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Report on the technical review of the fourth biennial report of Greece

Developed country Parties were requested by decision 2/CP.17 to submit their fourth biennial report to the secretariat by 1 January 2020. This report presents the results of the technical review of the fourth biennial report of Greece, conducted by an expert review team in accordance with the "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". The review took place from 27 April to 1 May 2020 remotely.

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Contents

Abbreviations and acronyms

AEA	annual emission allocation
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BR	biennial report
CH_4	methane
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CTF	common tabular format
DAC	Development Assistance Committee
ERT	expert review team
ESD	European Union effort-sharing decision
EU	European Union
EU ETS	European Union Emissions Trading System
F-gas	fluorinated gas
GDP	gross domestic product
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
LULUCF	land use, land-use change and forestry
NA	not applicable
NC	national communication
NECP	National Energy and Climate Plan
NF_3	nitrogen trifluoride
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
N_2O	nitrous oxide
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PaMs	policies and measures
PFC	perfluorocarbon
Ramsar Convention	Convention on Wetlands of International Importance especially as Waterfowl Habitat
RES	renewable energy source(s)
SF_6	sulfur hexafluoride
UNFCCC reporting guidelines on BRs	“UNFCCC biennial reporting guidelines for developed country Parties”
UNFCCC reporting guidelines on NCs	“Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”
WAM	‘with additional measures’
WEM	‘with measures’
WOM	‘without measures’

I. Introduction and summary

A. Introduction

1. This is a report on the centralized technical review of the BR4[1] of Greece. The review was organized by the secretariat in accordance with the "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", particularly "Part IV: UNFCCC guidelines for the technical review of biennial reports from Parties included in Annex I to the Convention" (annex to decision 13/CP.20).

2. In accordance with the same decision, a draft version of this report was transmitted to the Government of Greece, which provided comments that were considered and incorporated, as appropriate, with revisions into this final version of the report.

3. The review was conducted together with the review of one other Party included in Annex I to the Convention from 27 April to 1 May 2020 remotely[2] by the following team of nominated experts from the UNFCCC roster of experts: Beausic Chongo (Zambia), Xiang Gao (China), Zeljko Juric (Croatia), Keddy Mbindo (Zambia), Malik Mechhoud (Algeria), Takashi Morimoto (Japan), Gherghita Nicodim (Romania) and Yang Xiu (China). Mr. Gao and Ms. Nicodim were the lead reviewers. The review was coordinated by James Howland and Anna Sikharulidze (secretariat).

B. Summary

4. The ERT conducted a technical review of the information reported in the BR4 of Greece in accordance with the UNFCCC reporting guidelines on BRs (annex I to decision 2/CP.17).

1. Timeliness

5. The BR4 was submitted on 1 February 2020, after the deadline of 1 January 2020 mandated by decision 2/CP.17. The CTF tables were also submitted on 1 February 2020.

6. Greece informed the secretariat on 9 January 2020 about its difficulties with making a timely submission. In accordance with decision 13/CP.20, a Party should inform the secretariat thereof by the due date of the submission in order to facilitate the arrangement of the review process. The ERT noted with concern the delay in the submission and recommended that Greece make its next submission on time.

2. Completeness, transparency of reporting and adherence to the reporting guidelines

7. Issues and gaps identified by the ERT related to the reported information are presented in table 1. The information reported by Greece in its BR4 mostly adheres to the UNFCCC reporting guidelines on BRs.

[1] The BR submission comprises the text of the report and the CTF tables, which are both subject to the technical review.

[2] Owing to the circumstances related to the coronavirus disease 2019, the technical review of the BR submitted by Greece had to be conducted remotely.

Table 1
Summary of completeness and transparency of mandatory information reported by Greece in its fourth biennial report

Section of BR	*Completeness*	*Transparency*	*Reference to description of recommendation(s)*
GHG emissions and removals	Complete	Transparent	–
Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies	Complete	Transparent	–
Progress in achievement of targets	Complete	Transparent	–
Provision of support to developing country Parties	Mostly complete	Mostly transparent	Issues 1–3 in table 11

Note: A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in chap. III below. The assessment of completeness and transparency by the ERT in this table is based only on the "shall" reporting requirements.

II. Technical review of the information reported in the fourth biennial report

A. Information on greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target

1. Technical assessment of the reported information

8. Total GHG emissions[3] excluding emissions and removals from LULUCF decreased by 10.7 per cent between 1990 and 2018, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 11.8 per cent over the same period. Emissions reached the highest point in 2005 and decreased thereafter. The changes in total emissions were driven mainly by the economic recession in 2008–2016 and by mitigation actions such as the introduction of RES and energy efficiency measures in buildings and industry in the light of EU and national goals and regulations.

9. Table 2 illustrates the emission trends by sector and by gas for Greece. Note that information in this paragraph and table 2 is based on Greece's 2020 annual submission, version 1, which has not yet been subject to review. All emission data in subsequent chapters are based on Greece's BR4 CTF tables unless otherwise noted. The emissions reported in the 2019 annual submission are the same as reported in CTF table 1 but differ from the estimates reported in the 2020 submission, as they were recalculated since the 2019 submission. This recalculation resulted in a revision of the estimate of the total emissions for 1990, from 103,101.31 to 103,308.91 kt CO_2 eq, and for 2017, from 95,420.78 to 95,585.97 kt CO_2 eq.

[3] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of CO_2 eq excluding LULUCF, unless otherwise specified.

