

#### **United Nations**

FCCC/IRR/2016/LTU



Distr.: General 6 March 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 Lithuania

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 5 to 10 September 2016 in Bonn, Germany.

GE.17-03620(E)





## FCCC/IRR/2016/LTU

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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 Lithuania was organized by the UNFCCC secretariat, in accordance with the "Guidelines for review under Article 8 of the Kyoto Protocol". The review took place from 5 to 10 September 2016 in Bonn, Germany, and was coordinated by Ms. Suvi Monni and Mr. Pedro Torres (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of Lithuania.
- 2. A draft version of this report was communicated to the Government of Lithuania, which provided no comments.

Table 1 Composition of the expert review team that conducted the review of Lithuania

Area of expertise	Name	Party	
Generalist	Mr. Ricardo Fernandez	European Union	
	Mr. Michael Strogies	Germany	
Energy	Mr. Jerome Elliott	Bahamas	
	Ms. Carmen Meneses Lopez	Bolivarian Republic of Venezuela	
	Mr. Anand Sookun	Mauritius	
	Ms. Songli Zhu	China	
IPPU	Ms. Valentina Idrissova	Kazakhstan	
	Mr. Kakhaberi Mdivani	Georgia	
Agriculture	Ms. Marta Alfaro	Chile	
	Mr. Yuriy Pyrozhenko	Ukraine	
LULUCF	Mr. Vladimir Korotkov	Russian Federation	
	Ms. Diana Marcela Vargas	Colombia	
	Mr. Javier Fernandez	Costa Rica	
Waste	Ms. Maryna Bereznytska	Ukraine	
	Mr. Ching Tiong Tan	Malaysia	
Lead reviewers	Mr. Ricardo Fernandez		
	Ms. Songli Zhu		

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

At the time of publication of this report, Lithuania 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.

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's assessment of the reporting of mandatory elements by Lithuania 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 Lithuania in its report to facilitate the calculation of the assigned amount

Item		Comment			
General Party information	General Party information				
Date of submission		Original submission: 16 June 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 ID#3 in table 3			
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			
Information related to agreement by the Party under Article 4 commitments jointly	4 of the Kyo	to Protocol to implement			
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#8 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#4 in table 3			
(e) Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	Yes	See annex I, table 4. For further information, see ID#5 in table 3			

Item		Comment
Information related to the assigned amount and the commitm	ient perio	d reserve
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#7 in table 3
Has the Party indicated in the original submission the approach 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#7 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
Information related to activities under Article 3, paragraphs	3 and 4,	of the Kyoto Protocol
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	
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. For further information, see

Item		Comment
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?		ID#6 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#5 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
Information related to the national system and national regi	istry	
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.

#### 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 Lithuania has been undertaken together with the review of the inventory submission for

<sup>&</sup>lt;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>&</sup>lt;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.

the first year of the second commitment period. 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 Lithuania's reporting of mandatory elements in its report to facilitate the calculation of the assigned amount

ID#	Finding classification	Description of the finding	Classification of problem	
1.	Calculation of the assigned amount	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	Not a problem	
		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 Lithuania 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>		
		In the original report to facilitate the calculation of the assigned amount, Lithuania provided a clear reference to the joint fulfilment agreement and provided its assigned amount in tabular format (table 3), but without mentioning the source of the table. During the review week, the Party provided the information		
		The ERT concludes that the assigned amount reported by Lithuania is in accordance with the joint fulfilment agreement by the European Union, its member States and Iceland		
2.	Calculation of the assigned amount	The Party did not provide information on the base year-emissions in its report to facilitate the calculation of the assigned amount. During the review, the Party provided the information with a detailed calculation procedure. The Party stated that base year-emissions are 47 215 485 t $CO_2$ eq, including 1990 emissions of $CO_2$ , $CH_4$ and $N_2O$ of 47 209 226 t $CO_2$ eq (excluding LULUCF, as it is not a net source in 1990), and 1995 emissions of HFCs, PFCs, $SF_6$ and $NF_3$ of 6 258 t $CO_2$ eq	Not a problem	
		Furthermore, in response to the list of potential problems and further		

The annual review report on the 2016 inventory submission of Lithuania is available at <a href="http://unfccc.int/resource/docs/2017/arr/ltu.pdf">http://unfccc.int/resource/docs/2017/arr/ltu.pdf</a>, while the annual review report on the 2015 inventory submission of Lithuania is available at <a href="http://unfccc.int/resource/docs/2016/arr/ltu.pdf">http://unfccc.int/resource/docs/2016/arr/ltu.pdf</a>.

