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**Conference of the Parties serving as the meeting
of the Parties to the Kyoto Protocol**

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Item X of the provisional agenda

**Annual compilation and accounting report for Annex B
Parties under the Kyoto Protocol for 2018**

Note by the secretariat

Summary

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, by decision 13/CMP.1, requested the secretariat to begin publishing annual compilation and accounting reports after completion of the initial review under Article 8 of the Kyoto Protocol and resolution of any questions of implementation. This report contains: key initial accounting parameters, based on the reports on the review of the reports to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, where available; information on transactions and holdings of Kyoto Protocol units reported in 2018; and data on greenhouse gas emissions for Parties included in Annex I¹ with commitments inscribed in the third column of Annex B in the Doha Amendment to the Kyoto Protocol as contained in annex I to decision 1/CMP.8. The information contained in this report is based on both final values (from the reviews of the 2017 annual submissions and of the reports to facilitate the calculation of the assigned amount for the second commitment period, where available) and provisional values (from the 2018 annual submissions and the reports to facilitate the calculation of the assigned amount for the second commitment period, both as reported by Parties). The final values will be made available upon completion of the associated reviews and the resolution of any questions of implementation.



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I. Introduction

A. Mandate

1. Parties to the Convention that are also Parties to the Kyoto Protocol with commitments inscribed in Annex B to the Kyoto Protocol (Annex B Parties) were required to start reporting supplementary information under Article 7, paragraph 1, of the Kyoto Protocol with the inventory submission due under the Convention for the first year of the commitment period after the Kyoto Protocol had entered into force for that Party.¹ The information reported shall include the following:

(a) Greenhouse gas (GHG) emissions from the sources listed in Annex A to the Kyoto Protocol, submitted as part of the annual GHG inventory;

(b) Anthropogenic GHG emissions by sources and removals by sinks from land use, land-use change and forestry (LULUCF) activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and any other elected activities under Article 3, paragraph 4, of the Kyoto Protocol;

(c) Transactions and holdings of Kyoto Protocol units: emission reduction units (ERUs), certified emission reductions (CERs), temporary certified emission reductions, long-term certified emission reductions, assigned amount units (AAUs) and removal units.

2. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), by decision 13/CMP.1 in conjunction with decision 3/CMP.11, requested the secretariat to publish annual compilation and accounting reports after completion of the initial review under Article 8 of the Kyoto Protocol and resolution of any questions of implementation relating to adjustments under Article 5, paragraph 2, of the Kyoto Protocol or to the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment to the Kyoto Protocol (annex I to decision 1/CMP.8) (hereinafter referred to as the Doha Amendment), and to forward the report to the CMP, the Compliance Committee and each Party concerned.

B. Scope of the note

3. This annual compilation and accounting report has been prepared prior to the completion of the review of all reports to facilitate the calculation of the assigned amount for the second commitment period (hereinafter referred to as the initial reports) under Article 8 of the Kyoto Protocol and the resolution of any questions of implementation relating to adjustments under Article 5, paragraph 2, of the Kyoto Protocol or to the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment.

4. This report covers information reported by all 38 Annex B Parties and reviewed as at 31 August 2018,² including information on the initial accounting parameters for the second commitment period of the Kyoto Protocol and relevant supplementary information reported under Article 7, paragraph 1, of the Kyoto Protocol. The report also includes an overview of the information reported by Parties in 2018 on: (1) total GHG emissions from the sources listed in Annex A to the Kyoto Protocol reported for 2015 and 2016; (2) GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and any other elected activities under Article 3, paragraph 4, of the

¹ Decision 15/CMP.1 in conjunction with decision 3/CMP.11, paragraph 2.

² The accounting parameters presented in this report are based on the final values available in the initial review reports published as at 31 August 2018; where initial review reports had not been published, the accounting parameters are based, where available, on the provisional values contained in the initial reports for the second commitment period as reported by Parties. Similarly, where the review of annual information submitted by Parties had been completed, the associated values are presented as final, and where it is still pending, the values are provisional.

Kyoto Protocol for 2015 and 2016; and (3) transactions and holdings of Kyoto Protocol units as at 31 December 2017.

5. Information is also provided in this report on the eligibility of the 38 Annex B Parties to participate in the flexibility mechanisms under the Kyoto Protocol.

6. Detailed information on assigned amounts of individual Annex B Parties and other accounting information provided under the Kyoto Protocol, where applicable, is contained in document FCCC/KP/CMP/2018/5/Add.1, which also contains relevant information reported in accordance with decision 2/CMP.8, paragraph 4, and decision 3/CMP.11, paragraph 14, and other information reported on a voluntary basis by Parties included in Annex I³ that do not have commitments inscribed in the third column of Annex B in the Doha Amendment (Japan, New Zealand and Russian Federation).