Table 2
Greenhouse gas emissions by sector and by gas for Greece for 1990–2018

	GHG emissions (kt CO_2 eq)					*Change (%)*		*Share (%)*	
	1990	*2000*	*2010*	*2017*	*2018*	*1990–2018*	*2017–2018*	*1990*	*2018*
Sector									
1. Energy	77 026.71	96 797.04	93 154.84	70 259.10	67 307.35	–12.6	–4.2	74.6	73.0
A1. Energy industries	43 252.76	54 932.09	52 211.41	39 940.59	38 266.50	–11.5	–4.2	41.9	41.5
A2. Manufacturing industries and construction	9 404.85	9 932.57	6 898.61	5 787.20	5 125.22	–45.5	–11.4	9.1	5.6
A3. Transport	14 506.98	18 859.96	22 476.45	17 215.75	17 448.44	20.3	1.4	14.0	18.9
A4. and A5. Other	8 652.81	11 610.20	10 232.98	6 358.45	5 541.15	–36.0	–12.9	8.4	6.0
B. Fugitive emissions from fuels	1 209.31	1 462.22	1 335.40	957.12	926.05	–23.4	–3.2	1.2	1.0
C. CO_2 transport and storage	NO	NO	NO	NO	NO	–	–	–	–
2. Industrial processes and product use	11 277.14	15 193.13	11 759.65	12 793.63	12 386.92	9.8	–3.2	10.9	13.4
3. Agriculture	10 140.24	9 146.79	8 838.65	7 887.69	7 781.50	–23.3	–1.3	9.8	8.4
4. LULUCF	–2 107.91	–1 941.35	–3 043.08	–3 209.10	–2 977.89	41.3	–7.2	NA	NA
5. Waste	4 864.81	5 355.96	4 769.11	4 645.55	4 745.89	–2.4	2.2	4.7	5.1
6. Other[a]	NO	NO	NO	NO	NO	–	–	–	–
Gas[b]									
CO_2	83 425.55	102 999.03	97 361.50	74 852.85	71 797.87	–13.9	–4.1	80.8	77.9
CH_4	11 042.24	11 735.94	11 068.17	10 059.23	10 091.07	–8.6	0.3	10.7	10.9
N_2O	7 465.11	6 370.03	5 489.52	4 365.16	4 284.88	–42.6	–1.8	7.2	4.6
HFCs	1 182.82	5 261.86	4 467.76	6 177.93	5 907.58	399.5	–4.4	1.1	6.4
PFCs	190.26	122.26	129.44	125.79	135.31	–28.9	7.6	0.2	0.1
SF_6	2.93	3.81	5.86	5.01	4.94	68.8	–1.4	0.0	0.0
NF_3	NA NO	NA NO	NA NO	NA NO	NA NO	–	–	–	–
Total GHG emissions excluding LULUCF	**103 308.91**	**126 492.93**	**118 522.25**	**95 585.97**	**92 221.66**	**–10.7**	**–3.5**	**100.0**	**100.0**
Total GHG emissions including LULUCF	**101 201.00**	**124 551.58**	**115 479.17**	**92 376.88**	**89 243.77**	**–11.8**	**–3.4**	**NA**	**NA**

Source: GHG emission data: Greece's 2020 annual submission, version 1.
[a] Emissions and removals reported under the sector other (sector 6) are not included in the total GHG emissions.
[b] Emissions by gas without LULUCF.

10. In brief, Greece's national inventory arrangements were updated by joint ministerial decision 22993/2017, entitled "Structure and Operation of the National Greenhouse Gas Inventory System". The Ministry of Environment and Energy is the governmental body responsible for developing and implementing environmental policy and disseminating information concerning the state of the environment in Greece, pursuant to the relevant provisions of international conventions, protocols and agreements. The Ministry of Environment and Energy is also responsible for coordinating all other relevant ministries and any relevant public or private organization that contributes to data collection and the development of methodological issues, as appropriate. The preparation of the annual inventory has been delegated to the School of Chemical Engineering of the National Technical University of Athens on a contractual basis.

11. Changes to these arrangements since the BR3 pertain to the preparation of the annual inventory of the LULUCF sector. As reported in the BR4, before the 2020 submission an independent consultant was responsible for compiling the LULUCF inventory, which is now done by the National Technical University of Athens.

2. Assessment of adherence to the reporting guidelines

12. The ERT assessed the information reported in the BR4 of Greece and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

B. Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies

1. Technical assessment of the reported information

13. For Greece the Convention entered into force on 2 November 1994. Under the Convention Greece committed to contributing to the achievement of the joint EU economy-wide emission reduction target of 20 per cent below the 1990 level by 2020.

14. The target for the EU and its member States is formalized in the EU 2020 climate and energy package. The legislative package regulates emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using GWP values from the AR4 to aggregate the GHG emissions of the EU until 2020. Emissions and removals from the LULUCF sector are not included in the quantified economy-wide emission reduction target under the Convention. The EU generally allows its member States to use units from the Kyoto Protocol mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. Operators and airline operators can use such units to fulfil their requirements under the EU ETS, and member States can use such units for their national ESD targets, within specific limitations.

15. The EU 2020 climate and energy package includes the EU ETS and the ESD (see paras. 27–28 below). The EU ETS covers mainly point emissions sources in the energy, industry and aviation sectors. An EU-wide emission cap has been put in place for 2013–2020 with the goal of reducing emissions by 21 per cent below the 2005 level by 2020. Emissions from ESD sectors are regulated through member State specific targets that add up to a reduction at the EU level of 10 per cent below the 2005 level by 2020.

16. The European Commission set out its vision for a climate-neutral EU in November 2018, and in December 2019 presented the European Green Deal as a road map with actions for making the EU economy sustainable. The European Council endorsed in December 2019 the objective of making the EU climate-neutral by 2050. As part of the European Green Deal, the Commission proposed in March 2020 to enshrine the 2050 climate-neutrality target into the first European Climate Law. The European Green Deal calls for increased ambition in the 2030 emission reduction target to at least 50 per cent below the 1990 level. Member States will set out any increased ambition in the update of their NECPs.

17. Greece has a national target of reducing its total GHG emissions to 4 per cent below the 2005 level by 2020 for emissions under the ESD. This target has been translated into binding quantified AEAs for 2013–2020. Greece's AEAs change following a linear path from 58,955.03 kt CO_2 eq in 2013 to 60,049.19 kt CO_2 eq in 2020.[4]

18. Greece also reported on its longer-term target of reducing GHG emissions by 42 per cent by 2030 compared with the 1990 level, specified in its NECP.

2. Assessment of adherence to the reporting guidelines

19. The ERT assessed the information reported in the BR4 of Greece and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

[4] European Commission decision 2017/1471 amended decision 2013/162/EU to revise member States' AEAs for 2017–2020.

C. Progress made towards achievement of the quantified economy-wide emission reduction target

1. Mitigation actions and their effects

(a) Technical assessment of the reported information

20. Greece provided information on its package of PaMs implemented, adopted and planned, by sector and by gas, in order to fulfil its commitments under the Convention. Greece reported on its policy context and legal and institutional arrangements in place for implementing its commitments and monitoring and evaluating the effectiveness of its PaMs.

21. Greece provided information on a set of PaMs similar to those previously reported. Greece also indicated that there have been no changes since its previous submission to its institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of progress towards its target.

22. In its reporting on its PaMs, Greece provided the estimated emission reduction impacts for all of its PaMs except for those in the LULUCF sector, as described in paragraph 56 below.

23. The Party described the general methodology used to estimate the impacts of its PaMs. It reported that GHG emission projections for the energy sector are based on two models used for official energy planning and spreadsheet models were used for non-energy sectors. Greece further indicated that, in order to estimate the impact of each of the PaMs, it compared the WEM scenario with a hypothetical baseline scenario (which did not include the mitigation effect of the examined policy or measure). The Party indicated that it applied methodologies from the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* and used country-specific information.

24. Greece reported on its self-assessment of compliance with its emission reduction targets and national rules for taking action against non-compliance, which are based on a universal monitoring and review process in place for all EU member States (EU monitoring mechanism regulation (525/2013)) to assess compliance with their contribution towards the EU-wide target.

