

*Republic of Poland*

**Report to facilitate  
the calculation of the assigned amount  
for the second commitment period**

pursuant to Article 3 paragraphs 7bis,  
8 and 8bis of the Kyoto Protocol

**according to the decision 2/CMP.8**



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## 1. Introduction

This document constitutes the report to facilitate the calculation of the assigned amount of Poland being the member of the European Union pursuant to Article 3(7bis), (8) and (8bis) of the Kyoto Protocol (KP) for the second commitment period and to demonstrate the capacity to account for the emissions and assigned amount in accordance with decision 2/CMP.8 under the Kyoto Protocol period, also referred to as the 'initial report'. The report is elaborated in line with Annex I to the decision 2/CMP.8.

The targets (quantified emission limitation and reduction commitments, QELRCs) for Poland and the European Union are listed in the Doha Amendment<sup>1</sup> with a footnote stating that those targets are based on the understanding that they will be fulfilled jointly by the Union and its Member States, in accordance with Article 4 of the Kyoto Protocol. More on the joint fulfilment see chapter 4.

## 2. Complete inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases (GHGs) not controlled by the Montreal Protocol, recalculated in accordance with decision 4/CMP.7 for all years since 1988, in accordance to the provisions of Article 3, paragraph 5, of the Kyoto Protocol, to the most recent year available, and prepared in accordance with Article 5, paragraph 2, of the Kyoto Protocol, and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) and the Conference of the Parties (COP).

The complete inventories covering full time series for 1988–2014 is submitted in conjunction with the 2016 annual national GHGs inventory submission. The short emission table for the key years by sectors and gases is presented below.

GHG emissions by source categories [kt CO<sub>2</sub> eq.]

Source categories	1988	1990	1995	2000	2005	2010	2014
1. Energy	483 410	386 321	372 528	322 219	328 462	335 488	308 848
2. Industrial processes and product use	33 962	25 115	24 561	25 499	26 945	26 600	30 015
3. Agriculture	47 529	46 848	34 482	30 792	29 322	29 551	30 410
4. Land-Use, Land-Use Change and Forestry (LULUCF)	-15 993	-25 730	-15 344	-33 415	-48 515	-32 608	-32 503
5. Waste	14 968	14 712	13 702	13 765	12 685	11 960	10 765
<b>TOTAL (without LULUCF)</b>	<b>579 869</b>	<b>472 996</b>	<b>445 273</b>	<b>392 276</b>	<b>397 414</b>	<b>403 599</b>	<b>380 038</b>

GHG emissions by gases [kt CO<sub>2</sub> eq.]

Greenhouse gases	1988	1990	1995	2000	2005	2010	2014
CO <sub>2</sub>	473 955	378 783	363 886	319 120	323 373	334 026	310 307
CH <sub>4</sub>	76 734	67 064	58 255	49 403	47 128	43 166	41 330
N <sub>2</sub> O	29 032	27 008	22 833	22 272	22 228	19 571	19 746
HFCs	0	0	97	1 281	4 471	6 783	8 587
PFCs	147	142	172	177	187	17	14
SF <sub>6</sub>	0	0	29	23	27	35	53
NF <sub>3</sub>	0	0	0	0	0	0	0
<b>TOTAL (without LULUCF)</b>	<b>579 869</b>	<b>472 996</b>	<b>445 273</b>	<b>392 276</b>	<b>397 414</b>	<b>403 599</b>	<b>380 038</b>

<sup>1</sup> The Doha Amendment to the Kyoto Protocol, FCCC/KP/CMP/2012/13/Add.1.

- 3. The identification of the selected base year for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride in accordance with Article 3, paragraph 8, of the Kyoto Protocol, if the Party included in Annex I did not have a quantified emission limitation and reduction target in the first commitment period, and the identification of its selected base year for nitrogen trifluoride in accordance with Article 3, paragraph 8bis, of the Kyoto Protocol, for all Parties included in Annex I with a quantified emission limitation and reduction target for the second commitment period**

Poland selected 1995 as the base year for fluorinated gases: HFCs, PFCs and SF<sub>6</sub> in the first commitment period. **The year 2000 has been chosen for nitrogen trifluoride (NF<sub>3</sub>) as the base year for the fulfilment of the reduction target for the second commitment period.**

- 4. The agreement under Article 4 of the Kyoto Protocol for the second commitment period, where the Party has reached such an agreement to fulfil its commitments under Article 3 of the Kyoto Protocol jointly with other Parties;**