7. The initial reports, initial review reports and annual submissions of GHG inventories and accounting information reported by Parties are available on the UNFCCC website.⁴

C. Possible action by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol

8. The CMP may wish to take note of the information contained in this document and to take further action, if required.

II. Status of reporting and eligibility

A. Status of initial report submissions, annual submissions and the review process

9. As at 31 August 2018, 37 Annex B Parties⁵ had submitted their initial reports in accordance with decision 2/CMP.8, for which the review reports (following the technical review conducted in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”⁶) for 36 Parties had been published (the dates of submission of the former and publication of the latter are shown in table 1).

Table 1
Status of submission of reports to facilitate the calculation of the assigned amount for the second commitment period of Annex B Parties and publication of initial review reports

Annex B Party	Doha Amendment acceptance date	Second commitment period initial report original submission date	Second commitment period initial review report publication date
Australia	9 November 2016	7 May 2016	26 April 2017
Austria	21 December 2017	15 June 2016	31 May 2017
Belarus ^a	–	–	–
Belgium	14 November 2017	15 June 2016	20 June 2017
Bulgaria	21 December 2017	27 May 2016	21 June 2017
Croatia	21 December 2017	15 June 2016	28 March 2017
Cyprus	10 December 2015	15 June 2016	20 October 2017
Czechia	21 December 2017	15 June 2016	31 August 2017
Denmark	21 December 2017	15 June 2016	9 August 2017
Estonia	21 December 2017	15 June 2016	22 March 2017
European Union	21 December 2017	23 September 2016	14 May 2018
Finland	16 November 2017	29 June 2016	15 March 2017

³ The term “Party included in Annex I” is defined in Article 1, paragraph 7, of the Kyoto Protocol.

⁴ See <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-kyoto-protocol/second-commitment-period/initial-reports> and <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018>.

⁵ As at 31 August 2018, Belarus had not yet submitted its initial report.

⁶ Decision 22/CMP.1, annex, in conjunction with decision 4/CMP.11.

<i>Annex B Party</i>	<i>Doha Amendment acceptance date</i>	<i>Second commitment period initial report original submission date</i>	<i>Second commitment period initial review report publication date</i>
France	30 November 2017	16 June 2016	26 July 2017
Germany	14 November 2017	15 June 2016	12 April 2017
Greece	21 December 2017	15 June 2016	31 August 2017
Hungary	1 October 2015	15 June 2016	8 March 2017
Iceland	7 October 2015	19 September 2016	29 March 2017
Ireland	21 December 2017	17 June 2016	20 July 2017
Italy	18 July 2016	15 April 2016	31 May 2017
Kazakhstan	–	4 July 2017	–
Latvia	21 December 2017	15 June 2016	7 March 2017
Liechtenstein	23 February 2015	15 April 2016	21 September 2017
Lithuania	22 November 2017	16 June 2016	6 March 2017
Luxembourg	21 September 2017	1 August 2016	30 August 2017
Malta	21 December 2017	29 July 2016	21 July 2017
Monaco	27 December 2013	4 August 2017	23 March 2018
Netherlands	22 November 2017	15 June 2016	23 June 2017
Norway	12 June 2014	15 April 2016	27 March 2017
Poland	–	14 June 2016	20 June 2017
Portugal	22 November 2017	15 June 2016	5 September 2017
Romania	3 May 2016	15 June 2016	21 June 2017
Slovakia	16 November 2017	15 June 2016	3 March 2017
Slovenia	21 December 2017	15 June 2016	22 August 2017
Spain	14 November 2017	13 June 2016	14 July 2017
Sweden	14 November 2017	15 June 2016	6 April 2017
Switzerland	28 August 2015	15 April 2016	19 April 2017
Ukraine	–	10 June 2016	19 April 2017
United Kingdom	17 November 2017	1 July 2016	4 December 2017

^a Party had not yet submitted its initial report as at 31 August 2018.

10. As at 31 August 2018, all 38 Annex B Parties had submitted the common reporting format table component of their 2018 annual GHG inventory, with 37 Parties⁷ also having submitted their national inventory report. Thirty-seven Parties had also submitted information on GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and elected activities under Article 3, paragraph 4, of the Kyoto Protocol.⁸

11. As at 31 August 2018, 36 Annex B Parties had also submitted standard electronic format (SEF) tables for the period from 1 January to 31 December 2017.⁹

B. Status of eligibility

12. The status of eligibility of Annex B Parties to participate in the flexibility mechanisms under the Kyoto Protocol pursuant to decisions 3/CMP.1, 9/CMP.1, 11/CMP.1, 15/CMP.1 and 1/CMP.8 is provided in table 2.