25. The key overarching cross-sectoral policy in the EU is the 2020 climate and energy package, adopted in 2009, which includes the revised EU ETS and the ESD. The package is supplemented by renewable energy and energy efficiency legislation and legislative proposals on the 2020 targets for CO_2 emissions from cars and vans, the carbon capture and storage directive, and the general programmes for environmental conservation, namely the 7th Environment Action Programme and the clean air policy package. The 2030 climate and energy framework, adopted in 2014, includes more ambitious targets, that will be updated as part of the European Green Deal.

26. The achievement of the Energy Union objectives and targets is ensured through a combination of Energy Union initiatives and national policies set out in integrated NECPs. The NECPs are periodically updated to reflect changes to EU policy, such as the implementation of the European Green Deal. Greece's NECP specifies the target of reducing GHG emissions by 42.0 per cent by 2030 in comparison with the 1990 GHG emission level, surpassing the EU-wide target (40.0 per cent). The Party's target to increase the share of RES in the gross final energy consumption by at least 35.0 per cent by 2030 is also higher than the EU-wide target (32.0 per cent). Greece also set a target of increasing energy efficiency by 38.0 per cent, whereas the corresponding EU-wide target is 32.5 per cent.

27. In operation since 2005, the EU ETS is a cap-and-trade system that covers all significant energy-intensive installations (mainly large point emissions sources such as power plants and industrial facilities), which produce 40–45 per cent of the GHG emissions of the EU. It is expected that the EU ETS will guarantee that the 2020 target (a 21 per cent emission reduction below the 2005 level) will be achieved for sectors under the scheme. The third phase of the EU ETS started in 2013 and the system now includes aircraft operations (since 2012) as well as N_2O emissions from chemical industry, PFC emissions from

aluminium production and CO_2 emissions from some industrial processes that were not covered in the previous phases of the EU ETS (since 2013). Auctioning is the default method for allocating allowances; however, harmonized rules for free allocations, based on benchmark values achieved by the most efficient 10 per cent of installations, are still in place as a safeguard for the international competitiveness of industrial sectors at risk of carbon leakage. For 2030, an emission reduction target of 43 per cent below the 2005 level has been set for the EU ETS.

28. The ESD became operational in 2013 and covers transport (excluding domestic and international aviation, and international maritime transport), residential and commercial buildings, agriculture and waste, together accounting for 55–60 per cent of the GHG emissions of the EU. The aim of the ESD is to decrease GHG emissions in the EU by 10 per cent below the 2005 level by 2020, and it includes binding annual targets for each member State for 2013–2020. The EU effort-sharing regulation, successor to the ESD, was adopted in 2018. It sets national emission reduction targets for 2030 ranging from 0 to 40 per cent below the 2005 level, and trajectories with annual limits for 2021–2030, for all member States, and keeps many of the flexibilities of the ESD.

29. Greece highlighted the EU-wide mitigation actions and targets that are adopted or under development within the 2030 climate and energy framework. Among the mitigation actions that will have a significant impact on future emissions in Greece are reforming and strengthening the EU ETS; targets to cut emissions by 30.0 per cent compared with the 2005 level under the ESD, increase energy efficiency by 32.5 per cent by 2030 and increase the share of renewable energy to 32.0 per cent by 2030; and a push for second-generation biofuels.

30. Greece introduced national-level policies to achieve its targets under the ESD and domestic emission reduction targets (see paras. 17, 18 and 26 above). The key policies reported are the promotion of natural gas, the promotion of RES and the implementation of energy efficiency measures. The measures expected to have the most significant mitigation impact in 2020 and 2030 are the promotion of RES for electricity generation, improvements to the conventional power generation system, implementation of energy efficiency measures in the residential and tertiary sectors, the reduction of emissions of F-gases and recovery of organic waste.

31. Greece highlighted the domestic mitigation actions that were under development during the preparation of the BR4, such as further promoting RES for electricity generation; further increasing biofuel use in the transport sector; further promoting natural gas and energy efficiency in industry; further promoting natural gas and implementing additional energy efficiency measures in the residential and tertiary sectors; and implementing additional road transport measures. Among the mitigation actions that provide a foundation for significant additional action are further promoting RES for electricity generation; and further promoting natural gas and implementing additional energy efficiency measures in the residential and tertiary sectors. Table 3 provides a summary of the reported information on the PaMs of Greece.

Table 3
Summary of information on policies and measures reported by Greece

Sector	*Key PaMs*	*Estimate of mitigation impact in 2020 (kt CO_2 eq)*	*Estimate of mitigation impact in 2030 (kt CO_2 eq)*
Energy			
Energy supply	Improvements to the conventional power generation system	15 000.00	10 400.00
	Promoting RES for electricity generation	11 000.00	19 000.00
	Further promoting RES for electricity generation (planned measure)	NO	11 792.00
Industry	Promoting natural gas in industry	814.00	970.00
	Further promoting natural gas and energy efficiency in industry (planned measure)	NO	1 276.00
Transport	Biofuel use in transportation	650.00	700.00

Sector	*Key PaMs*	*Estimate of mitigation impact in 2020 (kt CO_2 eq)*	*Estimate of mitigation impact in 2030 (kt CO_2 eq)*
Residential and service sector	Energy efficiency measures in the residential and tertiary sectors	2 200.00	2 400.00
	Further promoting natural gas and additional energy efficiency measures in the residential and tertiary sectors (planned measure)	NO	2 990.00
Industrial processes and product use	Reducing emissions of F-gases	460.00	2 300.00
Agriculture	Reducing the intensity of agricultural land use and improvement of management of animal waste	375.00	750.00
Waste	Recovery of organic waste	500.00	1 300.00

Note: The estimates of mitigation impact are estimates of emissions of CO_2 eq avoided in a given year as a result of the implementation of mitigation actions.

32. Greece reported that a significant number of PaMs are implemented at the local level, given that more than half of the country's GHG emissions are generated by cities, which account for up to 80 per cent of its total energy consumption. In this regard, the European Commission launched the ambitious voluntary initiative Covenant of Mayors for Climate and Energy, through which local governments formally commit to go beyond EU CO_2 emission reduction goals by implementing sustainable energy and climate action plans. More than 100 Greek cities and one supporting network of cities have joined the initiative.

33. Greece provided information on 17 implemented PaMs (see CTF table 3 and table 12 in the BR4) and 5 planned PaMs (see CTF table 3 and table 14 in the BR4). The information provided on the implemented actions was similar to that previously reported, with changes reported in the mitigation effects of several PaMs. The changes in the mitigation impacts were owing to improvements in the WEM scenario, which was updated to reflect the current economic situation and the most recent forecasts of macroeconomic parameters.

34. The expected total GHG emission reduction potential of implemented and adopted PaMs was estimated to be 33.08 Mt CO_2 eq in 2020 and 40.65 Mt CO_2 eq in 2030, while the assessed additional GHG emission reduction potential of planned PaMs was estimated to be 16.68 Mt CO_2 eq in 2030.

