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Framework Convention on Climate Change

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Report on the individual review of the annual submission of Greece submitted in 2017*

Note by the expert review team

Summary

Each Party included in Annex I to the Convention must submit an annual greenhouse gas (GHG) inventory covering emissions and removals of GHG emissions for all years from the base year (or period) to two years before the inventory due date (decision 24/CP.19). Parties included in Annex I to the Convention that are Parties to the Kyoto Protocol are also required to report supplementary information under Article 7, paragraph 1, of the Kyoto Protocol with the inventory submission due under the Convention. This report presents the results of the individual inventory review of the 2017 annual submission of Greece, 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 6 to 11 September 2017 in Bonn, Germany.

* In the symbol for this document, 2017 refers to the year in which the inventory was submitted, not to the year of publication.

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Abbreviations and acronyms

2006 IPCC Guidelines	*2006 IPCC Guidelines for National Greenhouse Gas Inventories*
AAU	assigned amount unit
AD	activity data
Annex A sources	source categories included in Annex A to the Kyoto Protocol
AR	afforestation and reforestation
Article 8 review guidelines	"Guidelines for review under Article 8 of the Kyoto Protocol"
CER	certified emission reduction
CH_4	methane
CM	cropland management
COD	chemical oxygen demand
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CPR	commitment period reserve
CRF	common reporting format
DOC	degradable organic carbon
EF	emission factor
ERT	expert review team
ERU	emission reduction unit
EU ETS	European Union Emissions Trading System
Eurocontrol	European Organisation for the Safety of Air Navigation
F	fraction of methane in generated landfill gas (volume fraction)
F-gases	fluorinated gases
$F_{IND-COM}$	fraction of industrial and commercial co-discharged protein in the sewer system wastewater
FM	forest management
FMRL	forest management reference level
$F_{NON-CON}$	fraction of non-consumed protein added to wastewater
GHG	greenhouse gas
GM	grazing land management
HFCs	hydrofluorocarbons
HWP	harvested wood products
IE	included elsewhere
IEF	implied emission factor
IPCC	Intergovernmental Panel on Climate Change
IPCC good practice guidance	*Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*
IPPU	industrial processes and product use
k	methane generation rate
KP-LULUCF activities	activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol
LULUCF	land use, land-use change and forestry
MCF	methane correction factor
N	nitrogen
NA	not applicable
NE	not estimated
NF_3	nitrogen trifluoride
NIR	national inventory report

NO	not occurring
N_2O	nitrous oxide
PFCs	perfluorocarbons
QA/QC	quality assurance/quality control
Revised 1996 IPCC Guidelines	*Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*
RMU	removal unit
RV	revegetation
SEF	standard electronic format
SF_6	sulfur hexafluoride
SIAR	standard independent assessment report
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC Annex I inventory reporting guidelines	"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories"
UNFCCC review guidelines	"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention"
WDR	wetland drainage and rewetting
Wetlands Supplement	*2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*
Ym	methane conversion rate

I. Introduction[1]

1. This report covers the review of the 2017 annual submission of Greece organized by the secretariat, in accordance with the Article 8 review guidelines (decision 22/CMP.1, as revised by decision 4/CMP.11). In accordance with the Article 8 review guidelines, this review process also encompasses the review under the Convention as described in the UNFCCC review guidelines, particularly in part III thereof, namely the "UNFCCC guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention" (decision 13/CP.20). The review took place from 6 to 11 September 2017 in Bonn, Germany, and was coordinated by Mr. Nalin Srivastava, Ms. Claudia do Valle and Ms. Karen Ortega (secretariat). Table 1 provides information on the composition of the ERT that conducted the review of Greece.

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

Area of expertise	*Name*	*Party*
Generalist	Ms. Batima Punsalmaa	Mongolia
	Ms. Regine Röthlisberger	Switzerland
Energy	Mr. Christo Christov	Bulgaria
	Ms. Renata Patricia Soares Grisoli	Brazil
	Mr. Jos Olivier	Netherlands
	Mr. Tomoki Takahashi	Japan
IPPU	Ms. Valentina Idrissova	Kazakhstan
	Ms. Eva Krtková	Czechia
	Mr. Lorenz Moosmann	Austria
	Mr. Ole-Kenneth Nielsen	Denmark
Agriculture	Mr. Abdulkadir Bektas	Turkey
	Ms. Sanaa Enkhtaivan	Mongolia
	Ms. Olga Gavrilova	Estonia
LULUCF	Mr. Kevin Black	Ireland
	Mr. Emil Cienciala	Czechia
	Mr. Nagmeldin Elhassan	Sudan
	Mr. Doru Leonard Irimie	Romania
Waste	Mr. Richard Claxton	United Kingdom of Great Britain and Northern Ireland
	Mr. Jose Manuel Ramirez Garcia	Spain
	Ms. Violeta Hristova	Bulgaria
Lead reviewers	Ms. Idrissova	
	Mr. Nielsen	

[1] At the time of publication of this report, Greece had submitted its instrument of ratification of the Doha Amendment; however, the amendment had not yet entered into force. The implementation of the provisions of the Doha Amendment is therefore considered in this report in the context of decision 1/CMP.8, paragraph 6, pending the entry into force of the amendment.

2. The basis of the findings in this report is the assessment by the ERT of the consistency of the Party's 2017 annual submission with the Article 8 review guidelines. The ERT has made recommendations that Greece resolve the findings related to issues,[2] including issues designated as problems.[3] Other findings, and, if applicable, the encouragements of the ERT to Greece to resolve them, are also included.

3. A draft version of this report was communicated to the Government of Greece, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

4. Annex I shows annual GHG emissions for Greece, including totals excluding and including the LULUCF sector, indirect CO_2 emissions and emissions by gas and by sector. Annex I also contains background data related to emissions and removals from KP-LULUCF activities, if elected, by gas, sector and activity for Greece.

5. Information to be included in the compilation and accounting database can be found in annex II.

II. Summary and general assessment of the 2017 annual submission

6. Table 2 provides the assessment by the ERT of the annual submission with respect to the tasks undertaken during the review. Further information on the issues identified, as well as additional findings, may be found in tables 3 and 5.

Table 2
Summary of review results and general assessment of the inventory of Greece

Assessment				*Issue or problem ID#(s) in table 3 and/or 5*[a]
Dates of submission	Original submission: 11 April 2017 (NIR), 11 April 2017, Version 1 (CRF tables), 15 May 2017 (SEF-CP2-2016)			
Review format	Centralized			
Application of the requirements of the UNFCCC Annex I inventory reporting guidelines and Wetlands Supplement (if applicable)	1.	Have any issues been identified in the following areas:		
		(a) Identification of key categories	No	
		(b) Selection and use of methodologies and assumptions	Yes	I.14, A.19, L.7, L.9
		(c) Development and selection of EFs	Yes	E.18, L.6
		(d) Collection and selection of AD	Yes	E.9, I.2, I.5, I.6
		(e) Reporting of recalculations	No	
		(f) Reporting of a consistent time series	Yes	E.16, I.2, L.8, W.23
		(g) Reporting of uncertainties, including methodologies	Yes	W.8, W.10
		(h) QA/QC	QA/QC procedures were assessed in the context of the national system (see para. 2 in this table)	

[2] Issues are defined in decision 13/CP.20, annex, paragraph 81.
[3] Problems are defined in decision 22/CMP.1, annex, paragraphs 68 and 69, as revised by decision 4/CMP.11.

Assessment			*Issue or problem ID#(s) in table 3 and/or 5*[a]
	(i) Missing categories/completeness[b]	Yes	G.1, L.2, L.7
	(j) Application of corrections to the inventory	No	
Significance threshold	For categories reported as insignificant, has the Party provided sufficient information showing that the likely level of emissions meets the criteria in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines?	No	E.14, E.15
Description of trends	Did the ERT conclude that the description in the NIR of the trends for the different gases and sectors is reasonable?	No	E.8, I.9, I.13, L.8, W.21, W.24
Supplementary information under the Kyoto Protocol	2. Have any issues been identified related to the national system:		
	(a) The overall organization of the national system, including the effectiveness and reliability of the institutional, procedural and legal arrangements	No	
	(b) Performance of the national system functions	No	
	3. Have any issues been identified related to the national registry:		
	(a) Overall functioning of the national registry	No	
	(b) Performance of the functions of the national registry and the technical standards for data exchange	No	
	4. Have any issues been identified related to reporting of information on ERUs, CERs, AAUs and RMUs and on discrepancies reported in accordance with decision 15/CMP.1, annex, chapter I.E, taking into consideration any findings or recommendations contained in the SIAR?	No	
	5. Have any issues been identified in matters related to Article 3, paragraph 14, of the Kyoto Protocol, specifically problems related to the transparency, completeness or timeliness of reporting on the Party's activities related to the priority actions listed in decision 15/CMP.1, annex, paragraph 24, including any changes since the previous annual submission?	Yes	G.7
	6. Have any issues been identified related to the reporting of LULUCF activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, as follows:		
	(a) Reporting requirements in decision 2/CMP.8, annex II, paragraphs 1–5	Yes	KL.3, KL.5
	(b) Demonstration of methodological consistency between the reference level and reporting on FM in accordance with decision 2/CMP.7, annex, paragraph 14	Yes	KL.4
	(c) Reporting requirements of decision 6/CMP.9	No	

Assessment			*Issue or problem ID#(s) in table 3 and/or 5*[a]
	(d) Country-specific information to support provisions for natural disturbances, in accordance with decision 2/CMP.7, annex, paragraphs 33 and 34	No	
CPR	Was the CPR reported in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1 and decision 1/CMP.8, paragraph 18?	Yes	
Adjustments	Has the ERT applied an adjustment under Article 5, paragraph 2, of the Kyoto Protocol?	No	
	Did the Party submit a revised estimate to replace a previously applied adjustment?	NA	Greece does not have a previously applied adjustment
Response from the Party during the review	Has the Party provided the ERT with responses to the questions raised, including the data and information necessary for the assessment of conformity with the UNFCCC Annex I inventory reporting guidelines and any further guidance adopted by the Conference of the Parties?	Yes	
Recommendation for an exceptional in-country review	On the basis of the issues identified, does the ERT recommend that the next review be conducted as an in-country review?	No	
Questions of implementation	Did the ERT list questions of implementation?	No	

[a] The ERT identified additional issues and/or problems in the energy, IPPU, agriculture, LULUCF and waste sectors and for KP-LULUCF activities that are not listed in this table but are included in table 3 and/or 5.

[b] Missing categories for which methods are provided in the 2006 IPCC Guidelines may affect completeness and are listed in annex III.

III. Status of implementation of issues and/or problems raised in the previous review report

7. Table 3 compiles all the recommendations made in previous review reports that were included in the previous review report, published on 30 August 2017.[4] For each issue and/or problem, the ERT specified whether it believes the issue and/or problem has been resolved by the conclusion of the review of the 2017 annual submission and provided the rationale for its determination, which takes into consideration the publication date of the previous review report and national circumstances.

Table 3
Status of implementation of issues and/or problems raised in the previous review report of Greece

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
General			
G.1	Completeness (G.1, 2016) (G.1, 2015) (table 3, 2014) Completeness	Estimate and report emissions from all mandatory categories.	Not resolved. Greece continues to report emissions and removals from living biomass, deadwood and litter in grassland converted to forest land as well as all pools

[4] FCCC/ARR/2016/GRC.