The European Union, its Member States at the time (including Poland), together with Croatia<sup>2</sup> and Iceland issued a joint declaration<sup>3</sup> upon the adoption of the Doha Amendment, expressing their intention to fulfil their commitments in the second commitment period jointly following Article 4 of the KP. The ratification decision (Council Decision (EU) 2015/1339) sets out the terms of the joint fulfilment between the Union and its Member States and Iceland. The same terms are integral part of the Agreement between the EU and its Member States on one side, and Iceland on the other side, concerning Iceland's participation in the joint fulfilment of the commitments of the EU, its Member States and Iceland in the second commitment period of the KP in accordance with Council Decision (EU) 2015/1340.

*Respective emission levels allocated to the parties to the joint fulfilment agreement*

The joint quantified emission limitation and reduction commitment (QELRC) listed in the third column of Annex B of the Kyoto Protocol for Poland, the European Union and its member states as well as for Island is 80%. The joint assigned amount of the is determined pursuant to Article 3(7bis), (8) and (8bis) of the Kyoto Protocol on the basis of the combined base year emissions. The combined base year emissions of the EU, its Member States and Iceland are equal to the sum of the respective base year emissions of the 28 Member States and Iceland. The combined base year emissions represent the aggregate sum, taking account of the choice of base years for CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> for each Member State.

The assigned amount of the European Union relates to gases and sectors specified in the Annex A to the KP which are – to some extent – covered also by the European Union Emission Trading System (EU ETS) established by the EU ETS Directive<sup>4</sup>. The gases and sectors covered by the EU ETS are those specified in Annex I of the EU ETS Directive subject to provisions of its Articles 24 and 27.

The assigned amounts of the EU Member States and Iceland cover the emissions from sectors and gases listed in Annex A to the Kyoto Protocol not covered by the EU ETS Directive. This includes among others all emissions from sources and removals by sinks covered by Article 3(3) and (4) of the Protocol as well as all emissions of nitrogen trifluoride (NF<sub>3</sub>) under the Kyoto Protocol. Emission allocations at the EU level are no longer derived as a reduction percentage compared to base year emissions as in the first commitment period, but as an absolute figure, expressed in tonnes of carbon dioxide equivalents listed for each Member State and Iceland. The figure for individual Member States is equal to the sum of each Member State's Annual Emissions Allocation for the years 2013 to 2020 under Decision No 406/2009/EC on the effort of Member States to reduce their greenhouse gas

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<sup>2</sup> Croatia only joined the EU on 1 July 2013, i.e. after the adoption of the Doha Amendment.

<sup>3</sup> Declaration made in footnotes 4, 6 and 8 to Annex B of the Doha Amendment and Council Decisions (EU) 2015/1339 and 2015/1340

<sup>4</sup> Directive 2009/29/EC of the European Parliament and of the Council amending Directive 2003/87/EC, OJ L140, 5.6.2009, p. 63.

emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (Effort Sharing Decision).<sup>5</sup>

The rest of the emissions, namely the emissions covered by EU ETS will be accounted for at the EU ETS level (i.e. on the EU level).

The assessment of compliance of the joint fulfilment at the end of the second commitment period does not require changes to the annual inventory reporting. The European Union, the 28 Member States and Iceland shall continue to report individually on emissions by sources and removals by sinks, submitting full greenhouse gas inventories covering all anthropogenic emissions by sources and removals by sinks for gases listed on Annex A to the Kyoto Protocol and all source categories covered by the UNFCCC reporting guidelines occurring on their territories. They will also report annually in the national inventory reports on their verified emissions falling under the scope of the Emissions Trading System and the share of those emissions in the total emissions, allowing for the transparent annual monitoring of the non-ETS emission levels.

The European Union shall report in its national inventory report on the combined emissions of the 28 Member States and Iceland as well as the emissions for sources and sinks falling under the scope of the Emissions Trading System.