(b) Policies and measures in the energy sector

35. **Energy efficiency.** The national energy efficiency policy was developed on the basis of the EU energy efficiency directive (2012/27/EU) and its amending directive (EU 2018/2002). Greece's NECP sets the objective of improving the energy efficiency of final energy consumption by at least 38 per cent by 2030 compared with the forecast for final energy consumption, so that the final energy consumption does not exceed 16.50 Mtoe in 2030. An additional objective is for cumulative energy savings to be achieved in 2021–2030 in accordance with article 7 of the EU energy efficiency directive (the energy savings obligation), which translates to at least 7.30 Mtoe cumulative energy savings.

36. The EU energy efficiency directive establishes a common framework for the promotion of energy efficiency. Every three years, Greece develops a National Energy Efficiency Action Plan which sets out significant energy efficiency measures and their expected and achieved energy savings. In its BR4, Greece reported the energy efficiency measures related to the residential and tertiary sectors developed under its fourth National Energy Efficiency Action Plan, such as the regulation on the energy performance of buildings, the Saving Energy at Home programme, and the mandatory installation of solar thermal systems in new residential and tertiary sector buildings.

37. **Renewable energy sources.** Greece developed its policy on promoting RES pursuant to the EU renewable energy directive (2009/28/EC) and the updated directive (EU 2018/2001). In its NECP Greece set a goal of a 35 per cent share of RES in final energy consumption by 2030.

38. The NECP also established the following indicative sector targets for the contribution of RES to gross final energy consumption by 2030: 42.5 per cent for heating and cooling, 19.0 per cent for transportation and 61.0 per cent for electricity. These targets are significantly higher than the established use of RES: in 2016, when the share of RES in gross final energy consumption was 15.2 per cent, the share of RES was 24.2 per cent for heating and cooling, 1.7 per cent for transportation and 23.8 per cent for electricity. Greece reported that the main PaMs related to achieving the RES targets are promoting use of RES for electricity generation, promoting use of RES in industry, using biofuel in transportation and implementing RES-related measures in the residential and tertiary sectors.

39. **Energy supply.** The most significant PaMs related to the power sector are promoting RES for electricity generation, improving the conventional power generation system, increasing the natural gas share in electricity production and interconnecting the grids of several islands with the mainland grid. Using the EU ETS to reduce GHG emissions from thermal power plants is also an important measure.

40. Improving the conventional power generation system includes gradually decommissioning old and inefficient thermal power units and commissioning new power units. The NECP targets include ending the use of lignite in electricity production by 2028 and increasing the share of RES in electricity generation from 23.8 per cent in 2016 to 61.0 per cent by 2030.

41. The mitigation impact of the implemented and adopted PaMs in this sector is estimated to be 26.00 Mt CO_2 eq in emission reductions in 2020 and 29.40 Mt CO_2 eq in 2030, while the mitigation effect of a planned measure (further promotion of RES for electricity generation) is estimated to be 11.79 Mt CO_2 eq in 2030.

42. **Residential and commercial sectors.** The main national policy for the residential and commercial sectors was developed on the basis of the EU directive on the energy performance of buildings (2010/31/EU) and the amending directive (EU 2018/844). The directives provide a general framework for a methodology to calculate the integrated energy performance of buildings, the minimum requirements to improve the energy performance of new buildings and existing buildings undergoing major renovation, energy certification of buildings and regular inspection of boilers, heating installations and air-conditioning systems.

43. The fourth National Energy Efficiency Action Plan calls for promoting natural gas, increasing energy efficiency and implementing renewable energy, as well as several actions concerning the conservation and rational use of energy in the residential and tertiary sectors. Greece reported that the main PaMs in the residential and commercial sectors involve implementing energy efficiency measures (including RES-related measures) and promoting natural gas.

44. Greece reported that the expected effect of the implemented and adopted PaMs on GHG emission reductions in the residential and tertiary sectors is estimated to be 2.66 Mt CO_2 eq in 2020 and 3.09 Mt CO_2 eq in 2030. The estimated mitigation impact of planned PaMs (further promoting natural gas and implementing additional energy efficiency measures) is 2.99 Mt CO_2 eq in 2030.

45. **Transport sector.** The mitigation of GHG emissions from the transport sector is guided by EU transport sector policies, such as the regulation on CO_2 emissions from passenger cars (EC 443/2009), the regulation on CO_2 emissions from vans (EU 510/2011), the directive on marketing of new cars (1999/94/EC), the directive on fuel quality (2009/30/EC) and the directive on deployment of alternative fuels infrastructure (2014/94/EU). Greece reported on its implementation of the policies and strategies of the international organizations for aviation and marine bunker fuels, focusing on EU activities and developments within the International Civil Aviation Organization and the International Maritime Organization.

46. The most significant PaMs in the transport sector are increasing use of biofuel for road transportation, promoting use of natural gas in public transport and road transport measures (e.g. infrastructure improvements, fiscal measures and mode shifting).

47. The expected mitigation effect of implemented and adopted PaMs is estimated to be 1.23 Mt CO_2 eq in 2020 and 1.39 Mt CO_2 eq in 2030. The effect of planned PaMs (further

biofuel use in road transportation and additional road transport measures) is estimated to be 0.62 Mt CO_2 eq in 2030.

48. **Industrial sector.** The main policy instrument for the reduction of GHG emissions in industry is the EU ETS. By putting a price on GHG emissions and thereby giving a financial value to each tonne of emissions saved, the industrial plants covered by the EU ETS are compelled to implement energy efficiency measures, such as investing in combined heat and power, and switching to RES or to feedstocks that emit less CO_2.

49. In December 2016, Greece established a requirement for large industry to either conduct an energy audit every four years or implement an energy or environmental management system. Small to medium-sized enterprises also have access to quality energy audits as a result of the policy.

50. The GHG emission reductions from the implemented and adopted PaMs related to industry are estimated to be 1.01 Mt CO_2 eq in 2020 and 1.17 Mt CO_2 eq in 2030. The mitigation effect of planned measures (further promotion of natural gas and energy efficiency in industry) is estimated to be about 1.28 Mt CO_2 eq in 2030.

(c) Policies and measures in other sectors

51. **Industrial processes.** Most industrial process emissions are regulated by the EU ETS. The exception is emissions from the use and consumption of F-gases. To control emissions from F-gases, the EU has adopted two legislative acts: the directive on air-conditioning systems in small motor vehicles (2006/40/EC) and the regulation on F-gases (EU 517/2014), which covers all other major uses of F-gases.

52. The aim of the above-mentioned regulations is to reduce emissions, prevent leakage and control the use of F-gases. Several related control mechanisms and penalties are implemented in Greece. The actions taken by the EU and its member States under the F-gas regulation will enable the EU to comply with the Kigali Amendment to the Montreal Protocol on a global phase-down of HFCs. The expected GHG emission reductions from the implemented and adopted PaMs related to the reduction of emissions of F-gases are estimated to be 0.46 Mt CO_2 eq in 2020 and 2.30 Mt CO_2 eq in 2030.