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
			in cropland converted to settlements as "NE" (see ID# L.2 below).
G.2	NIR (G.10, 2016) (G.10, 2015) Transparency	Add text to all relevant sections of the NIR to explain the reporting of NF_3 emissions.	Not resolved. Greece has not added text in the NIR to explain the reporting of NF_3 emissions. During the review, the Party explained that there is no NF_3 use in Greece.
G.3	Kyoto Protocol units (G.14, 2016) (G.14, 2015) Transparency	Include an updated reference to the location of the required information (full referencing to publicly available account information in accordance with decision 13/CMP.1, annex, paragraph 45).	Resolved. Greece provided updated references to the location of publicly available account information in accordance with decision 13/CMP.1, annex, paragraph 45, in the NIR (section 10.3).
G.4	Kyoto Protocol units (G.15, 2016) (G.15, 2015) Transparency	Update the publicly available information and provide SEF reports for 2014 and 2015 for the second commitment period.	Resolved. Greece provided references to the updated publicly available information on holdings and transactions of Kyoto Protocol units in the NIR (section 10.3). Updated SEF tables for 2014 and 2015 were submitted in April 2016.
Energy			
E.1	1. General (energy sector) – gaseous fuels – CO_2 (E.12, 2016) (E.12, 2015) Comparability	Continue to try to fill the empty cells of the CRF tables or, if necessary, provide information on the problem in the NIR of the next submission.	Resolved. Emissions or notation keys are provided in CRF table 6 for all years of the time series.
E.2	Feedstocks, reductants and other non-energy use of fuels – liquid fuels – CO_2 (E.3, 2016) (E.3, 2015) (31, 2014) (24, 2013) (58, 2012) Comparability	Implement the reallocation of emissions (liquid fuels that were used as feedstocks in ammonia production from the energy sector to the IPPU sector) and transparently document the impact of this reallocation in the relevant categories as well as in the comparison between the reference and sectoral approaches.	Not resolved. Greece continues to report emissions from liquid fuels used as feedstocks in ammonia production in the energy sector instead of in the IPPU sector. During the 2016 and 2017 reviews, the Party provided the ERTs with information on the difficulties in identifying the amount of liquid feedstocks associated with ammonia production in 'Plant B' (one of the plants producing ammonia), stating that in the past, minor amounts of liquid fuels were used for ammonia production at this plant and these were included in the energy balance. It is difficult to obtain historical values for Plant B because of its closure (see ID# E.17 in table 5).
E.3	1.A.1.a.i Electricity generation – solid fuels – CO_2 (E.14, 2016) (E.14, 2015) Transparency	Include in the NIR: the rationale for using plant-specific data (oxidation factor value of 98 per cent for lignite); a link to the study conducted by the Public Power Corporation (1994); and a general description of the development of the oxidation factor.	Not resolved. Greece did not address this recommendation in its submission.
E.4	1.A.1.b Petroleum	Include in the NIR a transparent	Not resolved. Greece did not address this

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
	refining – liquid fuels – CH_4 (E.15, 2016) (E.15, 2015) Transparency	explanation of the reallocation of these emissions.	recommendation in its submission.
E.5	1.A.1.b Petroleum refining – liquid fuels – CO_2 (E.16, 2016) (E.16, 2015) Transparency	Identify the reasons for the inter-annual changes in the CO_2 IEF between 2012 and 2013 of 4.2 per cent, ensure that the time series is consistent, if necessary, and include in the NIR an explanation for the changes.	Not resolved. During the review, Greece informed the ERT that, as indicated in the NIR (note 1 of table 3.13), a recent upgrade project in one of the four petroleum refineries resulted in a change in the EF for liquid fuel for CO_2 emissions from petroleum refining. The ERT notes that this information was not provided in the NIR.
E.6	1.A.1.c Manufacture of solid fuels and other energy industries – biomass fuels – CO_2 (E.4, 2016) (E.4, 2015) (37, 2014) Transparency	Transparently document in the NIR the methods used to estimate and report CH_4 emissions from charcoal production.	Resolved. As there are no methods for the estimation of combustion emissions from charcoal production in the 2006 IPCC Guidelines and charcoal production is negligible, Greece reported these emissions using the notation key "NO".
E.7	1.A.2.b Non-ferrous metals – gaseous fuels – N_2O (E.17, 2016) (E.17, 2015) Accuracy	Correct the identified error in the N_2O IEF as well as include information on the internal review in the QA/QC section of the NIR in the next submission.	Resolved. Greece corrected the error identified in the N_2O IEF in CRF table 1.A(a)s2 for the entire time series. The Party did not, however, provide the requested information on the internal review in the QA/QC section of the NIR (section 3.2.4.7). The ERT notes that this information is no longer relevant and need not be provided.
E.8	1.A.2.f Non-metallic minerals – liquid fuels – CO_2 (E.18, 2016) (E.18, 2015) Transparency	Include an explanation for the inter-annual change of the CO_2 IEF between 2003/2004 and 2012/2013 in the next submission.	Not resolved. Greece did not include the requested explanation for the inter-annual change of the CO_2 IEF in its submission. During the review, Greece provided this information to the ERT.
E.9	1.A.3.b Road transportation – liquid fuels – CO_2 (E.5, 2016) (E.5, 2015) (33, 2014) Accuracy	Put measures in place to reduce statistical errors in the fuel data and improve the accuracy of LPG consumption in the energy balance.	Resolved. As explained in the NIR (section 3.2.5.2, p.140) and to the ERT during the review, Greece addressed the issue of inconsistency between the statistical and calculated fuel consumption data stemming from smuggling and other illegal uses using specific legal measures. As a consequence, as shown by a comparison of the statistical with the calculated data, since 2014, the fuel consumption data are consistent and thus it is no longer necessary to apply additional measures to avoid statistical errors.
E.10	1.A.3.b Road transportation – liquid fuels – CO_2 (E.6, 2016) (E.6, 2015) (33, 2014) Transparency	Present in tabular format a comparison of the results of fuel consumption calculations showing those results estimated using the COPERT model and the energy balance.	Resolved. Greece provided the information on the fuel consumption calculations using the energy balance and the COPERT model for gasoline, diesel and LPG in the NIR (section 3.2.5.2).

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
E.11	1.A.3.b Road transportation – liquid fuels – CO_2 (E.7, 2016) (E.7, 2015) (34, 2014) Transparency	Reallocate emissions from ground activities at airports from road transportation to other transportation.	Resolved. During the review, the Party expressed its inability to reallocate these emissions, citing lack of detailed data on them. However, the ERT noted that as these emissions are included in road transportation there is no issue of completeness.
E.12	1.A.4 Other sectors – biomass fuels – CH_4 and N_2O (E.9, 2016) (E.9, 2015) (39, 2014) Transparency	Transparently document in the NIR the methods used to estimate CH_4 and N_2O emissions from charcoal use.	Resolved. Greece provided in the NIR (section 3.2.4.5) a description of the methods used to estimate CH_4 and N_2O emissions from charcoal use.
E.13	1.B.1.a.2 Surface mines – gaseous fuels – CH_4 (E.19, 2016) (E.19, 2015) Transparency	Include in the submission a transparent description of the methodology used for this category.	Not resolved. The ERT notes that the description of the methodology provided in the 2017 NIR (section 3.3.1.2) is the same as that provided in the 2016 NIR and contains an incorrect description of the methodology used for the estimation of emissions because an EF value of 1.2 t/m^3 is reported instead of 1.3 t/m^3, which Greece actually uses to estimate emissions from post-mining activities.
E.14	1.B.2 Oil and natural gas and other – liquid and gaseous fuels – CO_2, CH_4 and N_2O (E.22, 2016) (E.22, 2015) Transparency	Report these emissions (oil exploration and natural gas exploration) as "NE" and provide explanations in the NIR that show these emissions are below the significance thresholds indicated in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines.	Addressing. Greece reported the fugitive emissions from oil exploration (1.B.2.a.1) using the notation keys "NO, NE" (CO_2) and "NE" (CH_4 and N_2O) in CRF table 1.B.2. Although the Party stated in the NIR (section 3.3.3.2) that CO_2 and CH_4 emissions have been reported as "NE" because they are considered insignificant as per the definition in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines, it did not provide a justification for that determination by estimating the approximate level of emissions using approximate AD and default EFs from the 2006 IPCC Guidelines.
E.15	1.B.2.a.3 Transport – liquid fuels – CO_2 (E.23, 2016) (E.23, 2015) Transparency	Replace the "NA" and "NO" notation keys with the "NE" notation key for CO_2 from the category 1.B.2.a.3 (oil transport) and provide explanations in the NIR that show these emissions are below the significance thresholds indicated in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines.	Addressing. Greece reported the fugitive CO_2 emissions from oil transport (1.B.2.a.3) using the notation keys "NO, NE" in CRF table 1.B.2. Although the Party stated in the NIR (section 3.3.3.2) that CO_2 emissions are considered insignificant as per the definition in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines, it did not provide a justification for that determination by estimating the approximate level of emissions using approximate AD and default EFs from the 2006 IPCC Guidelines.
E.16	International aviation (E.24, 2016) (E.24, 2015)	Ensure the consistency of the time series in accordance with the 2006 IPCC Guidelines by applying the	Resolved. As explained in the NIR (section 3.2.5.2, p.147) and to the ERT during the review, Greece estimated emissions from

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
	Consistency	Eurocontrol data for the years 2005–2015, and transparently describe these changes in the NIR.	international aviation by separating fuel consumption between domestic and international aviation using national energy balance and Eurocontrol data for the periods 1990–2004 and 2005–2015, respectively. For allocation of the landing and take-off cycle, Greece used data from the International Civil Aviation Organization and Eurocontrol for the periods 1990–2010 and 2011–2015, respectively (section 3.2.2, p.103). The ERT accepts the Party's explanation and notes that the consistency of the time series has been ensured in the estimation of emissions from international aviation.
IPPU			
I.1	2.B.10 Other (chemical industry) – CO_2 (I.2, 2016) (I.2, 2015) (51, 2014) Comparability	Continue the work to estimate the amount of liquid fuels used as feedstocks for hydrogen production and report associated CO_2 emissions in other (chemical industry).	Resolved. During the review, the Party explained that it is not possible to separately report the CO_2 emissions from hydrogen production in other (chemical industry) because the amount of liquid fuels used as feedstocks for hydrogen production is reported together with the amount of fuel combusted in the refineries for the period 1990–2004 as provided in the national energy balance (see also ID# I.12 in table 5).
I.2	2.F Product uses as substitutes for ozone-depleting substances – HFCs (I.4, 2016) (I.4, 2015) (46, 2014) (36, 2013) Consistency	Implement the results of the new survey (to be published in 2015) in the annual submission.	Addressing. Greece did not include the results from the new survey in the NIR. However, the Party explained in the NIR that it is making efforts to do so (e.g. data on refrigeration and air-conditioning equipment flows are obtained from market surveys) and expects to include such information in the next submission.
I.3	2.F Product uses as substitutes for ozone-depleting substances – HFCs (I.6, 2016) (I.6, 2015) (48, 2014) Transparency	Improve the transparency of the NIR by including information similar to that provided to the ERT during the review on assumptions used in calculating emissions from refrigeration and air-conditioning equipment, including a plan for periodically verifying the expert judgments, because production and operating standards change over the years.	Not resolved. Greece did not provide in the NIR the information requested in the previous review. The ERT noted that the description of this subcategory in the NIR is largely the same (or has even less information) as in the submissions for the years 2014–2016.
I.4	2.F Product uses as substitutes for ozone-depleting substances – HFCs and PFCs (I.10, 2016) (I.10, 2015) Transparency	Provide information in the NIR about recovery of HFCs, including how gases are recovered at end of life and what is done to the recovered gas.	Not resolved. Greece did not provide in the NIR the information requested in the previous review. The ERT noted that the description of this subcategory in the NIR is the same as in the previous submission.