13. The status of eligibility will be updated in the compilation and accounting database once the annual review of the relevant information reported in 2018 has been completed and any questions of implementation have been resolved.

⁷ Kazakhstan had not yet submitted its national inventory report as at 31 August 2018.

⁸ Belarus had not yet submitted such information as at 31 August 2018.

⁹ As at 31 August 2018, Belarus and Kazakhstan had not yet submitted SEF tables for the second commitment period of the Kyoto Protocol for the period from 1 January to 31 December 2017.

Table 2
Status of eligibility of Annex B Parties to participate in the Kyoto Protocol mechanisms

<i>Annex B Party</i>	<i>Status</i>	<i>Last change in eligibility status (date and time)^a</i>
Australia	E	11 July 2009, 00:00:01
Austria	E	5 April 2008, 00:00:01
Belarus ^b	—	—
Belgium	E	22 April 2008, 00:00:01
Bulgaria	E	4 February 2011, 15:42:12
Croatia	E	8 February 2012, 09:53:32
Cyprus ^b	—	—
Czechia	E	24 February 2008, 00:00:01
Denmark	E	20 April 2008, 00:00:01
Estonia	E	15 April 2008, 00:00:01
European Union	E	18 April 2008, 00:00:01
Finland	E	22 April 2008, 00:00:01
France	E	21 April 2008, 00:00:01
Germany	E	27 April 2008, 00:00:01
Greece	E	14 November 2008, 09:00:00
Hungary	E	30 December 2007, 00:00:01
Iceland	E	11 May 2008, 00:00:01
Ireland	E	19 April 2008, 00:00:01
Italy	E	19 April 2008, 00:00:01
Kazakhstan ^b	—	—
Latvia	E	29 April 2008, 00:00:01
Liechtenstein	E	22 April 2008, 00:00:01
Lithuania	E	24 October 2012, 10:47:02
Luxembourg	E	29 April 2008, 00:00:01
Malta ^b	—	—
Monaco	E	7 September 2008, 00:00:01
Netherlands	E	21 April 2008, 00:00:01
Norway	E	22 April 2008, 00:00:01
Poland	E	29 April 2008, 00:00:01
Portugal	E	28 April 2008, 00:00:01
Romania	E	13 July 2012, 12:42:59
Slovakia	E	4 February 2008, 00:00:01
Slovenia	E	22 April 2008, 00:00:01
Spain	E	19 April 2008, 00:00:01
Sweden	E	19 April 2008, 00:00:01
Switzerland	E	10 March 2008, 00:00:01
Ukraine	E	9 March 2012, 15:32:22
United Kingdom	E	11 April 2008, 00:00:01

Abbreviation: E = considered to meet the eligibility requirements under: Article 6 of the Kyoto Protocol, pursuant to decision 9/CMP.1, annex, paragraph 22; Article 12, pursuant to decision 3/CMP.1, annex, paragraph 32; and Article 17, pursuant to decision 11/CMP.1, annex, paragraph 3.

^a All times are in Greenwich Mean Time.

^b The eligibility of the Party to participate in the flexibility mechanisms under the Kyoto Protocol had not been established as at 31 August 2018. See decision 1/CMP.8 in conjunction with decision 11/CMP.1, annex, paragraphs 2 and 3; decision 9/CMP.1, annex, paragraphs 21 and 22; and decision 3/CMP.1, annex, paragraphs 31 and 32.

III. Main accounting parameters

A. Key initial accounting parameters

14. Table 3 shows the base years chosen for the accounting of fluorinated gases (i.e. hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen

trifluoride (NF_3)), the GHG emissions from the sources listed in Annex A to the Kyoto Protocol in the base year, and the assigned amounts established pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment.

1. Total base-year greenhouse gas emissions used for calculation of the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment

15. Article 3, paragraphs 8 and 8 bis, in the Doha Amendment allow any Party included in Annex I to use 1995 as its base year for HFCs, PFCs and SF_6 and 1995 or 2000 as the base year for total emissions of NF_3 for the purpose of calculating its assigned amount pursuant to Article 3, paragraph 7 bis, in the Doha Amendment. The European Union has multiple base years (1990, 1995 or 2000) for fluorinated gases, depending on the base year elected by the individual member States and Iceland.

16. The total GHG emissions of 37 Annex B Parties¹⁰ in the base year¹¹ amounted to 7,875.5 million tonnes of carbon dioxide equivalent (Mt CO_2 eq), including total GHG emissions of 7,721.8 Mt CO_2 eq from the sources listed in Annex A to the Kyoto Protocol and emissions from LULUCF (net emissions and removals in the base year from the conversion of forests (deforestation) of 153.7 Mt CO_2 eq.