53. **Agriculture.** The agriculture sector operates primarily under the common agricultural policy, which is applicable to all EU member States and is aimed at reducing the intensity of agricultural land use and improving management of animal waste. The common agricultural policy contains several measures intended to secure climate benefits through green direct payments to farmers and support for rural development policy. Greece began implementing the most current common agricultural policy regulations in 2015.

54. Related PaMs focus on promoting organic farming, reducing fertilizer use, reducing the intensity of agricultural land use and improving animal waste management. These implemented and adopted PaMs are estimated to result in emission reductions of 0.72 Mt CO_2 eq in 2020 and 1.30 Mt CO_2 eq in 2030.

55. **LULUCF.** EU regulation 2018/841 on the inclusion of GHG emissions and removals from LULUCF in the 2030 climate and energy framework is a very important EU policy document for Greece. There are also numerous national PaMs on issues such as forest management, felling, disposal of products, resin collection and resin cultivation, and so on.

56. Greece provided detailed information on PaMs in this sector including those related to conserving and protecting existing forest land, gradually increasing forest land and improving degraded forest lands. The ERT noted that mitigation impacts were not estimated for measures in the LULUCF sector. During the review, Greece explained that the impact of the measures was not estimated because its economy-wide emission reduction target does not include the LULUCF sector and because the quantification of the mitigation impact would be complex and have a high level of uncertainty.

57. **Waste management.** Greece reported on implementation of both EU and national policies and regulations on waste management. Within the framework of EU policy, it highlighted in particular the fourth circular economy package, the directive on waste (EU 2018/851) and the landfill directive (EU 2018/850). In compliance with EU directives, the

National Waste Management Plan calls for 50 per cent of waste to be recovered through recycling and reuse at the local level by 2020.

58. Greece has implemented numerous measures aiming at reducing landfilling, increasing recycling and improving landfill management in order to enhance the recovery of organic waste and biogas. The total mitigation impacts of implemented and adopted PaMs (recovery of organic waste and recovery of biogas) were estimated to be 1.00 Mt CO_2 eq in 2020 and 2.00 Mt CO_2 eq in 2030.

(d) Response measures

59. Greece reported on its assessment of the economic and social consequences of its response measures, to the extent possible, by indicating that it follows EU policy when developing national climate policy. For developing new policy initiatives on the basis of legislative proposals by the European Commission, an impact assessment system has been established for examining all proposals before any legislation is passed. Procedures have also been introduced for assessing the impacts of EU policies on external countries. Even though there is no explicit dialogue on response measures, these processes are included in various EU cooperation policies and agreements with third countries at a sectoral level (e.g. trade agreements) and at an overarching political level in regional cooperation with Africa, Asia and Latin America, and in bilateral relations with non-EU countries. This ensures that the effects of such policies on non-EU countries are taken into account.

(e) Assessment of adherence to the reporting guidelines

60. The ERT assessed the information reported in the BR4 of Greece and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

2. Estimates of emission reductions and removals and the use of units from market-based mechanisms and land use, land-use change and forestry

(a) Technical assessment of the reported information

61. Greece reported that it does not intend to use units from market-based mechanisms under the Convention to meet its commitment under the ESD. CTF tables 4 and 4(b) indicate that the Party did not use any units from market-based mechanisms in 2016 or 2017. However, EU ETS operators in Greece may use such units subject to limitations under the system. Table 4 illustrates Greece's total GHG emissions and the use of units from market-based mechanisms to achieve its ESD target.

Table 4
Summary of information on the use of units from market-based mechanisms by Greece to achieve its target

Year	*ESD emissions (kt CO_2 eq)*	*AEA (kt CO_2 eq)*	*Use of units from market-based mechanisms (kt CO_2 eq)*[a]	*Annual AEA surplus/deficit (kt CO_2 eq)*[b]	*Cumulative AEA surplus/deficit (kt CO_2 eq)*
2013	44 184.59	58 955.03	NA	14 770.44	14 770.44
2014	44 409.92	59 281.85	NA	14 871.93	29 642.37
2015	45 449.37	59 608.67	NA	14 159.30	43 801.67
2016	44 897.20	59 935.49	NA	15 038.29	58 839.96
2017	45 445.29	59 131.33	NA	13 686.04	72 526.00
2018	44 694.89	59 437.29	NA	14 742.40	87 268.40

Sources: Greece's BR4 and CTF table 4(b), information provided by the Party during the review and EU transaction log (AEAs).

[a] The use of "NA" indicates that the Party stated in its BR that it does not intend to use market-based mechanisms to achieve its target.

[b] A positive number (surplus) indicates that ESD emissions were lower than the AEA, while a negative number (deficit) indicates that ESD emissions were greater than the AEA.

62. In assessing the progress towards achieving the 2020 joint EU target, the ERT noted that Greece's emission reduction target for the ESD is 4.0 per cent below the base-year level (see para. 17 above). In 2018, Greece's emissions covered by the ESD were 24.8 per cent below the AEA under the ESD. Greece indicated that it does not plan to use market-based mechanisms. Thus Greece has a cumulative surplus of 87,268.38 kt CO_2 eq with respect to its AEAs between 2013 and 2018.

63. The ERT noted that Greece is making progress towards its ESD target by implementing mitigation actions that are delivering significant emission reductions and without using units from the market-based mechanisms under the Convention.

64. Although Greece does not use market-based mechanisms to achieve its ESD target, operators under the EU ETS in the country may use them to achieve their target. The majority of emissions from such operators in Greece come from operators of a stationary installation that have received a free allocation or an entitlement to use international credits from 2008 to 2012. These operators (in cases when they have not implemented a significant capacity extension) are entitled to use international credits during 2008–2020 up to an amount corresponding to a maximum of 11 per cent of their allocation in 2008–2012. Therefore, these operators are permitted to use up to about 34.7 million carbon credits in 2008–2020. Since 2013 it has no longer been possible to track the use of flexible mechanisms in the EU ETS directly. Greece reported that aggregated data at the EU level are available in CTF table 4 of the BR4 of the EU.

(b) Assessment of adherence to the reporting guidelines

65. The ERT assessed the information reported in the BR4 of Greece and recognized that the reporting is complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

3. Projections overview, methodology and results

(a) Technical assessment of the reported information

66. Greece reported updated projections for 2020, 2030 and 2040 relative to actual inventory data for 2017 under the WEM scenario. The WEM scenario reported by Greece includes implemented and adopted PaMs until 2018.

67. In addition to the WEM scenario, Greece reported the WAM scenario. The WAM scenario reflects the effect of all implemented, adopted and planned PaMs, and includes the additional PaMs specified in the NECP, adopted on 31 December 2019. The definitions provided indicate that the scenarios were prepared according to the UNFCCC reporting guidelines on BRs. However, the ERT notes that the PaMs in the NECP should be included in the WEM scenario in the next submission. Greece did not report a WOM scenario (see issue 1 in table 8).