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
I.5	2.F Product uses as substitutes for ozone-depleting substances – HFCs (I.11, 2016) (I.11, 2015) Accuracy	Correct the error in the data entry files input to the CRF Reporter for AD and emissions for the amount of HFC-134a remaining in products at decommissioning in category 2.F.1.f.	Not resolved. Greece did not address the incorrect data for the amount remaining in products at decommissioning for the category 2.F.1.f resulting from a copy and paste error in the previous submission. During the review, the Party informed the ERT that it would attempt to correct the data in the next submission. The ERT believes that future ERTs should consider this issue further to ensure that there is no underestimation of emissions from this activity.
I.6	2.F.1 Refrigeration and air conditioning – HFCs (I.12, 2016) (I.12, 2015) Accuracy	Use the results of the newly published survey on refrigeration in the next annual submission.	Addressing. See ID# I.2 above.
I.7	2.F.2 Foam blowing agents – HFCs (I.8, 2016) (I.8, 2015) (44, 2014) Accuracy	Continue the dialogue with the industry association, the Pan-Hellenic Association of Insulating Companies, in order to increase the percentage of respondents to the survey on imported foam products.	Addressing. Greece did not provide in the NIR information on its communication with the Pan-Hellenic Association of Insulating Companies in order to increase the percentage of respondents to the survey on imported foam products (see also ID# I.2 above).
I.8	2.F.2 Foam blowing agents (I.9, 2016) (I.9, 2015) (44, 2014) Transparency	Provide more information on the representativeness of the respondents to the survey.	Resolved. Greece included the requested information in the NIR (section 4.19.2).
I.9	2.F.2 Foam blowing agents – HFCs (I.13, 2016) (I.13, 2015) Transparency	Provide an updated discussion on the time series of emissions for foam blowing agents in the submission.	Not resolved. During the review, Greece informed the ERT that an explanatory paragraph concerning the historical trends of this category would be included in the NIR of the next submission.
Agriculture			
A.1	3. General (agriculture) (A.10, 2016) (A.10, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	Enhance the QA/QC system and correct all the identified reporting inconsistencies between the NIR and the CRF tables, specifically: (a) Ensure consistent reporting on the tier used to estimate emissions from rice cultivation, field burning of agricultural residues and agricultural soils; (b) Ensure consistent reporting of CH_4 emissions from rice cultivation in table 5.15 of the NIR and CRF table 10.s.1.	Not resolved. Greece did not correct the identified inconsistencies between the NIR and the CRF tables.
A.2	3. General (agriculture)	Correct NIR table 5.3 by including CH_4 emissions from manure	Resolved. Greece included CH_4 emissions from manure management as a key category

ID#	Issue and/or problem classification[a]	Recommendation made in previous review report	ERT assessment and rationale
	(A.11, 2016) (A.11, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	management because this is a key category in level assessment.	identified through level assessment in table 5.3 of the NIR.
A.3	3. General (agriculture) (A.12, 2016) (A.12, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	Correct the typographical errors in the references to the IPCC guidelines.	Resolved. Greece corrected the references to the IPCC good practice guidance to the 2006 IPCC Guidelines in the agriculture sector chapter of the NIR.
A.4	3. General (agriculture) (A.13, 2016) (A.13, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	Correct the typographical error regarding use of the three-year average for animal population for the whole of the period 1990–2014.	Resolved. Greece corrected the references to the three-year average populations of animals to an annual average population for the period 1990–2014 in the NIR.
A.5	3. General (agriculture) (A.14, 2016) (A.14, 2015) Transparency	Improve the transparency of the reporting by including in the NIR an explanation for each category marked as "NO" (prescribed burning of savannahs (category 3.E), mineralization/immobilization associated with loss/gain of soil organic matter (category 3.D.a.5) and liming (category 3.G)).	Not resolved. Greece did not include in the NIR explanations for each category marked as "NO" (3.E., 3.D.a.5 and 3.G). During the review, the Party informed the ERT that it would reconsider this issue in the next submission.
A.6	3.A Enteric fermentation – CH_4 (A.3, 2016) (A.3, 2015) (57, 2014) Transparency	Provide an explanation of how the equation using country-specific values for Ym and digestibility was developed.	Addressing. Greece included information on some parameters used for the estimation of gross energy in the NIR while stating that it used the default value for Ym provided in the 2006 IPCC Guidelines. However, the Party did not include information on the country-specific values for digestibility. During the review, Greece informed the ERT that it would consider providing a detailed explanation in the next submission.
A.7	3.A Enteric fermentation – CH_4 (A.15, 2016) (A.15, 2015) Transparency	Report in the NIR all parameters used to estimate country-specific EFs, for example in a tabular format, and by providing an in-depth explanation of the method used.	Addressing. See ID# A.6 above.
A.8	3.A.4 Other livestock – CH_4 (A.5, 2016) (A.5, 2015) (59, 2014) Transparency	Show all EFs in tabular format, and also provide detailed information to explain the reasons for using the Swiss EF for poultry.	Addressing. Greece provided information on EFs for all animals except dairy cattle, non-dairy cattle and sheep in the NIR (table 5.12). However, the Party did not include in the NIR the explanation of the reasons for using the Swiss EF for poultry that was provided to the ERT during the previous

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
			review.
A.9	3.B Manure management – CH_4 (A.9, 2016) (A.9, 2015) (64, 2014) Transparency	Include additional information on the CH_4 EFs and parameters used for cattle and sheep in tabular format.	Not resolved. See ID# A.10 below.
A.10	3.B Manure management – CH_4 (A.16, 2016) (A.16, 2015) Transparency	Include in the NIR all parameters used to estimate country-specific EFs, for example in a tabular format, and provide an in-depth explanation of the methodology used.	Not resolved. Greece did not provide information on the parameters used to estimate its country-specific EFs in the NIR. During the review, the Party provided additional information on the parameters in tabular format and informed the ERT that the additional information on these parameters will be included in the NIR of the next submission.
A.11	3.B.4 Other livestock – CH_4 (A.17, 2016) (A.17, 2015) Transparency	Explain the estimates for CH_4 emissions from manure management of goats in the NIR.	Resolved. Greece included information on the estimation of CH_4 emissions from goats in the NIR (section 5.3.2).
A.12	3.B Manure management – N_2O (A.7, 2016) (A.7, 2015) (61, 2014) Transparency	Provide all the N_2O EFs and parameters used for calculating N_2O emissions, for example in tabular format.	Addressing. Although Greece included in the NIR (sections 5.3.2 and 5.4.6) information on the EFs used for calculating direct and indirect N_2O emissions, it provided only a part of the information in the NIR on the parameters applied for the estimation of the N excretion rates provided during the review (see also ID# A.18 in table 5).
A.13	3.B Manure management – N_2O (A.18, 2016) (A.18, 2015) Transparency	Include in the NIR an explanation regarding total N excretion and N excretion rate as well as all the parameters used to estimate country-specific EFs, for example in a tabular format.	Addressing. Greece included in the NIR information on only some of the parameters (percentage of crude protein in diet and gross energy of dairy cattle) used to estimate the country-specific EFs. The Party did not include in the NIR the explanation regarding the total N excretion and N excretion rate provided to the ERT during the previous review.
A.14	3.D.a Direct N_2O emissions from managed soils – N_2O (A.8, 2016) (A.8, 2015) (62, 2014) Transparency	Improve the transparency of reporting by including in the annual submission all equations, all factors and the N values of all AD applied to soils that are used to estimate N_2O emissions.	Not resolved. Greece did not provide all equations, all factors and the N values of all AD applied to soils.
A.15	3.D.a Direct N_2O emissions from managed soils – N_2O (A.19, 2016) (A.19, 2015) Transparency	Include a detailed explanation on the method used to estimate the amount of N applied to soils from each source (animal manure applied to soils and N in crop residues returned to soils). Include the equations used to estimate direct N_2O emissions	Addressing. Although Greece included some information on the data sources for N inputs, it did not provide a detailed explanation in its NIR (section 5.5.2) on the method used to estimate the amount of N applied to soils from each source. The Party did not include in the NIR the equations used to estimate direct N_2O emissions from

ID#	Issue and/or problem classification[a]	Recommendation made in previous review report	ERT assessment and rationale
		from managed soils.	managed soils.
A.16	3.D.a.2b Sewage sludge applied to soils – N_2O (A.20, 2016) (A.20, 2015) Transparency	Include the explanation provided to the ERT regarding the application of sewage sludge in agriculture as fertilizer based on studies conducted in the period 2004–2009 in the NIR to improve the transparency of the inventory.	Not resolved. Greece did not include in the NIR the information related to sewage sludge application (e.g. amount applied, EF, estimation methodology, AD source and emission estimates) provided during the previous review. During the current review, the Party explained that detailed information on sewage sludge will be included in the next submission (see also ID# A.18 in table 5).
A.17	3.F Field burning of agricultural residues – CH_4 and N_2O (A.21, 2016) (A.21, 2015) Transparency	Include in the NIR the explanation provided to the ERT to improve the transparency of the inventory, especially regarding the use of the IPCC good practice guidance and the Revised 1996 IPCC Guidelines.	Not resolved. Greece did not include in the NIR the information regarding the estimation methodology for field burning of agricultural residues (crop production, parameters applied and detailed estimation methodology), especially regarding the use of the default factors from the IPCC good practice guidance and the Revised 1996 IPCC Guidelines. During the review, the Party explained that this information would be included in the next submission.
LULUCF			
L.1	4. General (LULUCF) (L.1, 2016) (L.1, 2015) (67, 2014) (57, 2013) (98, 2012) Transparency	Provide transparent information on how the annual land-use change matrices have been developed and report a complete set of annual land-use change matrices in the next annual submission.	Resolved. Greece included the requested information in the NIR (section 6.2).
L.2	4. General (LULUCF) (L.3, 2016) (L.3, 2015) (70, 2014) (59, 2013) Completeness	Make efforts to collect the necessary information and report the AD and emission/removal estimates for the carbon stock changes in the living biomass and dead organic matter pools in grassland converted to forest land; and carbon stock changes in living biomass in cropland converted to settlements in future annual submissions.	Addressing. Greece did not estimate the carbon stock changes in the living biomass and dead organic matter pools in grassland converted to forest land and in living biomass in cropland converted to settlements (i.e. it reported these as "NE"). The Party provided an explanation in the NIR (section 6.4.2.2) that it considers the conversion of grassland to forest land as natural forest expansion and thus not directly human-induced. During the review, Greece informed the ERT that it was exploring options to report the carbon stock changes in living biomass in cropland converted to settlements in future submissions (see ID# L.7 in table 5).
L.3	4. General (LULUCF) (L.4, 2016) (L.4, 2015) (72, 2014) (60, 2013) Transparency	Provide detailed and transparent information on the uncertainty assessment for the LULUCF sector.	Resolved. Greece provided in the NIR (section 6.4.3 and annex IV) detailed information on the uncertainty assessment for the LULUCF sector.
L.4	4.A Forest land – General	Ensure consistency between the CRF	Resolved. The ERT did not find any issues relating to inconsistency between the CRF

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
	(L.7, 2016) (L.7, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	tables and the NIR.	tables and the NIR.
L.5	4.A Forest land – CO_2 (L.8, 2016) (L.8, 2015) Transparency	Classify grassland, wetlands and other land as "managed" and "unmanaged" subcategories as suggested in paragraph 67(b) of the 2014 review report (FCCC/ARR/2014/GRC).	Resolved. Greece classified and reported forest land in "managed" and "unmanaged" subcategories. The Party considers all of its grassland as "unmanaged". The ERT does not consider classifying wetlands and other land as "managed" or "unmanaged" as being relevant to the development of the GHG inventory for the LULUCF sector.
L.6	4.A Forest land – CO_2 (L.9, 2016) (L.9, 2015) Accuracy	Use EFs instead of IEFs and apply the method provided in the 2006 IPCC Guidelines to improve accuracy.	Not resolved. Greece continued to use IEFs from Italy instead of EFs as recommended by the ERT in the 2016 annual review report. During the review, Greece explained that this issue would be examined in the next submission.
Waste			
W.1	5. General (waste) (W.1, 2016) (W.1, 2015) (78, 2014) (75, 2013) Adherence to the UNFCCC Annex I inventory reporting guidelines	Enhance QC procedures to prevent incorrect or inconsistent numbers in figures and tables in the NIR (e.g. in table 8.18 the column "Total" contains incorrect values) in future annual submissions.	Not resolved. The ERT noted that Greece did not address the inconsistency in the numbers in figures and tables in the NIR. The ERT noted that the Party deleted the "Total" column in the table referred to by the previous ERT (table 7.17 in the 2017 NIR), which should be retained with corrected values rather than being deleted.
W.2	5.A Solid waste disposal on land – CH_4 (W.2, 2016) (W.2, 2015) (79, 2014) (78 and 79, 2013) Adherence to the UNFCCC Annex I inventory reporting guidelines	Enhance QC procedures to prevent inconsistencies (e.g. the waste amounts presented in the flow chart do not correspond to the waste amounts in CRF table 6.A, and there are similar discrepancies for other waste types (industrial, construction and demolition)) in future annual submissions.	Not resolved. Greece did not address the inconsistencies between the information presented in the NIR and the CRF tables. The ERT observed a number of such inconsistencies in the submission (e.g. between table 7.5 in the NIR and CRF table 5.A).
W.3	5.A Solid waste disposal on land – CH_4 (W.6, 2016) (W.6, 2015) Transparency	Explain how CH_4 emissions from industrial and construction waste disposal are derived.	Resolved. Greece provided the requested explanation in the NIR (section 7.2.2, pp.381–383).
W.4	5.A Solid waste disposal on land – CH_4 (W.7, 2016) (W.7, 2015) Transparency	Provide information on how to determine the landfilled amounts in the NIR.	Resolved. Greece included the requested information in the NIR (section 7.2.2, p.378).
W.5	5.A Solid waste disposal on land – CH_4 (W.8, 2016) (W.8,	Provide more detailed justifications for the following cases: (1) the daily per capita waste generation by	Not resolved. Although Greece did not provide the requested information in the NIR, during the review it provided adequate