Table 3
Base-year emissions and assigned amounts for the second commitment period of the Kyoto Protocol

Party	Base year defined under the Kyoto Protocol ^a			Base-year emissions ^b (t CO_2 eq)	Emission reduction/ limitation target (% of base-year level ^c)	Assigned amount (t CO_2 eq)
	CO_2 , CH_4 and N_2O	HFCs, PFCs and SF_6	NF_3			
Australia	1990	1990	1990	566 786 410	99.5	4 511 619 826
Austria	1990	1990	2000	78 855 136	80.0	405 712 317
Belarus ^d	—	—	—	—	—	—
Belgium	1990	1995	1995	147 811 094	80.0	584 228 513
Bulgaria	1988	1995	1995	114 105 323	80.0	222 945 983
Croatia	1990	1990	2000	31 204 631	80.0	162 271 086
Cyprus	1990	1995	1995	5 627 236	80.0	47 450 128
Czechia	1990	1995	1995	198 316 406	80.0	520 515 203
Denmark	1990	1995	1995	70 801 910	80.0	269 377 890
Estonia	1990	1995	1995	39 996 697	80.0	51 056 976
European Union ^{e,f}	1990	1990 or 1995	1995 or 2000	5 875 692 700	80.0	15 813 089 338
Finland	1990	1995	1995	71 350 147	80.0	240 544 599
France	1990	1990	1995	548 055 757	80.0	3 014 714 832
Germany	1990	1995	1995	1 253 599 336	80.0	3 592 699 888
Greece	1990	1995	2000	107 564 136	80.0	480 791 166
Hungary	1985– 1987	1995	1995	109 574 819	80.0	434 486 280
Iceland	1990	1990	1995	3 633 558	80.0	15 327 217
Ireland	1990	1995	1995	56 425 830	80.0	343 519 892
Italy	1990	1990	1995	521 920 601	80.0	2 410 291 421
Kazakhstan ^g	1990	1995	2000	389 104 468	95.0	2 957 193 957
Latvia	1990	1995	1995	26 409 077	80.0	76 633 439
Liechtenstein	1990	1990	1990	231 554	84.0	1 556 044
Lithuania	1990	1995	1995	48 196 540	80.0	113 600 821
Luxembourg	1990	1995	1995	13 141 245	80.0	72 454 473
Malta	1990	1990	1995	1 974 638	80.0	9 299 769
Monaco	1990	1995	1990	99 319	78.0	619 751

¹⁰ The total includes the emissions of the European Union but excludes the emissions of the individual European Union member States and Iceland, in order to avoid double counting.

¹¹ The total GHG emissions in the base year refers to the total GHG emissions that were used for the calculation of the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment.

Party	Base year defined under the Kyoto Protocol ^a			Base-year emissions ^b (t CO ₂ eq)	Emission reduction/ limitation target (% of base-year level ^c)	Assigned amount (t CO ₂ eq)
	CO ₂ , CH ₄ and N ₂ O	HFCs, PFCs and SF ₆	NF ₃			
Netherlands	1990	1995	1995	223 950 669	80.0	924 777 902
Norway	1990	1990	2000	51 921 771	84.0	348 914 303
Poland	1988	1995	2000	580 020 010	80.0	1 583 938 824
Portugal	1990	1995	2000	65 028 094	80.0	429 581 969
Romania	1989	1989	2000	304 920 568	80.0	656 059 490
Slovakia	1990	1990	2000	74 271 511	80.0	202 268 939
Slovenia	1986	1995	1995	20 327 584	80.0	99 425 782
Spain	1990	1995	1995	283 361 698	80.0	1 766 877 232
Sweden	1990	1995	1995	72 057 123	80.0	315 554 578
Switzerland	1990	1990	1990	53 706 729	84.2	361 768 524
Ukraine	1990	1990	1990	937 954 204	76.0	5 702 761 558
United Kingdom	1990	1995	1995	803 191 325	80.0	2 744 937 332
Total^h				7 875 497 155		51 488 867 242

Note: The information in this table is based on the final values available in the initial review reports published as at 31 August 2018, unless stated otherwise (see table footnotes).

^a Parties included in Annex I may choose to use 1995 as the base year for total emissions of HFCs, PFCs, SF₆ and 1995 or 2000 as the base year for emissions of NF₃ in accordance with Article 3, paragraphs 8 and 8 bis, in the Doha Amendment.

^b Refers to the total base-year greenhouse gas emissions used for the calculation of the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment. Note that the following Parties included net emissions from land use, land-use change and forestry (deforestation) in their total greenhouse gas emissions for the base year in accordance with Article 3, paragraph 7 bis, in the Doha Amendment and decision 13/CMP.1, annex, paragraph 5(b): Australia: 148,163,361 t CO₂ eq; Denmark: 8,807 t CO₂ eq; European Union: 5,560,495 t CO₂ eq; Ireland: 8,230 t CO₂ eq; Luxembourg: 268,381 t CO₂ eq; Netherlands: 752,270 t CO₂ eq; Portugal: 4,276,759 t CO₂ eq; and United Kingdom of Great Britain and Northern Ireland: 246,048 t CO₂ eq.