#### **5. The calculation of its assigned amount pursuant to Article 3, paragraphs 7bis, 8 and 8bis, of the Kyoto Protocol.**

Pursuant to Article 3(7bis), (8) and (8bis) of the Kyoto Protocol and paragraph 2 of Annex I to the decision 4/CMP.7, the assigned amount for the second commitment period is equal to the percentage (inscribed in the third column of the table in Annex B to the KP introduced by the Doha Amendment) of the aggregate anthropogenic carbon dioxide equivalent emissions of greenhouse gases in the base year multiplied by eight, taking into account Article 3(7bis) of the Kyoto Protocol and paragraph 2 of the Annex to the decision 4/CMP.7. This method is applied to the calculation of the joint assigned amount only. It does not apply to the calculation of the individual assigned amounts for the Union, the Member States individually, or Iceland. Thus, the levels of the base year emissions do not play a role in the calculation of their individual assigned amounts, which are instead determined pursuant to the joint fulfilment agreement. More on the joint fulfilment see chapter 4.

The respective assigned amounts of each Member State and Iceland are equal to the emission levels agreed under the terms of the joint fulfilment, listed in Annex 2 of the ratification decision, after the application of Article 3(7bis) of the Kyoto Protocol.

**The individual assigned amount for Poland for the KP second commitment period amounts to 1,583,938,824 tCO<sub>2</sub>eq** and is equal to the sum of Poland's Annual Emissions Allocation under *Decision No 406/2009/EC on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020* for the years 2013 to 2020.

For the assessment of compliance with the joint fulfilment agreement at the end of the second commitment period, the total GHG emissions of the European Union (EU ETS), its Member States (non-ETS) and Iceland (non-ETS) from sources listed in Annex A to the Kyoto Protocol for the period 2013 to 2020 shall be compared to the total amount of Kyoto units retired in the Kyoto registries of the European Union, its Member States and Iceland.

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<sup>5</sup> OJ L140, 5.6.2009, p. 136

**6. The calculation of its commitment period reserve in accordance with decision 11/CMP.1 or any subsequent revision thereof related to the calculation of the commitment period reserve;**

Parties are required by decision 11/CMP.1 under the Kyoto Protocol and paragraph 18 of decision 1/CMP.8 to establish and maintain a commitment period reserve as part of their responsibility to manage and account for their assigned amount. The commitment period reserve equals the lower of either 90% of a Party's assigned amount pursuant to Article 3(7bis), (8) and (8bis) or 100% of its most recently reviewed inventory, multiplied by 8.

For the purposes of the joint fulfilment, the commitment period reserve applies to the EU, its Member States and Iceland individually.

The commitment period reserve calculation for Poland [tCO<sub>2</sub>eq.]:

<i>90% of assigned amount</i>	<i>100% of most recently reviewed Inventory * 8</i>
90% * 1,583,938,824 = 1,425,544,942	8 * 380,037,566 = 3,040,300,528

**Poland's commitment period reserve amounts to 1,425,544,942 tCO<sub>2</sub>eq. for 2013–2020 and is equal to 90% of assigned amount.**

**7. The identification of its selection of single minimum values for tree crown cover, land area and tree height for use in accounting for its activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol;**

For the needs of reporting to Articles 3(3) and 3(4) of the Kyoto Protocol, Poland has selected the following minimum values for the forest definition<sup>6</sup>:

- minimum forest land area: 0.1 hectare
- minimum width of forest land area<sup>7</sup>: 10 m
- minimum tree crown cover: 10% with trees having a potential to reach a minimum height of 2 meters at maturity in situ. Young stands and all plantations that have yet to reach a crown density of 10 percent or a tree height of 2 meters are included under forest. Areas normally forming part of the forest area that are temporarily un-stocked as a result of human intervention, such as harvesting or natural causes such as wind-throw, but which are expected to revert to forest are also included.

**8. The identification of elected activities under Article 3, paragraph 4, of the Kyoto Protocol for inclusion in its accounting for the second commitment period;**

Poland continues to account the Forest Management activity in the second commitment period. Poland does not intend to elect any other additional human-induced activity under Article 3(4) of the Kyoto Protocol to include in its accounting for the second commitment period.

**9. The identification of whether, for each activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, it intends to account annually or for the entire commitment period;**

Poland intends to account the selected activities under Article 3(3) and 3(4) of the Kyoto Protocol for the entire commitment period.

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<sup>6</sup> These values are not in contradiction to forest definition in the Polish law (Law on Forests - text: last change 19 Sept. 2005 Law Gazette 05.157.1315)

<sup>7</sup> Excluding small private properties, private land transferred to the State Forests National Forest Holding or land belonging to Agriculture Property Agency.