ID#	Issue and/or problem classification[a]	Recommendation made in previous review report	ERT assessment and rationale
	2015) Transparency	tourists, which has been assumed to be 2.1 kg/person/day since 1990; and (2) the municipal solid waste generation rate, which is assumed to change annually by 0.028 kg/person/day.	information on this issue, which the ERT noted would add transparency to the Party's future submissions. For example, Greece explained that it estimated the tourist population in permanent population terms by dividing by 365 the total annual tourist overnight stays by foreign tourists collected by the national statistical authority.
W.6	5.A Solid waste disposal on land – CH_4 (W.9, 2016) (W.9, 2015) Transparency	Improve the documentation of the justifications for: (1) the share of putrescibles, which is assumed to decrease by 0.3 per cent annually; (2) the share of paper and plastics, which is assumed to increase by 0.2 per cent annually; and (3) the share of garden waste, park waste and other non-food organic putrescibles, wood and textiles, which is assumed to be constant.	Not resolved. Although Greece did not provide the requested information in the NIR, during the review it provided detailed information on this issue, which the ERT noted would add transparency to the Party's future submissions.
W.7	5.A Solid waste disposal on land – CH_4 (W.10, 2016) (W.10, 2015) Accuracy	Justify in the NIR why a higher F value than the default is adopted for sewage sludge.	Resolved. Greece stated in the NIR (section 7.3.2, p.388) that it used an F value of 0.6 (60 per cent). However, during the review, the Party explained that it used the default F value of 50 per cent for the estimation of emissions and that the F value reported in the NIR is incorrect (see ID# W.19 in table 5).
W.8	5.A Solid waste disposal on land – CH_4 (W.11, 2016) (W.11, 2015) Accuracy	Correct the uncertainty values for CH_4 emissions, if necessary, or justify the low values reported.	Not resolved. Greece did not correct the uncertainty values for CH_4 emissions or justify the low values reported.
W.9	5.A Solid waste disposal on land – CH_4 (W.12, 2016) (W.12, 2015) Transparency	Provide in the NIR supporting information on how the CH_4 recovery data are obtained.	Resolved. Greece provided detailed information on this issue in the NIR (section 7.2.2, p.379).
W.10	5.C.1 Waste incineration – CO_2, CH_4 and N_2O (W.13, 2016) (W.13, 2015) Adherence to the UNFCCC Annex I inventory reporting guidelines	Review the uncertainties and correct them if necessary, or justify the reported values.	Not resolved. Greece neither corrected the uncertainty values nor provided a justification for them.
W.11	5.D Wastewater treatment and discharge – CH_4 (W.3, 2016) (W.3, 2015) (80, 2014) (80, 2013)	Include all important parameters (especially MCF) for all types of treatment in the NIR to further increase the transparency of reporting.	Addressing. Although Greece included additional information on some parameters (e.g. total organic waste, EF, CH_4 recovery) in the NIR (section 7.3.2), it did not include information on all the relevant parameters for all types of treatment,

ID#	*Issue and/or problem classification*[a]	*Recommendation made in previous review report*	*ERT assessment and rationale*
	Transparency		including MCF values.
W.12	5.D Wastewater treatment and discharge – CH_4 (W.4, 2016) (W.4, 2015) (81, 2014) Comparability	Change the reporting on CH_4 recovery either by providing an estimate of the amount of recovered CH_4, or by replacing the currently used notation key with "NE" for the case where no numerical estimate is available.	Not resolved. Greece continued to report CH_4 recovery using the notation key "NO" in CRF table 5.D (see ID# W.29 in table 5).
W.13	5.D Wastewater treatment and discharge – CH_4 (W.5, 2016) (W.5, 2015) (82, 2014) Comparability	Increase the consistency of information between the NIR and the CRF tables, preferably by also reporting the total organic waste from the relevant industries in the CRF tables.	Not resolved. Greece did not provide the requested information in CRF table 5.D (e.g. for 2015 total organic product, the sum of COD values is 249.34 kt in table 7.19 of the NIR and 158.39 kt in CRF table 5.D).
W.14	5.D Wastewater treatment and discharge – CH_4 (W.14, 2016) (W.14, 2015) Accuracy	Estimate MCF values for aerobic systems in Greece.	Resolved. As reported in the NIR (section 7.3.5, p.394), Greece performed recalculations following the recommendation from the previous review.
KP-LULUCF			
KL.1	Forest management – CO_2 (KL.1, 2016) (KL.1, 2015) Transparency	Report in the NIR information on the reason and justification for using a different period for calibrating emissions from natural disturbances for accounting for afforestation, deforestation and FM in accordance with decision 2/CMP.7, annex, paragraph 33.	Resolved. Although the NIR (sections 9.4.4 and 9.5.2.1) states that Greece used the calibration periods 1994–2015 and 1990–2015 for AR and FM, respectively, the Party explained in the NIR (footnote 10, p.423) that the afforestation activity occurred for the first time in 1994 so the same calibration period is used for accounting for afforestation and FM.
KL.2	Forest management – CO_2 (KL.2, 2016) (KL.2, 2015) Transparency	Provide information on the uncertainty assessment for KP-LULUCF activities in the NIR.	Resolved. Greece provided in the NIR (section 1.7.2 and annex IV) detailed information on the uncertainty assessment for KP-LULUCF activities.

[a] References in parentheses are to the paragraph(s) and the year(s) of the previous review report(s) where the issue and/or problem was raised. Issues are identified in accordance with paragraphs 80–83 of the UNFCCC review guidelines and classified as per paragraph 81 of the same guidelines. Problems are identified and classified as problems of transparency, accuracy, consistency, completeness or comparability in accordance with paragraph 69 of the Article 8 review guidelines, in conjunction with decision 4/CMP.11.

IV. Issues identified in three successive reviews and not addressed by the Party

8. In accordance with paragraph 83 of the UNFCCC review guidelines, the ERT noted that the issues included in table 4 have been identified in three successive reviews, including the review of the 2017 annual submission of Greece, and have not been addressed by the Party.

Table 4
Issues identified in three successive reviews and not addressed by Greece

ID#	*Previous recommendation for the issue identified*	*Number of successive reviews issue not addressed*[a]
General		
G.1	Estimate and report emissions from all mandatory categories	3 (2014–2017)
Energy		
E.2	Implement the reallocation of emissions (liquid fuels that were used as feedstocks in ammonia production from the energy sector to the IPPU sector) and transparently document the impact of this reallocation in the relevant categories as well as in the comparison between the reference and sectoral approaches	5 (2012–2017)
E.11	Reallocate emissions from ground activities at airports from road transportation to other transportation	3 (2014–2017)
IPPU		
I.2	Implement the results of the new survey (to be published in 2015) in the annual submission	4 (2013–2017)
I.3	Improve the transparency of the NIR by including information similar to that provided to the ERT during the review on assumptions used in calculating emissions from refrigeration and air-conditioning equipment, including a plan for periodically verifying the expert judgments, because production and operating standards change over the years	3 (2014–2017)
I.7	Continue the dialogue with the industry association, the Pan-Hellenic Association of Insulating Companies, in order to increase the percentage of respondents to the survey on imported foam products	3 (2014–2017)
Agriculture		
A.6	Provide an explanation of how the equation using country-specific values for Ym and digestibility was developed	3 (2014–2017)
A.8	Show all EFs in tabular format, and also provide detailed information to explain the reasons for using the Swiss EF for poultry	3 (2014–2017)
A.9	Include additional information on the CH_4 EFs and parameters used for cattle and sheep in tabular format	3 (2014–2017)
A.12	Provide all the N_2O EFs and parameters used for calculating N_2O emissions, for example in tabular format	3 (2014–2017)
A.14	Improve the transparency of reporting by including in the annual submission all equations, all factors and the N values of all AD applied to soils that are used to estimate N_2O	3 (2014–2017)

ID#	*Previous recommendation for the issue identified*	*Number of successive reviews issue not addressed*[a]
	emissions	
LULUCF		
L.2	Make efforts to collect the necessary information and report the AD and emission/removal estimates for the carbon stock changes in the living biomass and dead organic matter pools in grassland converted to forest land; and carbon stock changes in living biomass in cropland converted to settlements in future annual submissions	4 (2013–2017)
Waste		
W.1	Enhance QC procedures to prevent incorrect or inconsistent numbers in figures and tables in the NIR (e.g. in table 8.18 the column "Total" contains incorrect values) in future annual submissions	4 (2013–2017)
W.2	Enhance QC procedures to prevent inconsistencies (e.g. the waste amounts presented in the flow chart do not correspond to the waste amounts in CRF table 6.A, and there are similar discrepancies for other waste types (industrial, construction and demolition)) in future annual submissions	4 (2013–2017)
W.11	Include all important parameters (especially MCF) for all types of treatment in the NIR to further increase the transparency of reporting	4 (2013–2017)
W.12	Change the reporting on CH_4 recovery either by providing an estimate of the amount of recovered CH_4, or by replacing the currently used notation key with "NE" for the case where no numerical estimate is available	3 (2014–2017)
W.13	Increase the consistency of information between the NIR and the CRF tables, preferably by also reporting the total organic waste from the relevant industries in the CRF tables	3 (2014–2017)
KP-LULUCF		
	No such issues for KP-LULUCF activities were identified	

[a] The review of the 2016 annual submission was held in conjunction with the review of the 2015 annual submission. Since the reviews of the 2015 and 2016 annual submissions were not successive reviews, but were held in conjunction, for the purpose of counting successive years in table 4, 2015/2016 are considered as one year.

V. Additional findings made during the 2017 individual inventory review

9. Table 5 contains findings made by the ERT during the individual review of the 2017 annual submission of Greece that are additional to those identified in table 3.