^c The emission reduction/limitation target is taken from the third column of the table contained in Annex B in the Doha Amendment to the Kyoto Protocol as contained in annex I to decision 1/CMP.8. For the second commitment period, the European Union and its 28 member States and Iceland agreed to meet their targets jointly in accordance with Article 4 of the Kyoto Protocol.

^d Belarus had not yet submitted its initial report for the second commitment period as at 31 August 2018.

^e The base year for CO₂, CH₄ and N₂O is 1990 for Iceland and all member States, except Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986).

^f The assigned amount of the European Union (15,813,089,338 t CO₂ eq) is the difference between (1) the joint assigned amount of the European Union, its member States and Iceland, equalling 80 per cent of their base-year emissions as inscribed in the third column of the table in Annex B in the Doha Amendment to the Kyoto Protocol (annex I to decision 1/CMP.8), multiplied by eight (37,604,433,280 t CO₂ eq), and (2) the sum of the individual assigned amounts of the 28 member States and Iceland (21,791,343,942 t CO₂ eq) determined in line with the terms of the joint fulfilment agreement.

^g As at 31 August 2018, the review of the initial report of Kazakhstan was in progress; as such, the information in this table is based on the information contained in the initial report for the second commitment period as reported by the Party.

^h For the base-year emissions, the total includes the base-year emissions of the European Union but does not include the base-year emissions of the individual member States and Iceland, in order to avoid double counting. However, for the assigned amounts, the total includes the assigned amount of the European Union, its individual member States and Iceland as the assigned amount of the European Union is the difference between the joint assigned amount and the sum of the individual assigned amounts of the member States and Iceland.

2. Assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment

17. Pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment, the assigned amount for the second commitment period of the Kyoto Protocol for each Party included in Annex I is calculated as the percentage inscribed for it in the third column of the table contained in Annex B in the Doha Amendment of its aggregate anthropogenic CO₂ eq emissions of the GHGs from sources listed in Annex A to the Kyoto Protocol in the base year, multiplied by eight. The assigned amounts for the 28 European Union member States

and Iceland have been calculated under the joint fulfilment agreement of the European Union for meeting commitments under the Kyoto Protocol.

18. For the second commitment period, the total assigned amount of 37^{12} Annex B Parties taken together is 51,488,867,242 t CO₂ eq.

B. Greenhouse gas emissions and removals in 2015 and 2016

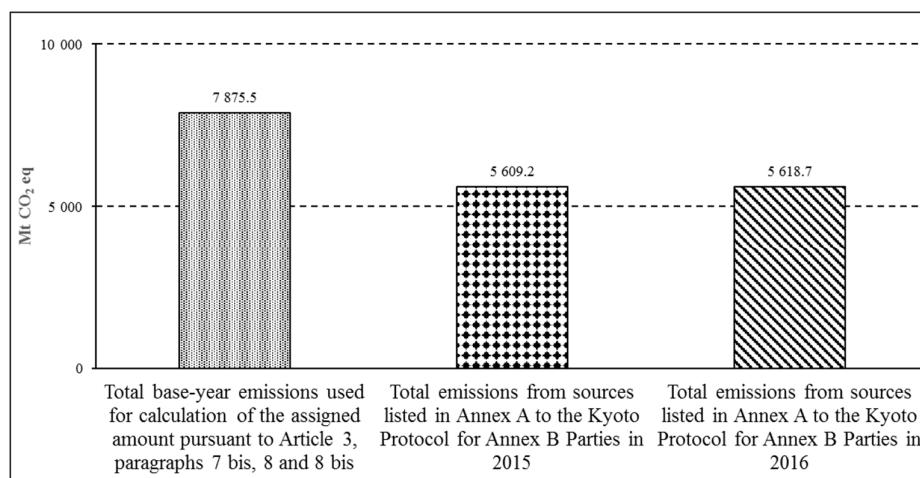
19. The aggregated totals for Annex B Parties presented in this section include the emissions of the European Union but exclude the emissions of its individual member States and Iceland, in order to avoid double counting. The totals in this section could not include Belarus as it had not yet submitted its initial report for the second commitment period of the Kyoto Protocol as at 31 August 2018.

20. The information on GHG emissions provided here includes indirect carbon dioxide emissions, where reported.

1. Emissions from sources listed in Annex A to the Kyoto Protocol in 2015 and 2016

21. On the basis of the information submitted by Annex B Parties, the total GHG emissions of Annex B Parties from sources listed in Annex A to the Kyoto Protocol in 2016 amounted to 5,618.7 Mt CO₂ eq. This is 28.7 per cent lower than the base-year level defined under the Kyoto Protocol and 0.17 per cent higher than the 2015 level (see the figure below).