68. The projections are presented on a sectoral basis using the same sectoral categories as those used in the reporting on mitigation actions, and on a gas-by-gas basis for CO_2, CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case), as well as NF_3 for 2020–2030. The projections are also provided in an aggregated format for each sector and for a Party total using GWP values from the AR4.

(b) Methodology, assumptions and changes since the previous submission

69. The methodologies, models and approaches used for the preparation of the projections are identical to those used for the preparation of the emission projections for the NC7. In the BR4, Greece reported that projections for the energy sector are based on models used for official energy planning, and spreadsheet models were used for non-energy sectors. Greece provided supporting information via appropriate links in its BR4 to descriptions of the models used for energy planning. During the review, Greece clarified that the spreadsheet models used for non-energy sectors were developed specifically for the BR and no references are available for them. Greece reported that the models have been updated to account for

improved inventory reporting and include 2017 inventory data. Greece reported in CTF table 5 the key variables and assumptions used in the preparation of the projection scenarios.

70. To prepare its projections, Greece relied on several key underlying assumptions: annual GDP of 2010 EUR 200.08 billion and 2010 EUR 295.48 billion in 2020 and 2030, respectively; a population decrease from 10.69 million people in 2020 to 10.03 million people in 2030; an increase in energy prices (oil, coal and natural gas) between 2020 and 2030; and an increase in the EU ETS carbon price from EUR 24.00/t CO_2 in 2020 to EUR 51.70/t CO_2 in 2030. The assumptions were updated on the basis of the most recent economic developments known at the time of the preparation of the projections.

71. Greece also provided information on sensitivity analyses, which were conducted for the energy sector only, since it accounts for around 80 per cent of GHG emissions in the country. Sensitivity analyses were conducted for a number of important assumptions, such as the growth trends of final energy consumption of various sectors. Greece also compared the results of the WEM and WAM scenarios with these scenarios from the previous submission under the sensitivity analysis. For 2030, the emissions under the current WEM and WAM scenarios are 9 and 29 per cent lower, respectively, than under the 2030 WEM scenario reported in the BR3. This is attributed to the differences in the main assumptions used in the scenarios. That is, the CO_2 emission allowances considered under the BR4 WEM and WAM scenarios are 70–95 per cent higher that those used for the WEM scenario in the BR3, and the BR4 WEM and WAM scenarios reflect new targets that were adopted under the integrated NECP, pursuant to EU regulation 2018/1999 (the target for the share of RES in gross final energy consumption for 2030 was set to 35 per cent, while in the WEM scenario in the BR3 it was 25 per cent).

(c) Results of projections

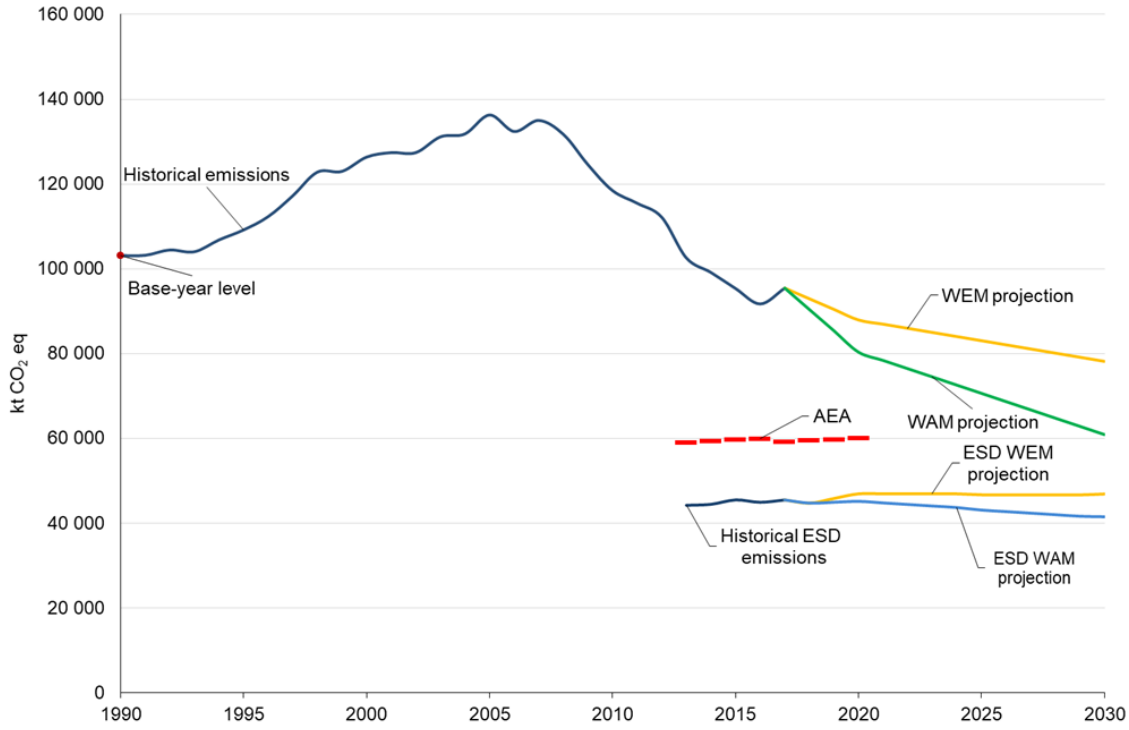
72. The projected emission levels under different scenarios and information on the quantified economy-wide emission reduction target are presented in table 5 and figure 1.

Table 5
Summary of greenhouse gas emission projections for Greece

	Total GHG emissions		*Emissions under the ESD*	
	GHG emissions (kt CO_2 eq per year)	*Change in relation to 1990 level (%)*	*ESD emissions (kt CO_2 eq per year)*	*Comparison to 2020 AEA (%)*
2020 AEA under the ESD[a]	NA	NA	60 049.19	100.0
Inventory data 1990	103 101.31	–	NA	NA
Inventory data 2017	95 420.78	–7.4	45 445.30	75.7
WEM projections for 2020	87 900.20	–14.7	46 892.00	78.1
WAM projections for 2020	80 308.56	–22.1	45 105.00	75.1
WEM projections for 2030	78 134.51	–24.2	46 846.00	NA
WAM projections for 2030	60 854.93	–41.0	41 475.00	NA

Sources: Greece's BR4 and CTF table 6. ESD emissions for 2017 were provided by Greece during the review.
Note: The projections are for GHG emissions excluding LULUCF.
[a] The quantified economy-wide emission reduction target under the Convention is a joint target of the EU and its member States. The target is to reduce emissions by 20 per cent compared with the base-year (1990) level by 2020. Greece's target under the ESD is 4 per cent below the 2005 level by 2020.

Figure 1
Greenhouse gas emission projections reported by Greece



Sources: EU transaction log (AEAs) and Greece's BR4 and CTF tables 1 and 6; historical ESD emissions were provided by Greece during the review.