Table 5
Additional findings made during the 2017 individual review of the annual submission of Greece

ID#	*Finding classification*	*Description of the finding with recommendation or encouragement*	*Is finding an issue and/or a problem?[a] If yes, classify by type*
General			
G.5	CRF tables	Greece did not report any information in CRF table 9 ("Completeness – information on notation keys"). During the review, the Party explained that CRF table 9 was not filled owing to issues with some functionalities of the new CRF Reporter software (e.g. inserting comments in cells that contain notation keys) and that it would report complete information in this table in the next submission if the CRF Reporter software allowed it. The ERT noted, however, that, in response to a request for clarification from the ERT, the secretariat confirmed that there was no such problem with the CRF Reporter software for the 2017 submissions. The ERT recommends that Greece report complete information in CRF table 9 in the next submission.	Yes. Comparability
G.6	Article 3, paragraph 14, of the Kyoto Protocol	Greece did not provide information on changes in its reporting of the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol in its annual submission. The ERT noted that the Party provided the same information relating to actions taken to minimize adverse social, environmental and economic impacts on developing country Parties as required under Article 3, paragraph 14, of the Kyoto Protocol in the NIR of the 2016 and 2017 annual submissions. During the review, Greece confirmed that there were no changes in that regard and that it planned to review and update this chapter in the NIR of the next submission. The ERT recommends that Greece, in its annual submission, report any changes in the information provided under Article 3, paragraph 14, in accordance with decision 15/CMP.1, in conjunction with decision 3/CMP.11, and clarify in the NIR if there are no changes in that regard.	Yes. Adherence to reporting guidelines under Article 7, paragraph 1, of the Kyoto Protocol
Energy			
E.17	1.A.2.c Chemicals – liquid fuels – CO_2	Noting the explanation provided by Greece during the review regarding the difficulty in allocating liquid fuels used as feedstocks for ammonia production to the IPPU sector (see ID #E.2 in table 3), and noting that the 2006 IPCC Guidelines recognize that national circumstances might lead to some IPPU emissions being reported in the energy sector (volume 3, chapter 1, section 1.4.4), the ERT concludes that, if properly documented, the Party's current allocation of liquid fuels is acceptable. The ERT recommends that Greece include, in the NIR, the information on the difficulties in identifying the amount of liquid feedstocks associated with ammonia production that was provided to the ERTs during the reviews in 2016 and 2017 and document in the NIR where emissions from liquid fuels used as feedstocks for ammonia production are reported.	Yes. Transparency
E.18	1.A.3.d Domestic navigation – liquid fuels – N_2O	The ERT noted that the IEF for gas/diesel oil for N_2O emissions from inland navigation (30.00 kg/TJ) is much higher than those used by most other countries (2–4 kg/TJ)) as well as the only default EF for liquid fuels for this category (heavy fuel oil) provided in the 2006 IPCC Guidelines (2 kg/TJ). During the review, the Party explained that the NIR (table 3.2)	Yes. Accuracy

ID#	Finding classification	Description of the finding with recommendation or encouragement	Is finding an issue and/or a problem?[a] If yes, classify by type
		describes the methods and EF used in a more detailed and disaggregated manner compared with the information reported in the CRF tables, including by referencing the *EMEP/EEA Air Pollutant Emission Inventory Guidebook* as a source of information. The ERT recommends that Greece either provide transparent information on the reasons for the significant difference between the value of the IEF for gas/diesel oil for N_2O emissions from inland navigation and the default EF value provided in the 2006 IPCC Guidelines, or revise the EFs to make them consistent with the default EFs provided in the 2006 IPCC Guidelines.	
IPPU			
I.10	2. General (IPPU)	The NIR contains several references to the IPCC good practice guidance in the chapter on the IPPU sector (e.g. sections 4.2.2, 4.7 and 4.20.2). The ERT notes, however, that the UNFCCC Annex I inventory reporting guidelines mandate the use of the 2006 IPCC Guidelines. During the review, Greece explained that the references to the IPCC good practice guidance are due to typographical errors and that the correct references should be to the 2006 IPCC Guidelines. The ERT recommends that Greece replace the incorrect references to the IPCC good practice guidance in the chapter on the IPPU sector in the NIR with references to the 2006 IPCC Guidelines.	Yes. Adherence to the UNFCCC Annex I inventory reporting guidelines
I.11	2.A.2 Lime production – CO_2	The ERT noted that the CO_2 IEF values from lime production for Greece for the period 1990–2006 are very high in comparison with those of other European countries with similar production systems (the CO_2 IEF for Greece averaged 0.82 t CO_2/t lime while for other European countries it ranged from .0.44 to 0.81 t CO_2/t lime during this time period). The NIR does not provide an explanation for the high IEF values. During the review, Greece explained that in order to improve time-series consistency, in 2013 it recalculated the emissions for the years prior to 2005, based on the available data from the EU ETS for the years 2005–2009 using the overlap technique from the 2006 IPCC Guidelines. The high values of the IEF stem from the higher values of the EFs for the years 2005–2009 compared with those of recent years from the verified EU ETS reports. The ERT recommends that Greece include in the NIR an explanation for the high IEF values for CO_2 emissions from lime production for the period 1990–2006.	Yes. Transparency
I.12	2.B.10 Other (chemical industry) – CO_2	Greece reported the CO_2 emissions associated with hydrogen production from liquid fuels under the subcategory 1.A.1.b (petroleum refining). The NIR states that CO_2 emissions from hydrogen production are estimated on the basis of the amount of natural gas consumed in the process. During the review, the Party explained that CO_2 emissions from hydrogen production from liquid fuels are reported under the subcategory 1.A.1.b because while disaggregated data on the amount of liquid fuels used for hydrogen production are available from the EU ETS reports for the period 2005–2015, for the period 1990–2004 the amount of liquid fuel used for hydrogen production is reported together with the amount of fuel combusted in the refineries as provided in the national energy balance. It is therefore not possible to report these	Yes. Transparency

ID#	*Finding classification*	*Description of the finding with recommendation or encouragement*	*Is finding an issue and/or a problem?[a] If yes, classify by type*
		emissions separately for the period 1990–2004. The ERT recommends that Greece include in the NIR the explanation for reporting the CO_2 emissions associated with hydrogen production from liquid fuels under the subcategory 1.A.1.b (petroleum refining) provided during the review.	
I.13	2.C.5 Lead production – CO_2	As stated in the NIR (section 4.14), Greece estimated the emissions from lead production using the default EF (0.52 t CO_2/t lead) from the 2006 IPCC Guidelines, which is based on an assumption of 80 per cent of lead produced from the Imperial Smelting Furnace and 20 per cent of lead produced by direct smelting. In addition, the Party used the default EF from the 2006 IPCC Guidelines for the treatment of secondary raw materials (0.20 t CO_2/t lead). The ERT noted, however, that while the IEF for the period 1990–2002 is indeed equal to the default EF from the 2006 IPCC Guidelines (i.e. implying primary lead production), the IEF shows a fluctuating trend in the period 2003–2015, ranging from 0.20 to 0.45 t CO_2/t lead. The ERT further noted that the NIR does not include information on any changes in primary and secondary lead production that could have been responsible for such fluctuations in the IEF values since 2003. During the review, Greece explained that the fluctuations in the IEF values since 2003 are due to changes in lead production, noting that, as reported by the national statistical authority, while there was no secondary production in Greece before 2003, there have been both primary and secondary lead production in all years since 2003, except for 2004. The ERT recommends that Greece explain the changes in the CO_2 IEF values for lead production by including information on the changes in lead production across the time series in the NIR.	Yes. Transparency
I.14	2.G.3 N_2O from product uses – N_2O	As stated in the NIR, Greece estimated the N_2O emissions from product uses based on population using the ratio of N_2O emissions and population (kt N_2O/1,000 population) based on information from four European Parties included in Annex I to the Convention: Austria, Italy, the Netherlands and Spain. While Italy and Spain were chosen on account of their similarities in climate and conditions to Greece, Austria and the Netherlands were selected in order to be conservative in the estimation of emissions. The ERT noted, however, that the Party provided no information in the NIR on its efforts to obtain AD on the total amount of N_2O supplied in a year in order to estimate the N_2O emissions from product uses using the methodology provided in the 2006 IPCC Guidelines. During the review, Greece explained that although population data are updated annually based on the data published by Eurostat, the Party has not undertaken any research so as to be able to estimate these emissions. The ERT recommends that Greece estimate and report N_2O emissions from product uses using the methodology provided in the 2006 IPCC Guidelines based on the total amount of N_2O supplied in a year.	Yes. Accuracy
Agriculture			
A.18	3.B.1 Cattle – N_2O	Greece explained in the NIR (section 5.3.2, p.282) that it calculated the annual N excretion rates for dairy cattle using the tier 1 methodology (volume 4, chapter 10, equation 10.30) and the default N excretion rate for dairy cattle for Western Europe (volume 4, chapter 10, table 10.19) provided in the 2006 IPCC Guidelines. The ERT noted, however, that the NIR (section 5.3.5, p.284) states that following the recommendations of the 2016 European Union review team, Greece recalculated N_2O emissions from manure management for dairy cattle by applying the tier 2 methodology for the	Yes. Adherence to the UNFCCC Annex I inventory reporting

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		estimation of annual N excretion rates provided in the 2006 IPCC Guidelines (volume 4, chapter 10, equations 10.31–10.33) together with country-specific values of gross energy intake for dairy cattle (NIR, section 5.2.2, table 5.7) and the percentage of crude protein in the diet of 16.5 per cent. During the review, the Party confirmed that it did indeed use the tier 2 methodology provided in the 2006 IPCC Guidelines for the calculation of annual N excretion rates for dairy cattle. The ERT recommends that Greece correct the description of the methodology used for the calculation of annual N excretion rates for dairy cattle on page 282 of the NIR to make it consistent with the description on page 284, and clarify that a tier 2 method was applied.	guidelines
A.19	3.B.1 Cattle – N_2O	As mentioned in ID# A.18 above, Greece recalculated the annual N excretion for dairy cattle by applying the tier 2 methodology provided in the 2006 IPCC Guidelines for the estimation of annual N excretion rates (volume 4, chapter 10, equations 10.31–10.33) together with country-specific values of gross energy intake for dairy cattle. The ERT noted that the calculation sheet provided by the Party in response to a request from the ERT showed that it used a different equation than equation 10.31 from the 2006 IPCC Guidelines, resulting in a difference in N_2O emissions of up to 22.8 kt CO_2 eq (for 2004), which is below the threshold of significance in accordance with paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines. As the underestimation was below the threshold for commencement of an adjustment procedure in accordance with decision 22/CMP.1, annex, paragraph 80(b), this issue was not included in the list of potential problems and further questions raised by the ERT. Acknowledging the error during the review, Greece provided the ERT with the correct emission estimates for N_2O emissions from manure management for dairy cattle and explained that the estimates will be revised in the next submission. The ERT recommends that Greece recalculate the N_2O emissions from manure management for dairy cattle using the correct equation for the calculation of annual N excretion from the 2006 IPCC Guidelines.	Yes. Accuracy
A.20	3.D Direct and indirect N_2O emissions from agricultural soils – N_2O	Greece reported direct N_2O emissions from the application of sewage sludge (3.D.a.2.b) and crop residues (3.D.a.4) to managed soils among those from other N input sources in CRF table 3.D. The ERT noted, however, that the Party did not provide information on N inputs from sewage sludge and crop residues and the corresponding N_2O emissions with such information on other sources in the NIR (tables 5.22–5.25). During the review, Greece explained that it would provide this information in the NIR of the next submission. The ERT recommends that Greece include the information on N inputs from sewage sludge and crop residues and the corresponding N_2O emissions in the NIR.	Yes. Transparency
A.21	3.D.a.2.b Sewage sludge applied to soils – N_2O	The ERT noted significant inter-annual variations in the values of sewage sludge applied to soils in some years of the time series. For example, while the value of sewage sludge applied to soils in the years 2007–2009 is 7.2 kg N/year, the values for 2006 and 2010 are 1,353.6 kg N/year and 6,480 kg N/year, respectively. During the review, Greece explained that according to the waste management department of the Ministry of Environment and Energy, the application of sewage sludge as fertilizer to soils, being limited mainly to research projects and pilot studies, was high during the period 2004–2006 owing to a large number of research projects and pilot studies and significantly lower during the period 2007–2009	Yes. Transparency