Total greenhouse gas emissions for Annex B Parties from sources listed in Annex A to the Kyoto Protocol in 2015 and 2016



Notes: (1) The values for the total greenhouse gas emissions from sources listed in Annex A to the Kyoto Protocol for Annex B Parties in 2015 and 2016, which are based on information submitted in 2018, are presented here provisionally and may change depending on the outcomes of the ongoing annual reviews; (2) the totals include the emissions of the European Union but not of its individual member States and Iceland; (3) the totals could not include the emissions of Belarus as it had not yet submitted its initial report for the second commitment period of the Kyoto Protocol as at 31 August 2018.

2. Difference in the data for 2015 on emissions from Annex A sources between the 2017 and 2018 submissions

22. Two sets of data on GHG emissions from sources listed in Annex A to the Kyoto Protocol are considered in this report: the values reported in the 2017 submissions, which

¹² The total includes the assigned amount of the European Union, its individual member States and Iceland. The total does not include the assigned amount of Belarus, which had not yet submitted its initial report for the second commitment period of the Kyoto Protocol as at 31 August 2018.

have been reviewed, where applicable, and the latest available values, reported in the 2018 submissions, the review of which is in progress.

23. Total GHG emissions from sources listed in Annex A to the Kyoto Protocol in 2015 reported by Parties in their 2018 submissions amounted to 5,609.2 Mt CO₂ eq. That is 0.6 per cent higher than reported by Annex B Parties for the same year in their 2017 submissions (5,574.5 Mt CO₂ eq). The change in value is due primarily to the recalculations that Parties applied to their GHG inventories.

3. Greenhouse gas emissions and removals from land use, land-use change and forestry activities

24. Of the Parties that had submitted an initial report as at 31 August 2018, 33 chose to account for LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol for the entire second commitment period at the end of the commitment period and 3 Parties chose to account for them annually. Similarly, 34 Parties chose to account for LULUCF activities under Article 3, paragraph 4, of the Kyoto Protocol for the entire second commitment period at the end of the commitment period and 2 Parties chose to account for them annually. In accordance with decision 2/CMP.7, all Parties included in Annex I shall account for anthropogenic GHG emissions by sources and removals by sinks resulting from any activity under Article 3, paragraph 4, of the Kyoto Protocol elected in the first commitment period and forest management. Twenty-four Parties elected not to account for any of the LULUCF activities other than forest management under Article 3, paragraph 4, of the Kyoto Protocol, while the other Parties chose to account for at least one of them (see table 4). The Party counts in this paragraph exclude the European Union, for which the periodicity of reporting is determined by its individual member States and Iceland.

Table 4
Summary of methods chosen by Parties in accounting for activities under Article 3, paragraph 4, of the Kyoto Protocol

<i>Activity under Article 3, paragraph 4, of the Kyoto Protocol</i>	<i>Number of Parties by type of accounting period elected</i>		
	<i>No accounting</i>	<i>Annually</i>	<i>Entire commitment period</i>
Forest management	0	2	34
Cropland management	27	1	8
Grazing land management	27	1	8
Revegetation	33	0	3
Wetland drainage and rewetting	35	0	1

Note: The Party counts do not include the European Union.

25. In accordance with decision 15/CMP.1 in conjunction with decisions 3/CMP.11 and 2/CMP.8, Annex B Parties are required to include in their annual GHG inventories information on anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol. As at 31 August 2018, 37 Annex B Parties¹³ had reported information on GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol in their 2018 annual submission. A summary of the information provided pursuant to decisions 2/CMP.7, 6/CMP.9 and 3/CMP.11 on the total net anthropogenic GHG emissions and removals for Annex B Parties from each of the LULUCF activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol for 2015 and 2016 is provided in table 5.

¹³ Belarus had not yet submitted such information as at 31 August 2018.

Table 5

Summary of total net anthropogenic greenhouse gas emissions and removals for Annex B Parties from land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol for 2015 and 2016 (provisional values)

<i>Land use, land-use change and forestry activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>	<i>Number of reporting Parties</i>	<i>Net greenhouse gas emissions or removals (t CO₂ eq) in 2015</i>	<i>Net greenhouse gas emissions or removals (t CO₂ eq) in 2016</i>
Article 3, paragraph 3, activities			
Afforestation and reforestation	33	−86 398 140	−84 726 915
Deforestation	34	69 895 227	77 730 884
Net emissions or removals	34	−16 502 913	−6 996 031
Article 3, paragraph 4, activities			
Forest management	34	−539 246 652	−534 173 216
Cropland management	9	26 002 759	25 430 532
Grazing land management	9	23 600 642	21 360 447
Revegetation	3	−1 901 356	−2 007 308
Wetland drainage and rewetting	0		
Net emissions or removals	34	−491 544 606	−489 389 545

Note: Greenhouse gas information includes the emissions of the European Union but excludes the emissions of its individual member States and Iceland in order to avoid double counting. Party counts exclude the European Union and include its individual member States and Iceland, if appropriate.

