard independent assessment report for the Netherlands indicates that the PPSR account is expected to be established in the next release of the consolidated registry software	Transparency
10.	Adjustments	The ERT has not identified the need to apply any adjustments to the estimates for the assigned amount for the second commitment period, as reported by the Netherlands in its report to facilitate the calculation of the assigned amount. See also ID#1 above	Not a problem

*Abbreviations:* Article 8 review guidelines = “Guidelines for review under Article 8 of the Kyoto Protocol”, CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, ERT = expert review team, FMRL = forest management reference level, GHG = greenhouse gas, HWP = harvested wood products, 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, NIR = national inventory report, PPSR = previous period surplus reserve.

<sup>a</sup> 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](http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/second_commitment_period_2013-2020/items/9499.php)>.

<sup>b</sup> 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.

#### IV. Questions of implementation

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

## Annex I

### Key relevant data for the Netherlands

1. Table 4 provides key data and parameters for, and elections by, the Netherlands, 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 the Netherlands<sup>a</sup>

<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
The Netherlands' QELRC in the second commitment period	The Netherlands 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 in table 3 of this report. 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 <sub>6</sub> *	1995
Base year for NF <sub>3</sub>	1995
Base-year emissions, as reported by the Party	Not reported in the original submission. (see ID#1 in table 3 of this report)
Base-year emissions, final, as calculated by the ERT and agreed by the Party	223 950 669 t CO <sub>2</sub> eq, including GHG emissions from conversion of forests (deforestation) of 752 270 t CO <sub>2</sub> 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	924 777 902 t CO <sub>2</sub> 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 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 8, as reported by the Party	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 and agreed by the ERT	832 300 112 t CO <sub>2</sub> eq
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>	
LULUCF parameters	Minimum tree crown cover: 20% 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	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	-1.464 Mt CO <sub>2</sub> eq/year
Technical corrections to the FMRL as reported in the original submission	Not reported in the original submission
Technical corrections to the FMRL, final value	NA (see ID#5 in table 3 of this report)
3.5% of total base-year GHG emissions, excluding LULUCF and including indirect CO <sub>2</sub> 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 <sub>2</sub> emissions, final value, as provided by the Party upon the ERT request	7 776.39 kt CO <sub>2</sub> eq
3.5% of total base-year GHG emissions, excluding LULUCF, and including indirect CO <sub>2</sub> emissions, final value, as calculated by the ERT based on the revised base-year GHG emissions	7 811.943 kt CO <sub>2</sub> eq
3.5% of total base-year GHG emissions, excluding LULUCF, and including indirect CO <sub>2</sub> emissions, multiplied by 8, as calculated by the ERT	62 495.551 kt CO <sub>2</sub> eq
Will the Party exclude emissions from natural	

<i>Key information or parameter provided</i>	<i>Comment</i>
disturbances in accounting for:	
(a) Afforestation and reforestation	Yes
(b) Forest management	Yes

*Abbreviations:* CRF = common reporting format, ERT = expert review team, FMRL = forest management reference level, GHG = greenhouse gas, LULUCF= land use, land-use change and forestry, NA = not applicable, QELRC = quantified emission limitation and reduction commitment.

<sup>a</sup> 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 or because the information was not otherwise required.

2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals, as submitted by the Netherlands. 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 the Netherlands, base year<sup>a</sup>–2014<sup>b</sup>**  
 (kt CO<sub>2</sub>eq)

Year	Total GHG emissions excluding indirect CO <sub>2</sub> emissions		Total GHG emissions including indirect CO <sub>2</sub> emissions <sup>c</sup>		Land-use change (Article 3.7 bis as contained in the Doha Amendment) <sup>d</sup>
	Total including LULUCF	Total excluding LULUCF	Total including LULUCF	Total excluding LULUCF	
Base year	228 613.12	222 532.09	229 279.43	223 198.40	752.27
1990	226 977.59	220 896.56	227 643.90	221 562.87	
1995	237 492.79	231 169.83	237 960.39	231 637.43	
2000	225 703.34	219 497.72	226 037.92	219 832.30	
2010	219 530.17	213 523.12	219 767.36	213 760.31	
2011	205 914.51	199 800.72	206 147.47	200 033.68	
2012	201 322.87	195 068.68	201 550.13	195 295.94	
2013	201 135.74	194 825.15	201 350.00	195 039.41	
2014	193 213.49	186 845.43	193 424.95	187 056.88	

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

<sup>a</sup> Base year refers to the base year under the Kyoto Protocol, which is 1990 for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, and 1995 for HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>.