**10. The forest management reference level as inscribed in the appendix to the annex to decision 2/CMP.7, any technical corrections as contained in the inventory report for the first year of the second commitment period and references to those sections in the national inventory report where such information is reported consistent with the requirements of decision 2/CMP.7, annex, paragraph 14;**

According to the Decision 2/CMP.7 anthropogenic greenhouse gas emissions, resulting from Forest Management under Article 3(4) of the Kyoto Protocol, shall be counted against the Forest Management Reference Level (FMRL) for the second commitment period. The FMRL has been based on projected average annual net emissions of Forest Management in the second commitment period established on historical data and forest policy.

**The FMRL for Poland amounts to –27,133 kt CO<sub>2</sub>eq per year** as reported and reviewed in 2011.

Additionally, according to paragraph 14 of the annex to the Decision 2/CMP.7, any Annex I Party accounting for forest management, shall demonstrate methodological consistency between the reference level and reporting for forest management during the second commitment period, including in the area accounted for, in the treatment of harvested wood products, and in the accounting of any emissions from natural disturbances. If necessary, Parties shall make technical corrections of FMRL, to ensure consistency with annual inventories when methodological changes occur, new historical data appear or accounting new pools would be available.

Since the Expert Review Team recommendations have been systematically applied in the country's LULUCF GHG inventory which triggered some methodological changes of relevant estimations, Poland intends to perform a submission related to the technical correction of the Forest Management Reference Level at the later stage to implement any potential recommendations and issues that might be raised by the ERT. The FMRL shall be also corrected if any updated historical data appears or country specific methodological changes are implemented during the second commitment period.

*Calculation pursuant to paragraph 13 in the annex to the Decision 2/CMP.7*

According to paragraph 13 in the annex of decision 2/CMP.7, additions to the assigned amount of a Party for the second commitment period resulting from forest management under Article 3(4) of the KP, and from forest management project activities undertaken under Article 6 of the KP, shall not exceed 3.5 per cent of the base year greenhouse gas emissions excluding land use, land-use change and forestry pursuant to Article 3(7) and (8), or any amendments thereto, times the duration of the commitment period in years (8 years). Similar to the general accounting of emissions and removals under Article 3(3) and (4), Member States and Iceland will apply this provision individually.

Maximum accountable quantities resulting from forest management under Article 3, paragraph 4 of the KP in the second commitment period for Poland amounts to 162,363,273 tCO<sub>2</sub>eq.

**11. 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 in accordance with decision 2/CMP.7, annex, paragraph 16**

The method that had been applied in the FMRL (i.e. flux data method) is presented in detail in [Rüter 2011<sup>8</sup>]. It is based on equation 12.1 from IPCC 2006 GL where activity data from UNECE TIMBER database were used and calculation of the carbon inflow back to the year 1900 was applied as suggested. Missing activity data from the period before the first year for which activity data had been available (i.e. 1964) was assumed to equal the average of the first five years for which activity data are given (i.e. 1964-1968). As the method applied for estimating the HWP contribution to FMRL is not fully in line with the guidance provided in 2013 IPCC KP Supplement, Chapter 2.8 (e.g. following the

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<sup>8</sup> Ref.: Rüter, S. (2011) Projection of Net Emissions from Harvested Wood Products in European Countries : For the period 2013-2020. Thünen-Institute of Wood Research, Report No: 2011/01, 63 p. [http://literatur.vti.bund.de/digbib\\_extern/dn048901.pdf](http://literatur.vti.bund.de/digbib_extern/dn048901.pdf)

method for estimating HWP from domestic origin and excluding HWP from Deforestation), Poland intends to apply a technical correction.

- 12. An indication of whether a Party intends to apply the provisions to exclude emissions from natural disturbances for the accounting for afforestation and reforestation under Article 3, paragraph 3, of the Kyoto Protocol and/or forest management under Article 3, paragraph 4, of the Kyoto Protocol during the second commitment period in accordance with decision 2/CMP.7, annex, paragraph 33, and any relevant supplementary methodological guidance developed by the Intergovernmental Panel on Climate Change and adopted by the CMP and the COP.**

Poland does not intend to use the provision to exclude emissions caused by natural disturbances during the second commitment period of the Kyoto Protocol.

- 13. A description of its national system in accordance with Article 5, paragraph 1, of the Kyoto Protocol, reported in accordance with the “Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”, if the Party included in Annex I did not have a quantified emission limitation and reduction target in the first commitment period;**

Not applicable

- 14. A description of its national registry, reported in accordance with the “Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”, if the Party included in Annex I did not have a quantified emission limitation and reduction target in the first commitment period.**

Not applicable