26. As at 31 December 2017, no removal units had been issued into national registries resulting from activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol accounted in accordance with decisions 13/CMP.1, 2/CMP.7 and 6/CMP.9 for the second commitment period of the Kyoto Protocol.

4. Difference in the data for 2015 on emissions and removals from land use, land-use change and forestry activities between the 2017 and 2018 submissions

27. There are two sets of data on GHG emissions from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol for 2015: the values reported in the 2017 submissions,¹⁴ which have been reviewed, where applicable, and the values reported in the 2018 submissions,¹⁵ which are the latest available data, the review of which is in progress.

28. The net GHG emissions and removals from the above-mentioned activities in 2015 reported by 36 Parties in their 2017 submissions amounted to −500.3 Mt CO₂ eq. Those net GHG removals are 1.6 per cent higher than reported by the same Annex B Parties¹⁶ for 2015 in their 2018 submissions (−508.0 Mt CO₂ eq). The change in value was caused primarily by the recalculations that Parties applied to their GHG inventories.

¹⁴ In their 2017 annual submissions, Belarus and Monaco did not submit information on GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol.

¹⁵ In its 2018 annual submission, Belarus did not submit information on GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol.

¹⁶ This comparison could not include Belarus and Monaco as their reports did not provide information on GHG emissions and removals from LULUCF activities under Article 3, paragraph 3, forest management under Article 3, paragraph 4, and, if any, elected activities under Article 3, paragraph 4, of the Kyoto Protocol in their 2017 annual submissions.

C. Transactions and holdings of Kyoto Protocol units

29. This section provides a provisional overview¹⁷ of additions to and subtractions from the assigned amount pursuant to Article 3, paragraphs 7 bis, 8 and 8 bis, in the Doha Amendment at the end of 2017 for the 34 Annex B Parties that reported their SEF tables with information on Kyoto Protocol units in 2018.

30. In this section, aggregated quantities of Kyoto Protocol units and counts of Parties include the individual member States of the European Union and Iceland but exclude the European Union in order to avoid double counting.

1. Transactions of Kyoto Protocol units

31. Decision 3/CMP.11 classifies transactions of Kyoto Protocol units into two categories: internal and external. An internal transaction does not involve another national registry, whereas an external transaction involves the transaction of Kyoto Protocol units from one national registry to another.

32. Between 1 January and 31 December 2017, 12 Parties executed at least one form of internal transaction. All transactions were related to the cancellation of Kyoto Protocol units, which were reported under the voluntary cancellation account. Twelve Parties, of which nine are European Union member States, transferred a total quantity of 3.8 million CERs into the voluntary cancellation account. Similarly, three European Union member States transferred a total quantity of 0.04 million ERUs into the “voluntary cancellation” account.

33. Table 6 provides a summary of information on the total quantities of Kyoto Protocol units and the number of Parties involved in external transactions that occurred between 1 January and 31 December 2017.

Table 6
Total Kyoto Protocol units acquired or transferred through external transactions between 1 January and 31 December 2017^a

Transaction type	Kyoto Protocol units by external transaction type (Mt CO ₂ eq)					
	AAUs	ERUs	RMUs	CERs ^b	tCERs	ICERs
Addition	Quantities acquired or forwarded ^b	0	5.38	0	62.56	0
	Number of Parties involved	0	3	0	18	0
Subtraction	Quantities transferred	0	5.38	0	45.86	0
	Number of Parties involved	0	2	0	18	0

Abbreviations: AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit, ICER = long-term certified emission reduction, RMU = removal unit, tCER = temporary certified emission reduction.

^a The transaction quantities and Party counts shown in this table exclude the European Union but include its individual member States and Iceland in order to avoid double counting.

^b CERs are forwarded by the clean development mechanism registry.

2. Holdings of Kyoto Protocol units by holding account type as at 31 December 2017

34. For the Annex B Parties that reported information on Kyoto Protocol units pursuant to decisions 13/CMP.1 and 15/CMP.1, there were 271.53 million Kyoto Protocol units in national registries of Parties included in Annex I by the end of 2017, which comprised 5.79 million AAUs (in the previous period surplus reserve account of one Party), 78.01 million ERUs (66.12 million in the Party holding account of 8 Parties, 11.86 million in the entity holding account of 15 Parties and 0.04 million in the voluntary cancellation account of 3 Parties) and 187.72 million CERs (125.62 million in the Party holding account of 16 Parties, 55.50 million in the entity holding account of 20 Parties and 6.60 million in the voluntary cancellation account of 15 Parties).