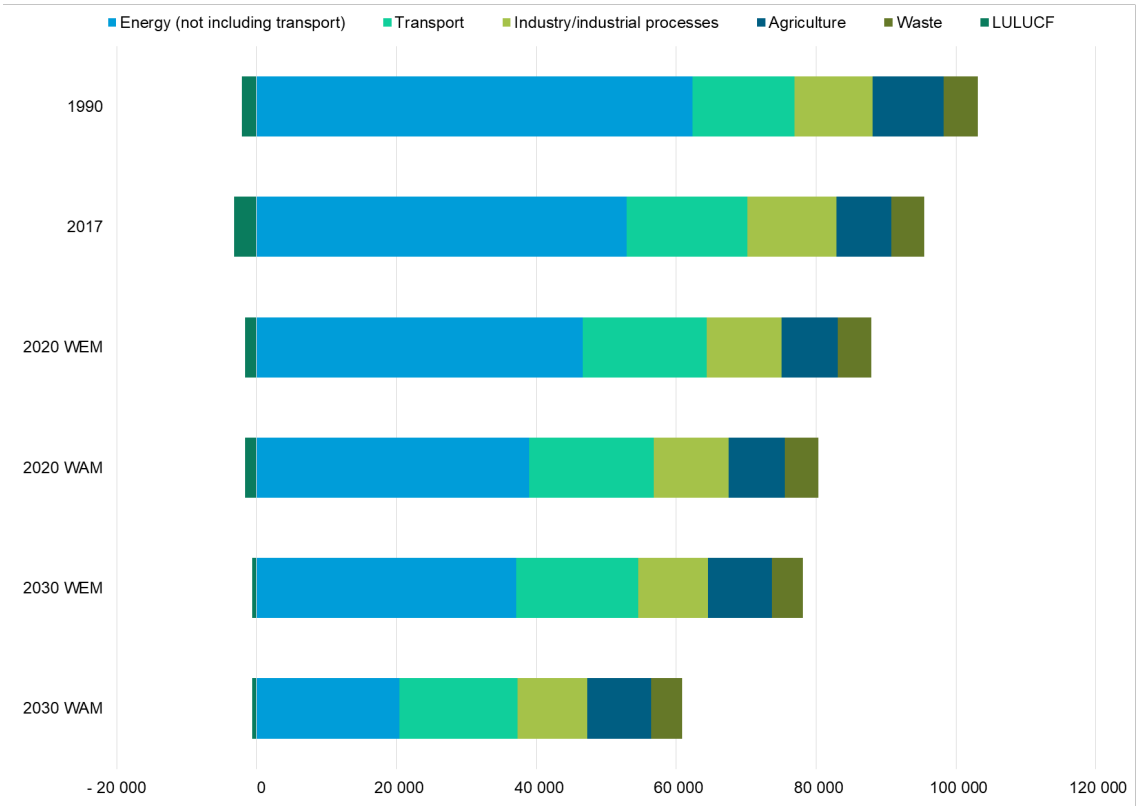
73. Greece's total GHG emissions excluding LULUCF in 2020 and 2030 are projected under the WEM scenario to decrease by 14.7 and 24.2 per cent, respectively, below the 1990 level. Under the WAM scenario emissions in 2020 and 2030 are projected to be lower than those in 1990 by 22.1 and 41.0 per cent, respectively.

74. Greece's target under the ESD is to reduce ESD emissions by 4 per cent below the 2005 level by 2020 (see para. 17 above). Greece's AEAs, which correspond to its national emission target under the ESD, change linearly from 58,955.03 kt CO_2 eq in 2013 to 60,049.19 kt CO_2 eq for 2020. The projected level of emissions under the WEM and WAM scenarios is 21.9 and 24.9 per cent, respectively, below the AEAs for 2020. The ERT noted that the Party's cumulative surplus of AEAs of 87,268.38 kt CO_2 eq up until 2018 will be further increased by 2020, which suggests that Greece expects to meet its target under the WEM scenario.

75. In addition to its target under the ESD, Greece committed itself to achieving a domestic target of a 42 per cent reduction in emissions below the 1990 level by 2030. The projections (estimated at a 41 per cent reduction in emissions below the 1990 level by 2030 under the WAM scenario) indicate that Greece is on track to achieving its domestic target for 2030 under the WAM scenario. However, a few additional PaMs may be required if the Party is to reach the target.

76. Greece presented the WEM and WAM scenarios by sector for 2020 and 2030, as summarized in figure 2 and table 6.

Figure 2
Greenhouse gas emission projections for Greece presented by sector



Source: Greece's BR4 CTF table 6.

Table 6
Summary of greenhouse gas emission projections for Greece presented by sector

	GHG emissions and removals (kt CO_2 eq)					*Change (%)*			
		2020		*2030*		*1990–2020*		*1990–2030*	
Sector	*1990*	*WEM*	*WAM*	*WEM*	*WAM*	*WEM*	*WAM*	*WEM*	*WAM*
Energy (not including transport)	62 363.31	46 654.57	38 987.07	37 116.16	20 393.03	–25.2	–37.5	–40.5	–67.3
Transport	14 506.98	17 730.61	17 806.33	17 443.62	16 866.40	22.2	22.7	20.2	16.3
Industry/ industrial processes	11 226.96	10 677.82	10 677.95	10 011.86	10 032.64	–4.9	–4.9	–10.8	–10.6
Agriculture	10 140.24	8 061.30	8 061.30	9 141.94	9 141.94	–20.5	–20.5	–9.8	–9.8
LULUCF	–2 107.91	–1 634.28	–1 634.28	–644.79	–644.79	–22.5	–22.5	–69.4	–69.4
Waste	4 863.82	4 775.91	4 775.91	4 420.92	4 420.92	–1.8	–1.8	–9.1	–9.1
Other	–	–	–	–	–	–	–	–	–
Total GHG emissions excluding LULUCF	**103 101.31**	**87 900.20**	**80 308.56**	**78 134.51**	**60 854.93**	**–14.7**	**–22.1**	**–24.2**	**–41.0**

Source: Greece's BR4 CTF table 6.

77. According to the projections reported for 2020 under the WEM scenario, the most significant emission reductions are expected to occur in the energy (not including transport) and agriculture sectors, amounting to projected reductions of 25.2 and 20.5 per cent between 1990 and 2020, respectively. However, according to the same projections, the LULUCF sector shows a projected decrease in removals. The pattern of projected emissions reported for 2030 under the same scenario remains the same for all sectors except agriculture, which shows an increase in projected emissions between 2020 and 2030 that is primarily due to

projected activity data trends that are related to GDP growth (e.g. increases in animal population and use of synthetic fertilizer), despite the impact of mitigation measures.

78. If additional measures are considered (i.e. under the WAM scenario), the patterns of emission reductions by 2020 presented by sector are significantly different for the energy sector (excluding transport), owing to a higher uptake of mitigation PaMs; slightly change for the transport and industry and industrial processes sectors; and remain the same as in the WEM scenario for the other sectors.