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

<sup>c</sup> The Party has reported indirect CO<sub>2</sub> emissions in common reporting format table 6.

<sup>d</sup> The value reported in this column refers to 1990.

Table 6

**Greenhouse gas emissions by gas for the Netherlands, excluding land use, land-use change and forestry, 1990–2014<sup>a</sup>**(kt CO<sub>2</sub> eq)

<i>Year</i>	<i>CO<sub>2</sub><sup>b</sup></i>	<i>CH<sub>4</sub></i>	<i>N<sub>2</sub>O</i>	<i>HFCs</i>	<i>PFCs</i>	<i>Unspecified mix of HFCs and PFCs</i>	<i>SF<sub>6</sub></i>	<i>NF<sub>3</sub></i>
1990	163 163.87	32 286.61	17 636.51	5 606.33	2 662.85	NO	206.70	NO, IE
1995	173 663.89	30 194.36	17 667.76	7 570.53	2 279.92	NO	260.96	NO, IE
2000	172 394.39	24 924.29	15 638.74	4 713.27	1 902.81	NO	258.79	NO, IE
2010	182 766.98	19 991.02	8 049.92	2 484.84	313.77	NO	153.78	NO, IE
2011	170 025.10	19 508.81	7 855.25	2 244.17	275.20	NO	125.17	NO, IE
2012	165 892.28	19 178.51	7 672.69	2 191.50	188.45	NO	172.51	NO, IE
2013	165 690.14	19 166.69	7 684.82	2 234.13	143.76	NO	119.87	NO, IE
2014	158 001.04	18 771.51	7 815.38	2 241.16	93.21	NO	134.59	NO, IE
<b>Per cent change 1990– 2014</b>	<b>-3.2</b>	<b>-41.9</b>	<b>-55.7</b>	<b>-60.0</b>	<b>-96.5</b>	<b>NO</b>	<b>-34.9</b>	<b>NA</b>

*Abbreviations:* IE = include elsewhere, NA = not applicable, NO = not occurring.

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

<sup>b</sup> CO<sub>2</sub> emissions include indirect CO<sub>2</sub> emissions reported in common reporting format table 6.

Table 7

**Greenhouse gas emissions by sector for the Netherlands, 1990–2014<sup>a, b</sup>**(kt CO<sub>2</sub>eq)

	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other</i>
1990	156 548.67	25 569.15	25 264.26	6 081.03	14 180.80	NO
1995	167 806.81	26 799.54	24 454.76	6 322.96	12 576.33	NO
2000	166 058.08	22 788.85	21 170.88	6 205.62	9 814.48	NO
2010	178 515.66	12 318.33	18 421.11	6 007.04	4 505.21	NO
2011	165 149.53	12 548.42	18 097.06	6 113.79	4 238.68	NO
2012	161 569.13	11 825.96	17 889.94	6 254.19	4 010.91	NO
2013	161 384.56	11 641.08	18 203.51	6 310.59	3 810.26	NO
2014	153 814.77	11 266.97	18 395.35	6 368.06	3 579.80	NO
<b>Per cent change 1990–2014</b>	<b>-1.7</b>	<b>-55.9</b>	<b>-27.2</b>	<b>4.7</b>	<b>-74.8</b>	<b>NA</b>

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

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

<sup>b</sup> Totals do include indirect CO<sub>2</sub> 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=15>.

“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#page=56>.

“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>.

Report of the technical assessment of the forest management reference level submission of the Netherlands submitted in 2011. Available at <http://unfccc.int/resource/docs/2011/tar/nld01.pdf>.

2013/162/EU: Commission Decision of 26 March 2013 on determining Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council (notified under document C(2013) 1708).

2013/634/EU: Commission Implementing Decision of 31 October 2013 on the adjustments to Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council.

## **B. Additional information provided by the Party**

Responses to questions during the review were received from Mr. Harry Vreuls and Mr. Peter Zijlema (Netherlands Enterprise Agency), including additional material on the methodology and assumptions used. The following document<sup>1</sup> was also provided by the Netherlands:

2015/1339/EU: Council Decision of 13 July 2015 on the conclusion, on behalf of the European Union, of the Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder.

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

## Annex III

### Acronyms and abbreviations

CH <sub>4</sub>	methane
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> 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
KP-LULUCF	LULUCF emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol
NA	not applicable
NF <sub>3</sub>	nitrogen trifluoride
NO	not occurring
N <sub>2</sub> O	nitrous oxide
PFC	perfluorocarbon
QA/QC	quality assurance/quality control
QELRC	quantified emission limitation and reduction commitment
SF <sub>6</sub>	sulphur hexafluoride
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change

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