ID#	Finding classification	Description of the finding	Classification of problem
		questions raised by the ERT, Lithuania officially submitted revised CRF tables on 14 October 2016. The Party also provided revised base-year emissions, amounting to 48 196 540 t CO <sub>2</sub> eq. The ERT agreed with the revised base year estimate	
		The revised estimates for the base-year emissions do not affect the assigned amount for Lithuania 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 Lithuania. The ERT invites Lithuania to communicate the revised base year emission estimates to the European Union with a view to being considered in the calculation of the joint assigned amount of the European Union, its member States and Iceland	
3.	Calculation of the assigned amount	The ERT noted that Lithuania reported carbon stock changes in mineral soils in land converted to forest land as "NO" (not occurring) (see L.7 in document FCCC/ARR/2016/LTU). However, the ERT noted that this did not have an impact on the information provided in Lithuania's report to facilitate the calculation of the assigned amount	Not a problem
4.	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
5.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	The Party provided the information on the maximum accountable quantities resulting from forest management, in accordance with application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13. However, the Party did not provide the details of the calculation	Not a problem
		During the review, the Party stated that the value was calculated as 3.5% of the base-year emissions multiplied by the duration of the commitment period (13 186.27 kt $CO_2$ eq), but there was an error in the calculation in the original report. The Party provided a revised calculation for 3.5% of the base-year emissions multiplied by the duration of the commitment period of 13 220.34 kt $CO_2$ eq	
		Furthermore, in response to the list of potential problems and further questions raised by the ERT (see ID#2 above) Lithuania provided a further revised value for 3.5% of the base-year emissions multiplied by the duration of the commitment period of 13 495 031 t $\rm CO_2$ eq. The ERT agreed with the figure	
6.	Accounting of activities under Article 3, paragraphs 3 and	The ERT noted that the FMRL reported by Lithuania in its report to facilitate the calculation of the assigned amount was not in accordance with the appendix to annex to decision 2/CMP.7. The ERT further noted that the value of the technical correction was not transparently reported	Not a problem
	4, of the Kyoto Protocol	In response to a question raised by the ERT during the review, the Party stated that the FMRL and technical correction included in the report to facilitate the calculation of the assigned amount and in the CRF tables were incorrect. The Party further stated that the correct FMRL is $-4.552$ Mt CO <sub>2</sub> eq/year and the technical correction using the first-order decay function for harvested wood products is $-0.922$ Mt CO <sub>2</sub> eq/year. The ERT agreed with	

ID#	Finding classification	Description of the finding	Classification of problem
		these figures	
7.	Reporting pursuant to Article 3.7 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, 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	Not a problem
8.	National registry	In its initial report, Lithuania noted that it will establish a PPSR account in its national registry. Lithuania transparently reported on the application of paragraphs 23, 24 and 26 of decision 1/CMP.8, but did not explicitly report information on paragraph 25 (specifically, regarding use of the units in the PPSR account for retirement during the additional period for fulfilling of commitments of the second commitment period). During the review, the Party provided the information, acknowledging that this provision will be applied to the European Union, its member States and Iceland individually due to the fact that the PPSR accounts will be established in the registries under the Kyoto Protocol of the European Union, its member States and Iceland	Not a problem
9.	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 Lithuania 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.

# IV. Questions of implementation

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

<sup>&</sup>lt;sup>a</sup> The report to facilitate the calculation of the assigned amount for the European Union is available at <a href="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</a>.

<sup>&</sup>lt;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.

## Annex I

# Key relevant data for Lithuania

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

Key information or parameter provided	Comment		
General Party information			
Did the Party have a QELRC in the first commitment period?*	Yes		
Lithuania's QELRC in the second commitment period	Lithuania 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. 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		
Base-year emissions, final	48 196 540 t CO <sub>2</sub> eq		
Information related to the calculation of the assigned	amount and the commitment period reserve		
Assigned amount, as reported by the Party and agreed by the ERT	113 600 821 t CO <sub>2</sub> 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 8, as reported by	This difference is calculated on the basis of the joint assigned amount of the European Union, its members States and Iceland and is based on the gases and sources listed in Annex A to the		

Key information or parameter provided	Comment		
he Party and agreed by the ERT	Kyoto Protocol		
Commitment period reserve, as reported by the Party and agreed by the ERT	102 240 739 t CO <sub>2</sub> eq		
Information related to activities under Article 3, para	graphs 3 and 4, of the Kyoto Protocol		
LULUCF parameters	Minimum tree crown cover: 30%		
	Minimum land area: 0.1 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	−4.552 Mt CO <sub>2</sub> eq/year		
Γechnical corrections to the FMRL as reported in the original submission	Not reported in the original submission		
Technical corrections to the FMRL, final value	$-0.922~\mathrm{Mt~CO_2}$ eq/year		
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 calculated by the ERT	1 686.878 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 reported by the Party in the original submission	13 186.265 kt CO <sub>2</sub> eq (see ID#5 in table 3)		
3.5% of total base-year GHG emissions, excluding LULUCF, and including indirect CO <sub>2</sub> emissions multiplied by 8, final value	$13\ 495.031\ \mathrm{kt}\ \mathrm{CO}_{2}\ \mathrm{eq}$		
Will the Party exclude emissions from natural disturbances in accounting for:			
(a) Afforestation and reforestation	No		

Key information or parameter provided	Comment
(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.