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		owing to a lack of such projects and studies. The ERT recommends that Greece include in the NIR an explanation for the significant inter-annual variations in the values of sewage sludge applied to soils in the period 2006–2010.	
LULUCF			
L.7	4.A Forest land	Greece reported the emissions and removals from all pools under grassland converted to forest land using the notation key "NE", even though it reported that area in CRF table 4.A (see also ID# L.2 in table 3). The ERT noted that the Party reported all of its grassland areas as managed grassland in CRF table 4.1. The ERT further noted that the Party reported more than 60 per cent of its forest land as unmanaged and, as a consequence, did not estimate and report the corresponding emissions and removals under the Convention. During the review, Greece explained that it considers the conversion of grassland to forest land as natural expansion of forests on grassland and thus not directly human-induced. Therefore, the Party does not estimate and report emissions and removals from such lands. During the review, Greece stated that it uses the same approach for estimating the carbon stock changes and associated GHG emissions from the forest land category for reporting under both the Convention and its Kyoto Protocol to maintain coherence between the two reporting processes. Greece uses a narrow definition of FM for the reporting under the Kyoto Protocol and thus reports and accounts for emissions and removals only from forest managed under a management plan while also following a similar approach for the reporting under the Convention. The Party further explained that it estimated and reported GHG emissions and removals from cropland converted to forest land both under the Convention and under AR activity in the reporting under the Kyoto Protocol. The ERT notes, however, that there are significant differences in the reporting requirements for the LULUCF sector under the Convention and those for LULUCF activities under the Kyoto Protocol. While for the reporting under the Kyoto Protocol (decision 2/CMP.7, annex, paras. 2 and 9) Parties are required to report and account for anthropogenic GHG emissions and removals from direct human-induced AR and human-induced FM only, under the Convention reporting, Parties have to report on emissions and removals from the entire managed land consistent with the national definition of managed land. According to the 2006 IPCC Guidelines (volume 4, chapter 4, section 4.1), the national definitions of managed forest should cover all forests subject to human intervention, including the full range of management practices, namely protecting forests, raising plantations, promoting natural regeneration, producing commercial timber, extracting non-commercial fuelwood and abandoning managed land. The ERT thus considers that emissions and removals from grassland converted to forest land through natural expansion of forest over managed grassland should be estimated and reported under the Convention reporting. The ERT recommends that Greece, in addition to following the recommendation in ID# L.2 in table 3 regarding the reporting of carbon stock changes in living biomass, deadwood and litter, estimate and report emissions and removals from mineral and organic soils from grassland converted to forest land through natural expansion of forest over managed grassland or provide transparent information justifying why it has not estimated and reported emissions and removals from managed grassland converted to forest land, taking into account the relevant guidance provided in the	Yes. Completeness

ID#	*Finding classification*	*Description of the finding with recommendation or encouragement*	*Is finding an issue and/or a problem?[a] If yes, classify by type*
		2006 IPCC Guidelines (volume 4, chapter 4, section 4.1). The ERT also recommends that Greece provide a transparent definition of managed forest land and information on how this definition has been consistently applied over time to identify areas of managed forest land and estimate and report emissions and removals.	
L.8	4.G HWP – CO_2	The ERT noted that there were significant inter-annual variations in the estimates of removals from HWP produced and consumed domestically for the years 1998–1999 (–332.0 per cent), 1999–2000 (445.2 per cent) and 2008–2009 (237.0 per cent). During the review, Greece explained that the data on HWP produced and consumed domestically are from FAOSTAT and the variation observed is a result of annual changes in the stocks of sawn wood and wood-based panels in the above-mentioned years. The Party provided information on the inflows and outflows of sawn wood and wood panels responsible for the changes in carbon stocks. The ERT noted that this information, while providing more insight into the magnitude of the annual changes in the carbon stocks of sawn wood and wood panels, does not clarify the reasons for the large variations in the inflows and outflows of these products in the above-mentioned years. The ERT recommends that Greece provide in the NIR a transparent explanation for the large inter-annual variations in the estimates of removals from HWP produced and consumed domestically (particularly between the years 1998 and 1999, 1999 and 2000, and 2008 and 2009) including the reasons for the inter-annual variations in the inflows and outflows of sawn wood and wood panels responsible for those variations.	Yes. Consistency
L.9	4.G Harvested wood products – CO_2	The ERT noted that CRF table 4.Gs2 provides the AD for sawn wood, wood-based panels, and paper and paperboard only for 1990 onward. The ERT also noted, however, that, as per the 2006 IPCC Guidelines (volume 4, chapter 12), in order to calculate estimates of the carbon stock changes in these pools for the reporting year, countries must use data on inflows into the pool back to 1900, which are calculated based on data on production, imports and exports since 1900. The ERT further noted that, according to the 2006 IPCC Guidelines, the HWP consumption before 1961 (for which FAOSTAT does not provide data) can be calculated using the assumption that the change in consumption before 1961 was the same as the change in industrial roundwood production for the region in which the country is situated. During the review, Greece explained that it uses the same methodology for estimating and reporting annual changes in the HWP pool, together with the FAOSTAT data for production, imports and exports for 1961 onward, for the reporting under both the Convention and its Kyoto Protocol. Therefore, although CRF table 4.Gs2 presents AD for the inventory time series (1990–2015) only, the AD used for the estimation of the carbon stock changes are for 1961 onward. The Party provided the ERT with a spreadsheet showing the AD used for the three HWP categories since 1961 and explained that it would consider presenting the AD on the three HWP product categories since 1900 in the next submission. The ERT recommends that Greece include in CRF table 4.Gs2 the AD on sawn wood, wood-based panels, and paper and paperboard for 1961 onward. The ERT also recommends that Greece explore the possibility of estimating and reporting the carbon stock changes in the HWP pool by estimating the AD since 1900 using the methodology provided in the 2006 IPCC Guidelines or a country-specific methodology consistent with it.	Yes. Accuracy

ID#	*Finding classification*	*Description of the finding with recommendation or encouragement*	*Is finding an issue and/or a problem?[a] If yes, classify by type*
Waste			
W.15	5. General (waste)	The ERT noted that Greece did not provide in the NIR AD for the key categories in the waste sector. The ERT recommends that Greece provide, in the NIR, disaggregated AD (at the calculation level) for the key categories in the waste sector for the entire time series, specifically for the key categories solid waste disposal (CH_4) and wastewater treatment and discharge (CH_4) (5.A and 5.D), including data on waste generation and management.	Yes. Transparency
W.16	5.A Solid waste disposal on land – CH_4	As explained in the NIR (section 7.2.2, p.379), Greece estimated emissions from solid waste disposal (5.A) by assuming both the DOC value and the fraction of DOC dissimilated as 40 per cent. The ERT noted, however, that in another section of the NIR (section 7.2.2, p.383), the Party reported that it applied the default DOC values by waste type and the default value of DOC dissimilated of 50 per cent provided in the 2006 IPCC Guidelines for estimating emissions from solid waste disposal. During the review, Greece confirmed that there is an error in the NIR text (section 7.2.2, p.379) and that it used default DOC values by waste type and the default value of DOC dissimilated of 50 per cent provided in the 2006 IPCC Guidelines for the calculation of the estimates. The ERT recommends that Greece correct the inconsistency in the DOC values and the fraction of DOC dissimilated in the NIR.	Yes. Transparency
W.17	5.A Solid waste disposal on land – CH_4	As detailed in the NIR (section 7.2.2), Greece estimated the amount of industrial solid waste for the period 1960–2009, used as input data for the estimation of emissions from solid waste disposal (5.A), by extrapolating data for three years only (2004, 2006 and 2008) using gross domestic product and gross production value of livestock as drivers. The ERT noted, however, that the NIR does not clarify whether the Party also estimated the amount of industrial solid waste for the period 2010–2015 using this method. During the review, Greece confirmed that it used the same method for the entire period 1960–2015. The ERT recommends that Greece include in the NIR a transparent description of the estimation methodology used to estimate the amount of industrial solid waste for the entire time series.	Yes. Transparency
W.18	5.A Solid waste disposal on land – CH_4	As mentioned in the NIR (section 7.2.2, p.383), Greece estimated the emissions from solid waste disposal of sewage sludge (5.A) using a k value based on a half-life of nine years. The ERT noted that this value of half-life is lower than the default value provided in the 2006 IPCC Guidelines (12 years) and is indeed at the lower end of the range of the default values provided in the 2006 IPCC Guidelines (9–14 years) (volume 5, chapter 3, table 3.4). During the review, the Party explained that the half-life value of 9 years mentioned in the NIR is incorrect and that it estimated the emissions using the default half-life value of 12 years. The ERT recommends that Greece correct the value of the half-life used for calculating the k value of sewage sludge from 9 to 12 years in the NIR.	Yes. Transparency
W.19	5.A Solid waste disposal on land –	Greece stated in the NIR (section 7.3.2) that it used an F value of 60 per cent for the estimation of emissions from solid waste disposal (see ID# W.7 in table 3). However, during the review, the Party explained that the F value reported in the	Yes. Transparency

ID#	Finding classification	Description of the finding with recommendation or encouragement	Is finding an issue and/or a problem?[a] If yes, classify by type
	CH_4	NIR is incorrect and that it used the default F value of 50 per cent from the 2006 IPCC Guidelines for the estimation of emissions. The ERT recommends that Greece report the correct F value used for the estimation of emissions in the NIR.	
W.20	5.A.2 Unmanaged waste disposal sites – CH_4	Greece stated in the NIR (section 7.2.2, p.373) that it planned to eliminate the small number of unmanaged waste disposal sites by the end of 2014. The ERT noted, however, that this reference is out of date as Greece continues to report the allocation of solid waste to unmanaged waste disposal sites (172.82 kt for 2015) in CRF table 5.A. During the review, the Party explained that although the unmanaged waste disposal sites were originally planned to be eliminated by the end of 2014, a small number of unmanaged sites continued to operate up to 2015. The ERT recommends that Greece ensure consistency in the information between the NIR and CRF tables regarding the existence of unmanaged waste disposal sites in the country.	Yes. Adherence to the UNFCCC Annex I inventory reporting guidelines
W.21	5.B.1 Composting – CH_4 and N_2O	The ERT noted that the annual waste amount treated reported in CRF table 5.B shows significant inter-annual variations for the years 2004–2005 (587.9 per cent), 2005–2006 (432.9 per cent) and 2009–2010 (387.9 per cent). The ERT also noted that the NIR does not provide a reference to the source of the amount of waste composted. During the review, Greece explained that it used official data provided by the Ministry of Environment and Energy for the estimation of the emissions from this category. The Party clarified that only small amounts of waste are treated by composting in Greece. The amounts of waste composted increased sharply from 2.2 t, the first year composting was performed, to 15 and 81 t in 2005 and 2006, respectively, before decreasing significantly in 2009 owing to operating problems in relevant industry plants. The ERT recommends that Greece include in the NIR the explanation for the significant inter-annual changes in the annual waste amount treated by composting together with the reference to the source of AD for composting provided during the review.	Yes. Transparency
W.22	5.C.1 Waste incineration – CO_2	As mentioned in the NIR (section 7.4.2), Greece estimated the CO_2 emissions from the incineration of chemical waste using country-specific values for the parameters carbon content (80 per cent) and fossil carbon fraction (100 per cent). However, the NIR does not provide information on the sources of these values. During the review, the Party explained that it used the default values of these parameters for fossil liquid provided in the 2006 IPCC Guidelines. The ERT recommends that Greece include in the NIR the source of the values for the carbon content and fossil carbon fraction of chemical waste, together with justification for the use of those values.	Yes. Transparency
W.23	5.C.1 Waste incineration – CO_2, CH_4 and N_2O	Greece estimated GHG emissions from the incineration of non-clinical waste (5.C.1) using AD collected by the national statistical authority for 2004, 2006, 2008 and 2010, while assuming similar values for the other years of the time series (NIR, section 7.4.2). The ERT noted that the NIR does not provide information on the methods used to derive the values of the AD for the remaining years of the time series. During the review, the Party explained that it used the AD for 2004 for the period 1990–2004 and the AD for the previous year for the missing values in the period 2005–2011 (i.e. the values for 2004, 2006 and 2008 are used for 2005, 2007 and 2009, respectively) while assuming a small increase for the period	Yes. Consistency