¹⁷ At the time of the preparation of this report, the annual review of the information reported by Annex B Parties in 2018 was still in progress.

35. A summary of the total quantities of the different Kyoto Protocol units by account type as at 31 December 2017 for Annex B Parties¹⁸ is provided in table 7. Table 8 shows the breakdown of total Kyoto Protocol units by Party.

36. Detailed information on the status of accounts for each Annex B Party can be found in document FCCC/KP/CMP/2018/5/Add.1.

Table 7

Summary of total quantities^a of Kyoto Protocol units by account type for Annex B Parties as at 31 December 2017

(Mt CO₂ eq)

Account type	AAUs	ERUs	RMUs	CERs	tCERs	ICERs
Party holding accounts	0	66.12	0	125.62	0	0
Entity holding accounts	0	11.86	0	55.50	0	0
Retirement account	0	0	0	0	0	0
Previous period surplus reserve account	5.79					
Article 3.3/3.4 net source cancellation account	0	0	0	0		
Non-compliance cancellation account	0	0	0	0		
Voluntary cancellation account	0	0.04	0	6.60	0	0
Cancellation account for remaining units after carry-over	0	0	0	0	0	0
Article 3.1 ter and quarter ambition increase cancellation account	0					
Article 3.7 ter cancellation account	0				0	
tCER cancellation account for expiry						0
ICER cancellation account for expiry						0
ICER cancellation account for reversal of storage						0
ICER cancellation account for non-submission of certification report						0
tCER replacement account for expiry	0	0	0	0	0	
ICER replacement account for expiry	0	0	0	0		
ICER replacement account for reversal of storage	0	0	0	0		0
ICER replacement account for non-submission of certification report	0	0	0	0		0
Total	5.79	78.01	0	187.72	0	0

Abbreviations: AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit, ICER = long-term certified emission reduction, RMU = removal unit, tCER = temporary certified emission reduction.

^a “Total quantities” refers to the sum of the Kyoto Protocol units in each account type for Annex B Parties, excluding the European Union but including its individual member States and Iceland.

¹⁸ As at 31 August 2018, Belarus and Kazakhstan had not yet submitted SEF tables for the second commitment period of the Kyoto Protocol for the period from 1 January to 31 December 2017.

Table 8
Total quantities^a of Kyoto Protocol units for Annex B Parties as at 31 December 2017

Annex B Party	Total quantity by unit type (Mt CO ₂ eq)					
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs
Australia	0	0	0	13.41	0	0
Austria	0	0	0	2.50	0	0
Belarus ^b	—	—	—	—	—	—
Belgium	0	3.27	0	17.16	0	0
Bulgaria	0	0.62	0	0.05	0	0
Croatia	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0
Czechia	0	0	0	0	0	0
Denmark	0	0	0	0.29	0	0
Estonia	0	0	0	0	0	0
European Union	0	0	0	89.47	0	0
Finland	0	2.92	0	8.77	0	0
France	0	0	0	0.16	0	0
Germany	0	0.03	0	3.24	0	0
Greece	0	0	0	0	0	0
Hungary	0	3.88	0	5.34	0	0
Iceland	0	0	0	0	0	0
Ireland	0	0.07	0	5.26	0	0
Italy	0	1.11	0	4.10	0	0
Kazakhstan ^b	—	—	—	—	—	—
Latvia	0	0.01	0	0.02	0	0
Liechtenstein	0	0	0	0.21	0	0
Lithuania	0	2.33	0	0.25	0	0
Luxembourg	0	0	0	1.47	0	0
Malta	0	0	0	0	0	0
Monaco	0	0	0	0	0	0
Netherlands	0	5.35	0	3.55	0	0
Norway	0	0.82	0	16.72	0	0
Poland	0	37.57	0	42.97	0	0
Portugal	0	0	0	0	0	0
Romania	0	17.87	0	8.69	0	0
Slovakia	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0
Spain	0	2.17	0	17.03	0	0
Sweden	0	0	0	11.34	0	0
Switzerland	5.79	0	0	21.66	0	0
Ukraine	0	0	0	0	0	0
United Kingdom	0	0.00	0	3.54	0	0

Abbreviations: AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit, ICER = long-term certified emission reduction, RMU = removal unit, tCER = temporary certified emission reduction.

^a “Total quantities” refers to the sum of the Kyoto Protocol units in each account type for each Annex B Party.

^b Party had not submitted the standard electronic format tables for 2017 as at 31 August 2018.