- <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.
- 2. Tables 5–7 provide an overview of total greenhouse gas emissions and removals as submitted by the Party. 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 Lithuania, 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
	Total including LULUCF	Total excluding LULUCF	Total including LULUCF	Total excluding LULUCF	in the Doha Amendment) <sup>d</sup>
Base year	44 626.23	48 196.54	44 626.23	48 196.54	NA
1990	44 619.98	48 190.28	44 619.98	48 190.28	
1995	19 755.81	22 400.51	19 755.81	22 400.51	
2000	10 657.63	19 605.28	10 657.63	19 605.28	
2010	9 894.83	20 755.13	9 894.83	20 755.13	
2011	10 445.65	21 254.46	10 445.65	21 254.46	
2012	12 543.47	21 112.68	12 543.47	21 112.68	
2013	10 248.76	19 850.83	10 248.76	19 850.83	
2014	11 668.79	19 777.75	11 668.79	19 777.75	

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

<sup>&</sup>lt;sup>a</sup> Base year refers to the base year under the Kyoto Protocol, which is 1990 for  $CO_2$ ,  $CH_4$  and  $N_2O$ , and 1995 for HFCs, PFCs,  $SF_6$  and  $NF_3$ .

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

 $<sup>^{</sup>c}$  The Party has not reported indirect carbon dioxide emissions in common reporting format table 6.

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

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Table 6 Greenhouse gas emissions by gas for Lithuania, excluding land use, land-use change and forestry 1990–2014<sup>a</sup> (kt CO<sub>2</sub> eq)

Year	$CO_2^{\ b}$	$CH_4$	$N_2O$	HFCs	PFCs	Unspecified mix of HFCs and PFCs	$SF_6$	$NF_3$
1990	35 812.89	7 006.66	5 370.73	NO	NO	NO	NO	NO
1995	15 022.54	4 396.41	2 975.29	6.21	NO	NO	0.05	NO
2000	11 801.96	3 764.72	4 015.79	22.08	NO	NO	0.72	NO
2010	13 618.91	3 672.49	3 198.22	259.52	NO	NO	5.99	NO
2011	13 919.02	3 505.34	3 515.82	306.54	NO	NO	7.74	NO
2012	13 975.52	3 520.26	3 261.87	351.03	NO	NO	3.99	NO
2013	12 987.82	3 420.27	3 031.22	405.15	NO	NO	6.32	0.06
2014	12 732.80	3 464.71	3 124.49	449.48	NO	NO	5.98	0.29
Per cent change 1990–2014	-64.4	-50.6	-41.8	NA	NA	NA	NA	NA

Abbreviations: 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> Lithuania did not report indirect carbon dioxide emissions in common reporting format table 6.

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Table 7 Greenhouse gas emissions by sector for Lithuania, 1990–2014<sup>a,b</sup> (kt CO2 eq)

	Energy	IPPU	Agriculture	LULUCF	Waste	Other
1990	33 123.67	4 499.32	8 919.71	-3 570.31	1 647.58	NO
1995	14 065.45	2 239.86	4 447.37	-2 644.70	1 647.83	NO
2000	10 808.22	3 091.92	4 100.94	-8 947.65	1 604.20	NO
2010	12 768.70	2 257.61	4 352.60	-10 860.31	1 376.22	NO
2011	11 873.25	3 733.68	4 362.96	-10 808.81	1 284.57	NO
2012	11 908.52	3 576.76	4 366.98	-8 569.21	1 260.42	NO
2013	11 299.34	3 008.06	4 355.36	-9 602.06	1 188.07	NO
2014	10 915.56	3 200.00	4 525.60	-8 108.96	1 136.59	NO
Per cent change						
1990–2014	-67.0	-28.9	-49.3	127.1	-31.0	NA

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.

b Lithuania did not report indirect carbon dioxide 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

<a href="http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf">http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf</a>#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 <a href="http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf">http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf</a>>.

"Guidelines for review under Article 8 of the Kyoto Protocol". Annex to decision 22/CMP.1. Available at

<a href="http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=51">http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=51</a>.

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# B. Additional information provided by the Party

Responses to questions during the review were received from Ms. Jolanta Merkeliene (Ministry of the Environment), including additional material on the methodology and assumptions used.

## **Annex III**

## Acronyms and abbreviations

 $CH_4$  methane  $CO_2$  carbon dioxide

CO<sub>2</sub> eq carbon dioxide equivalent

ERT expert review team

FMRL forest management reference level

GHG greenhouse gas HFC hydrofluorocarbon

IPPU industrial processes and product use

kt kilotonne

LULUCF land use, land-use change and forestry

 $\begin{array}{lll} NA & & \text{not applicable} \\ NF_3 & & \text{nitrogen trifluoride} \\ NO & & \text{not occurring} \\ N_2O & & \text{nitrous oxide} \\ PFC & & \text{perfluorocarbon} \end{array}$ 

QELRC quantified emission limitation and reduction commitment

SF<sub>6</sub> sulphur hexafluoride

UNFCCC United Nations Framework Convention on Climate Change