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		2012–2015. Greece also explained that these figures will be revised when official data from the national statistical authority are available. The ERT notes that the method used by the Party to fill the data gaps in the time series is not consistent with the good practice data splicing techniques provided in the 2006 IPCC Guidelines (volume 1, chapter 5) and thus does not ensure time-series consistency. The ERT believes that future ERTs should consider this issue further to ensure that there is not an underestimation of emissions from this activity. The ERT recommends that Greece recalculate the emissions from waste incineration for the years for which AD are currently unavailable by using the AD from the national statistical authority as and when they become available. The ERT also recommends that pending the availability of such AD, Greece recalculate these emissions by filling the gaps in AD using the good practice data splicing techniques provided in the 2006 IPCC Guidelines (volume 1, chapter 5).	
W.24	5.C.1 Waste incineration – CO_2, CH_4 and N_2O	The ERT noted that the AD for waste incineration of non-biogenic waste (5.C1.b) show significant inter-annual variations in the years 2001–2002 (152.2 per cent), 2008–2009 (241.4 per cent) and 2013–2014 (172.4 per cent). The ERT also noted significant discrepancies between the values of the AD and the emissions reported in CRF table 5.C and those provided in the NIR (section 7.44, table 7.24) for all the subcategories under waste incineration (5.C.1). During the review, while confirming that the AD are accurate and have been derived using the same approach for different years, Greece attributed the increase in the AD and emissions in 2002, 2009 and 2014 to the installation of new infrastructure. The Party clarified that while the AD reported in CRF table 5.C are correct, the AD provided for the years 2009–2015 in the 2017 NIR are not accurate and will be corrected in the next submission. The ERT recommends that Greece provide an explanation for the significant inter-annual variation in the AD for waste incineration of non-biogenic waste (5.C.1.b) in the NIR. The ERT also recommends that Greece ensure consistency in the AD and emissions reported for all subcategories under waste incineration (5.C.1) between CRF table 5.C and the NIR.	Yes. Transparency
W.25	5.C.2 Open burning of waste – CO_2, CH_4 and N_2O	Greece reported the emissions from the open burning of waste (5.C.2) using the notation key “NO” for all years of the time series in CRF table 5.C. The ERT noted, however, that the NIR does not include an explanation for this. During the review, the Party confirmed that open burning of waste is not allowed in Greece and that this information will be added in the NIR of the next submission. The ERT recommends that Greece include in the NIR information substantiating the claim that open burning is not practised in the country (e.g. references to legislation).	Yes. Transparency
W.26	5.D Wastewater treatment and discharge – CH_4	The ERT noted that the value of MCF for anaerobic conditions applied in the estimation of emissions from wastewater treatment and discharge (5.D) reported in section 7.3.2 of the NIR (1) is different from those reported in section 7.3.5 of the NIR (0.5 and 0.8 for domestic and industrial wastewater systems, respectively). However, during the review, Greece explained that the values of the MCF were revised following the recommendations of the 2016 European Union review but that the NIR has not been updated accordingly. The ERT recommends that Greece include the correct values of the MCF applied in the estimation of emissions from wastewater treatment and discharge in all sections of the NIR.	Yes. Transparency

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W.27	5.D Wastewater treatment and discharge – N_2O	As reported in the additional information box in CRF table 5.D, Greece estimated the N_2O emissions from domestic wastewater treatment and discharge (5.D.1) using a value of 1.0 for the parameter $F_{IND-COM}$. The ERT noted that the NIR does not include an explanation for the value of $F_{IND-COM}$ used. During the review, however, the Party explained that the value of $F_{IND-COM}$ reported in CRF table 5.D is incorrect and that it used the default value of $F_{IND-COM}$ from the 2006 IPCC Guidelines (1.25). The ERT considers that, as Greece reports the emissions from domestic and industrial wastewater treatment separately, it is necessary for Greece to explain why it applies the default value for $F_{IND-COM}$ and why this does not result in a double counting of emissions. The ERT recommends that Greece report the correct value of $F_{IND-COM}$ used in CRF table 5.D together with a justification for the value of $F_{IND-COM}$ used in the NIR.	Yes. Transparency
W.28	5.D.1 Domestic wastewater – CH_4	The ERT noted that, based on the information provided to the ERT during the review on reporting of biogas recovered from landfill sites in the energy sector, a portion of biogas (CH_4) used in the energy sector is recovered from anaerobic digestion of sludge in municipal wastewater treatment plants before its disposal. The ERT also noted, however, that Greece reported the amount of CH_4 for energy recovery from domestic wastewater treatment and discharge (5.D.1) in CRF table 5.D as "NO". The ERT recommends that Greece report in CRF table 5.D the quantity of biogas recovered in municipal wastewater treatment plants during anaerobic digestion before its disposal.	Yes. Comparability
W.29	5.D.2 Industrial wastewater – CH_4	As explained in the NIR (section 7.3.2), Greece estimated the CH_4 emissions from industrial wastewater treatment and discharge (5.D.2) using a mixture of country-specific and default parameters from the 2006 IPCC Guidelines. During the review, the Party provided more detailed information to the ERT on the default and country-specific wastewater generation and COD values applied for each type of wastewater-producing industry, together with a justification for using country-specific parameters for the paper, oil and sugar industries. The ERT recommends that Greece include in the NIR (e.g. in tabular format) information on the country-specific values of the parameters (wastewater generation and COD) used for the paper, oil and sugar industries, together with justification for the use of these values, any expert assumptions made and complete references to the publications supporting these values.	Yes. Transparency
W.30	5.D.2 Industrial wastewater – CH_4	To estimate CH_4 emissions from industrial wastewater and discharge (5.D.2) for the industries for which there are no available data, Greece assumed the fractions of total DOC removed through the primary and secondary clarifiers to be 30 and 50 per cent, respectively (NIR, section 7.3.2). The ERT noted, however, that the NIR does not provide the basis for this assumption or a reference to the source of these values. During the review, the Party explained that this information was derived by taking an average of the fractions of total DOC removed through the primary and secondary clarifiers in various industries provided by waste experts from the National Technical University of Greece. Greece also provided the ERT with complete references to the relevant publications. The ERT recommends that Greece include in the NIR the explanation for the fractions of DOC removed through primary	Yes. Transparency

ID#	*Finding classification*	*Description of the finding with recommendation or encouragement*	*Is finding an issue and/or a problem?[a] If yes, classify by type*
		and secondary clarifiers in industrial wastewater treatment for the industries for which there are no available data, together with the source of this information and complete references to the relevant publications.	
W.31	5.D.2 Industrial wastewater – N_2O	The ERT noted that the value of $F_{NON-CON}$ used by Greece to estimate N_2O emissions from industrial wastewater treatment and discharge reported in CRF table 5.D (1.0) is at the lower end of the range of default values (1.0–1.5) provided in the 2006 IPCC Guidelines (volume 5, chapter 6). However, during the review, the Party explained that it used a default value for $F_{NON-CON}$ of 1.4 (applicable to countries with garbage disposals) in the calculations and that the value reported in CRF table 5.D will be corrected in the next submission. The ERT recommends that Greece report the correct value of $F_{NON-CON}$ used in the estimation of emissions in CRF table 5.D.	Yes. Transparency
KP-LULUCF			
KL.3	General (KP-LULUCF)	The ERT noted that Greece did not provide in the NIR detailed information on the identification and tracking of land subject to AR, deforestation and FM activities, including how its definition of forest (25 per cent as minimum crown cover, 0.3 ha as minimum area and 2 m as minimum height) is being consistently applied across time and how areas subject to direct human-induced or human-induced activities are identified. The NIR only provides information on sources of data for areas subject to various activities (section 9.2.2) and includes a reference to FM land being subject to an FM plan since 1990 (section 9.3.1.6). During the review, the Party provided additional information on the data sources listed in section 9.2.2 maintained by various administrative agencies and how they enable the identification and tracking of land subject to AR, deforestation and FM activities as per the relevant reporting requirements. Greece further explained that it used the same data sources and forest definition in the first and second commitment periods of the Kyoto Protocol. The ERT noted the usefulness of this information for enhancing the transparency of the submission. The ERT recommends that Greece provide detailed information in the NIR on the identification and tracking of land subject to KP-LULUCF activities, including how its forest definition is being consistently applied across time and how areas subject to direct human-induced or human-induced activities are identified.	Yes. Transparency
KL.4	Forest management – CO_2, CH_4 and N_2O	Greece reported in the NIR (section 9.5.2.2) the second technical correction that it applied to the FMRL in accordance with decision 2/CMP.7, annex, paragraph 14. The ERT noted that the Party reported the first technical correction applied to the FMRL in the previous submission. The ERT also noted that the NIR does not provide information on the methodology and the historical time-series data used in the calculation of the FMRL or information on whether the emissions from wildfires were substituted with the natural disturbance background level in the recalculation of the FMRL for the purpose of calculating the technical correction. During the review, Greece explained that based on recommendations received during the technical assessment of the FMRL in 2011, the FMRL was calculated as an average of emissions and removals from FM for the historical time period 1990–2009. The Party provided the ERT with a spreadsheet with background data used for the development of the FMRL comprising net removals from FM, net emissions from wildfires and removals from HWP for the same period. Greece explained the reasons that triggered the technical correction included in the NIR (section 9.5.2.3), namely: the update of the FM plans database; a change in areas	Yes. Transparency

ID#	Finding classification	Description of the finding with recommendation or encouragement	Is finding an issue and/or a problem?[a] If yes, classify by type
		under FM activity; the recalculation of the time series of emissions from wildfires; the application of the first-order decay function instead of instantaneous oxidation for HWP and the application of the natural disturbance provision; and the substitution of emissions from wildfires with the background level in the FMRL. The ERT noted the usefulness of this information for enhancing the transparency of the submission. The ERT recommends that Greece provide in the NIR detailed information on the methods and historical time-series data used for the calculation of the technical correction to the FMRL, including the treatment of natural disturbances and HWP.	
KL.5	Deforestation	Greece provided some information in the NIR (section 9.4.2) on how it distinguishes harvesting or forest disturbance that is followed by the re-establishment of a forest from deforestation, as required by decision 2/CMP.8, annex II, paragraph 4(b). The Party cited articles from the constitution and national laws that regulate harvesting in both public and private forests and noted that as it is prohibited by law, barring a few exceptional cases, land-use change of forest land is highly unlikely. The ERT noted, however, that Greece did not provide specific details on how its forest monitoring system detects land areas subject to harvesting or forest disturbance and tracks them over time to determine whether their land use has changed. In particular, the ERT noted that the NIR does not include information on the criteria by which temporary removal or loss of tree cover can be distinguished from deforestation, such as the expected time interval between the removal of tree cover from a land and its regeneration to a state that meets the forest definition. During the review, Greece provided detailed information on how harvesting or forest disturbance that is followed by the re-establishment of forest is distinguished from deforestation. It explained that, subject to only a few exceptions in cases of public benefit (e.g. construction of roads, railways, high tension lines), Greek laws prohibit the conversion of forest land to any other land use and, as a consequence, measures are put in place to regenerate any area subject to harvesting and forest disturbance. Greece also mentioned that the tracking of these lands is done by the Forest Service through a database. The ERT notes that the explanation provided by the Party, although useful for allowing an understanding of the legal environment and responsibilities as well as practices put in place to ensure that forest land subject to harvesting or disturbance is regenerated, does not include a clear description of the national forest monitoring system and how it detects land areas subject to harvesting or forest disturbance and tracks them over time to determine whether their land use has changed. The ERT noted the usefulness of this information for enhancing the transparency of the submission. The ERT recommends that Greece provide a clear description in the NIR of how its national forest monitoring system detects and distinguishes land subject to harvesting and disturbance from deforestation, including any time interval specified for such lands to regenerate and meet the national forest definition.	Yes. Transparency

[a] Recommendations made by the ERT during the review are related to issues as defined in paragraph 81 of the UNFCCC review guidelines, or problems as defined in paragraph 69 of the Article 8 review guidelines. Encouragements are made to the Party to address all findings not related to such issues or problems.

VI. Application of adjustments

10. The ERT has not identified the need to apply any adjustments to the 2017 annual submission of Greece.

VII. Accounting quantities for activities under Article 3, paragraph 3, and, if any, activities under Article 3, paragraph 4, of the Kyoto Protocol

11. Greece has elected commitment period accounting and therefore the issuance and cancellation of units for KP-LULUCF activities is not applicable for the 2017 review.

VIII. Questions of implementation

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

Annex I

Overview of greenhouse gas emissions and removals for Greece for submission year 2017 and data and information on activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, as submitted by Greece

1. Tables 6–9 provide an overview of total GHG emissions and removals as submitted by Greece.

Table 6
Total greenhouse gas emissions for Greece, base year[a]–2015
(kt CO_2 eq)

	Total GHG emissions excluding indirect CO_2 emissions		*Total GHG emissions including indirect CO_2 emissions[b]*		*Land-use change (Article 3.7 bis as contained in the Doha Amendment)[c]*	*KP-LULUCF activities (Article 3.3 of the Kyoto Protocol)[d]*	*KP-LULUCF activities (Article 3.4 of the Kyoto Protocol)*	
	Total including LULUCF	*Total excluding LULUCF*	*Total including LULUCF*	*Total excluding LULUCF*			*CM, GM, RV, WDR*	*FM*
FMRL								–1 830.00
Base year	103 750.82	105 928.84	NA	NA	NA		NA	
1990	100 903.18	103 081.19	NA	NA				
1995	106 209.40	109 135.47	NA	NA				
2000	124 216.49	126 327.70	NA	NA				
2010	114 983.93	118 308.93	NA	NA				
2011	111 918.60	115 331.64	NA	NA				
2012	108 648.50	112 024.30	NA	NA				
2013	100 571.84	102 436.85	NA	NA		–88.52	NA	–2 038.90
2014	98 909.79	99 353.49	NA	NA		–99.61	NA	–2 039.00
2015	92 574.66	95 715.10	NA	NA		–79.51	NA	–2 028.15

Note: Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions.

[a] Base year refers to the base year under the Kyoto Protocol, which is 1990 for CO_2, CH_4 and N_2O, 1995 for HFCs, PFCs and SF_6 and 2000 for NF_3. Greece has not elected any activities under Article 3, paragraph 4, of the Kyoto Protocol. For activities under Article 3, paragraph 3, of the Kyoto Protocol and FM under Article 3, paragraph 4, only the inventory years of the commitment period must be reported.

[b] The Party has not reported indirect CO_2 emissions in CRF table 6.

[c] The value reported in this column refers to 1990.

[d] Activities under Article 3, paragraph 3, of the Kyoto Protocol, namely AR and deforestation.

Table 7
Greenhouse gas emissions by gas for Greece, excluding land use, land-use change and forestry, 1990–2015
(kt CO_2 eq)

	CO_2[a]	*CH_4*	*N_2O*	*HFCs*	*PFCs*	*Unspecified mix of HFCs and PFCs*	*SF_6*	*NF_3*
1990	83 375.36	10 906.61	7 423.22	1 182.82	190.26	NA, NO	2.93	NA, NO
1995	86 945.64	11 303.20	6 662.98	4 157.38	62.85	NA, NO	3.42	NA, NO
2000	102 982.30	11 628.86	6 328.64	5 261.83	122.26	NA, NO	3.81	NA, NO
2010	97 342.98	10 972.53	5 469.46	4 388.67	129.44	NA, NO	5.86	NA, NO
2011	94 531.70	10 793.89	5 228.73	4 661.66	110.53	NA, NO	5.13	NA, NO
2012	91 417.80	10 595.13	4 796.77	5 061.78	147.77	NA, NO	5.05	NA, NO
2013	81 722.58	10 387.06	4 499.27	5 650.22	172.56	NA, NO	5.15	NA, NO
2014	78 657.96	10 312.84	4 485.00	5 758.13	134.63	NA, NO	4.92	NA, NO
2015	74 962.94	10 218.43	4 506.46	5 902.68	119.52	NA, NO	5.06	NA, NO
Per cent change 1990–2015	**–10.1**	**–6.3**	**–39.3**	**399.0**	**–37.2**	**NA**	**72.8**	**NA**

Note: Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions.
[a] Greece did not report indirect CO_2 emissions in CRF table 6.

Table 8
Greenhouse gas emissions by sector for Greece, 1990–2015
(kt CO_2 eq)

	Energy	*IPPU*	*Agriculture*	*LULUCF*	*Waste*	*Other*
1990	76 869.62	11 226.96	10 120.79	–2 178.02	4 863.82	NO
1995	80 949.77	13 569.65	9 465.84	–2 926.07	5 150.20	NO
2000	96 678.36	15 176.38	9 124.74	–2 111.21	5 348.23	NO
2010	93 080.53	11 662.02	8 815.94	–3 325.00	4 750.44	NO
2011	91 901.25	10 320.48	8 574.71	–3 413.04	4 535.19	NO
2012	88 118.94	11 140.73	8 446.56	–3 375.80	4 318.07	NO
2013	77 766.86	11 861.99	8 380.53	–1 865.00	4 427.47	NO
2014	74 323.39	12 232.95	8 294.91	–443.69	4 502.23	NO
2015	71 022.38	11 896.29	8 309.97	–3 140.44	4 486.46	NO
1990–2015	**–7.6**	**6.0**	**–17.9**	**44.2**	**–7.8**	**NA**

Notes: (1) Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions. (2) Greece did not report indirect CO_2 emissions in CRF table 6.

Table 9

Greenhouse gas emissions/removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol by activity, 1990[a]–2015, for Greece

(kt CO_2 eq)

	Article 3.7 bis as contained in the Doha Amendment[b]	*Article 3.3 of the Kyoto Protocol*		*FM and elected Article 3.4 activities of the Kyoto Protocol*				
	Land-use change	*AR*	*Deforestation*	*FM*	*CM*	*GM*	*RV*	*WDR*
FMRL				–1 830.00				
Technical correction				91.98				
Base year	NA				NA	NA	NA	NA
2013		–135.85	47.33	–2 038.90	NA	NA	NA	NA
2014		–146.89	47.28	–2 039.00	NA	NA	NA	NA
2015		–124.41	44.90	–2 028.15	NA	NA	NA	NA
Per cent change base year–2015					**NA**	**NA**	**NA**	**NA**

Notes: (1) Values in this table include emissions on lands subject to natural disturbances, if applicable.

[a] Greece has not elected any activities under Article 3, paragraph 4, of the Kyoto Protocol. For activities under Article 3, paragraph 3, of the Kyoto Protocol, and FM under Article 3, paragraph 4, only the inventory years of the commitment period must be reported.

[b] The value reported in this column refers to 1990.

2. Table 10 provides an overview of relevant key data for Greece's reporting under Article 3, paragraphs 3 and 4, of the Kyoto Protocol.

Table 10
Key relevant data for Greece under Article 3, paragraphs 3 and 4, of the Kyoto Protocol

Key parameters	*Values*
Periodicity of accounting	(a) AR: commitment period accounting
	(b) Deforestation: commitment period accounting
	(c) FM: commitment period accounting
	(d) CM: not elected
	(e) GM: not elected
	(f) RV: not elected
	(g) WDR: not elected
Election of activities under Article 3, paragraph 4	None
Election of application of provisions for natural disturbances	Yes, for AR and FM
3.5% of total base-year GHG emissions, excluding LULUCF	3 764.745 kt CO_2 eq (30 117.958 kt CO_2 eq for the duration of the commitment period)
Cancellation of AAUs, ERUs, CERs and/or issuance of RMUs in the national registry for:	
1. AR in 2015	NA
2. Deforestation in 2015	NA
3. FM in 2015	NA
4. CM in 2015	NA
5. GM in 2015	NA
6. RV in 2015	NA
7. WDR in 2015	NA

Annex II

Information to be included in the compilation and accounting database

Tables 11–13 include the information to be included in the compilation and accounting database for Greece. Data shown are from the original annual submission of the Party, including the latest revised estimates submitted, adjustments (if applicable), as well as the final data to be included in the compilation and accounting database.

Table 11
Information to be included in the compilation and accounting database for 2015, including on the commitment period reserve, for Greece
($t CO_2 eq$)

	Original submission	*Revised estimate*	*Adjustment*	*Final*
CPR	432 712 049			432 712 049
Annex A emissions for 2015				
CO_2	74 962 944			74 962 944
CH_4	10 218 431			10 218 431
N_2O	4 506 457			4 506 457
HFCs	5 902 685			5 902 685
PFCs	119 522			119 522
Unspecified mix of HFCs and PFCs	NA, NO			NA, NO
SF_6	5 060			5 060
NF_3	NA, NO			NA, NO
Total Annex A sources	**95 715 099**			**95 715 099**
Activities under Article 3, paragraph 3, of the Kyoto Protocol for 2015				
3.3 AR	–124 406			–124 406
3.3 Deforestation	44 896			44 896
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol for 2015				
3.4 FM	–2 028 152			–2 028 152

Table 12
Information to be included in the compilation and accounting database for 2014, for Greece
(t CO_2 eq)

	Original submission	*Revised estimate*	*Adjustment*	*Final*
Annex A emissions for 2014				
CO_2	78 657 956			78 657 956
CH_4	10 312 841			10 312 841
N_2O	4 485 004			4 485 004
HFCs	5 758 129			5 758 129
PFCs	134 634			134 634
Unspecified mix of HFCs and PFCs	NA, NO			NA, NO
SF_6	4 922			4 922
NF_3	NA, NO			NA, NO
Total Annex A sources	**99 353 485**			**99 353 485**
Activities under Article 3, paragraph 3, of the Kyoto Protocol for 2014				
3.3 AR	–146 890			–146 890
3.3 Deforestation	47 277			47 277
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol for 2014				
3.4 FM	–2 038 996			–2 038 996

Table 13
Information to be included in the compilation and accounting database for 2013, for Greece
(t CO_2 eq)

	Original submission	*Revised estimate*	*Adjustment*	*Final*
Annex A emissions for 2013				
CO_2	81 722 583			81 722 583
CH_4	10 387 060			10 387 060
N_2O	4 499 272			4 499 272
HFCs	5 650 219			5 650 219
PFCs	172 562			172 562
Unspecified mix of HFCs and PFCs	NA, NO			NA, NO
SF_6	5 151			5 151
NF_3	NA, NO			NA, NO
Total Annex A sources	**102 436 846**			**102 436 846**
Activities under Article 3, paragraph 3, of the Kyoto Protocol for 2013				
3.3 AR	–135 854			–135 854
3.3 Deforestation	47 334			47 334
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol for 2013				
3.4 FM	–2 038 900			–2 038 900

Annex III

Additional information to support findings in table 2

Missing categories that may affect completeness

The categories for which methods are included in the 2006 IPCC Guidelines that were reported as "NE" or for which the ERT otherwise determined that there may be an issue with the completeness of reporting in the Party's inventory are the following:

(a) CO_2 emissions from carbon stock changes in the living biomass, dead organic matter in grassland converted to forest land; and carbon stock changes in the living biomass in cropland converted to settlements (see ID# L.2 in table 3);

(b) CO_2 emissions from carbon stock changes in the soil carbon pools in grassland converted to forest land (see ID# L.7 in table 5).

Annex IV

Documents and information used during the review

A. Reference documents

Reports of the Intergovernmental Panel on Climate Change

IPCC. 1997. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. JL Houghton, LG Meira Filho, B Lim, et al. (eds.). Paris: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency. Available at https://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html.

IPCC. 2000. *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. J Penman, D Kruger, I Galbally, et al. (eds.). Hayama, Japan: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency/Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/gp/english/.

IPCC. 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. S Eggleston, L Buendia, K Miwa, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl.

IPCC. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. T Hiraishi, T Krug, K Tanabe, et al. (eds.). Geneva: IPCC. Available at http://www.ipcc-nggip.iges.or.jp/public/wetlands/.

Annual review reports

Reports on the individual review of the 2012, 2013, 2014, 2015 and 2016 annual submissions of Greece contained in documents FCCC/ARR/2012/GRC, FCCC/ARR/2013/GRC, FCCC/ARR/2014/GRC, FCCC/ARR/2015/GRC and FCCC/ARR/2016/GRC, respectively.

Other

Aggregate information on greenhouse gas emissions by sources and removals by sinks for Parties included in Annex I to the Convention. Note by the secretariat. Available at http://unfccc.int/resource/webdocs/agi/2017.pdf.

Annual status report for Greece for 2017. Available at http://unfccc.int/resource/docs/2017/asr/grc.pdf.

Public Power Corporation. 1994. *Estimation of the CO_2 Emission Factors for the Lignite Used by the PPC*. Athens: Public Power Corporation.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Dimitris Niavis (Ministry of Environment and Energy), including additional material on the methodology and assumptions used.