79. Greece presented the WEM and WAM scenarios by gas for 2020 and 2030, as summarized in table 7.

Table 7
Summary of greenhouse gas emission projections for Greece presented by gas

	GHG emissions and removals (kt CO_2 eq)					*Change (%)*			
		2020		*2030*		*1990–2020*		*1990–2030*	
Sector	*1990*	*WEM*	*WAM*	*WEM*	*WAM*	*WEM*	*WAM*	*WEM*	*WAM*
CO_2[a]	83 375.36	68 288.99	60 960.42	58 420.01	41 523.58	–18.1	–26.9	–29.9	–50.2
CH_4	10 906.80	9 937.58	9 710.91	10 074.29	9 744.62	–8.9	–11.0	–7.6	–10.7
N_2O	7 443.14	4 591.17	4 554.77	4 998.25	4 944.84	–38.3	–38.8	–32.8	–33.6
HFCs	1 182.82	4 946.90	4 946.90	4 506.29	4 506.29	318.2	318.2	281.0	281.0
PFCs	190.26	130.00	130.00	130.00	130.00	–31.7	–31.7	–31.7	–31.7
SF_6	2.93	5.56	5.56	5.67	5.62	89.8	89.8	93.5	91.8
NF_3	–	–	–	–	–	–	–	–	–
Total GHG emissions without LULUCF	**103 101.31**	**87 900.20**	**80 308.56**	**78 134.51**	**60 854.93**	**–14.7**	**–22.1**	**–24.2**	**–41.0**

Source: Greece's BR4 CTF table 6.
[a] Greece did not include indirect CO_2 emissions in its projections.

80. For 2020, the most significant reductions are projected for N_2O, PFC, CO_2 and CH_4 emissions: 38.3, 31.7, 18.1 and 8.9 per cent between 1990 and 2020, respectively, whereas HFC and SF_6 emissions are projected to increase significantly.

81. CO_2 emissions are projected to continue decreasing from 2020 to 2030, whereas N_2O and CH_4 emissions are both projected to increase from 2020 to 2030, driven by changes in non-energy sectors, mainly in agriculture. HFC emissions are projected to decrease during this period, whereas PFC and SF_6 emissions are projected to remain almost unchanged from 2020 to 2030.

82. If additional measures are considered (i.e. under the WAM scenario), the patterns of emission reductions by 2020 presented by gas are significantly different for CO_2, reaching 26.9 per cent in 2020 and 50.2 per cent in 2030, owing to a significant uptake of mitigation actions in the energy sector.

(d) Assessment of adherence to the reporting guidelines

83. The ERT assessed the information reported in the BR4 of Greece and identified issues relating to transparency and thus adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 8.

Table 8
Findings on greenhouse gas emission projections reported in the fourth biennial report of Greece

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
1	Reporting requirement specified in paragraph 28	The Party did not report a WOM scenario in its BR4. However, it reported that, in order to estimate the impact of each policy or measure, it compared the WEM scenario with a hypothetical baseline scenario (which did not include the mitigation effect of the examined policy or measure).

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
	Issue type: transparency Assessment: encouragement	During the review, the Party explained that its approach involved using a different baseline scenario for each policy or measure considered and that combining these scenarios into a single WOM scenario did not offer any added value. The ERT acknowledges that the Party's approach enables it to evaluate the impact of each policy or measure, including when additional PaMs are implemented, which would not be possible if it used a single baseline scenario. However, the ERT encourages the Party to improve the transparency of its reporting by explaining in its next BR why it did not develop or report a WOM scenario.
2	Reporting requirement specified in paragraph 47 Issue type: transparency Assessment: encouragement	Greece did not provide historical data for its main assumptions (e.g. for GDP and population) in CTF table 5. The footnote to the table indicates that historical data were not used for developing the projections reported. During the review, Greece clarified that the only key assumption for which historical data were used to estimate projections was GDP for the agriculture sector. The Party indicated that it will include those historical values in its next submission. The ERT encourages the Party to improve the transparency of its reporting by providing historical data for the main assumptions relevant to all sectors (energy and non-energy) in CTF table 5.

Note: Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs, as per para. 11 of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete, transparent and thus adhering to the UNFCCC reporting guidelines on NCs and on BRs.

D. Provision of financial, technological and capacity-building support to developing country Parties

1. Technical assessment of the reported information

(a) Approach and methodologies used to track support provided to non-Annex I Parties

84. In its BR4 Greece reported information on its provision of financial, technological and capacity-building support to non-Annex I Parties.

85. Greece provided details on how the support it has provided is "new and additional", including how it has determined resources as being "new and additional". Greece's definition is related to when the support was committed and whether or not it was included in the previous BR. Greece's process for qualifying resources as "new and additional" is based on the annual budget determination exercise, meaning that these resources were committed after the submission of the previous NC or BR and therefore not included therein. Thus, each annual commitment represents new and additional resources.

86. Greece reported the support that it has provided to non-Annex I Parties, distinguishing between support for mitigation and adaptation activities and recognizing the capacity-building elements of such support. For example, the Party reported the financial support provided through bilateral cooperation with developing countries, including support in the form of scholarships and imputed costs for students from developing countries studying at Greek universities and financial support for refugees in Greece. The Party explained that it tracks finance for adaptation and mitigation by using the Rio markers.

87. The BR4 includes information on the national approach to tracking the provision of support, indicators, delivery mechanisms used and allocation channels tracked. Greece included information on how it has refined its approach to tracking climate support and methodologies as compared with what was reported in its NC7. Greece provided in its BR4 additional information on its approach to estimating climate finance flows by using Rio markers data to track the provision of financial support. The Party reported that it translates the Rio marker data into climate finance flows by transforming the marker of the mitigation or adaptation activity, which can be scored as "principal", "significant" or "not targeted", into the corresponding share of financial support (100, 40 or 0 per cent, respectively).

88. Greece described the methodology and underlying assumptions used for collecting and reporting information on financial support, including underlying assumptions, guidelines and eligibility criteria. The methodology the Party used for preparing information on international climate support is based on the Rio markers and is provided in the *OECD DAC Rio Markers for Climate: Handbook*.

89. Greece provided information on its national law 4369/2016, the aim of which is to promote, facilitate and finance the transfer of climate-friendly technologies to non-Annex I Parties; support the deployment of such technologies for the benefit of non-Annex I Parties; support the development and enhancement of endogenous capacities and technologies of non-Annex I Parties; and scale up private contributions to assist developing countries in reducing their GHG emissions and adapting to climate change. This law allows part of the funds from auctions of EU ETS emission allowances to be allocated to assistance for developing countries. Under the provisions of the law, the Party may develop activities involving transfer of climate-friendly technologies to non-Annex I Parties.

90. In addition to applying the Rio markers, Greece used other methods to track support provided to non-Annex I Parties through various channels. In 2017, the Ministry of Foreign Affairs evaluated the outcomes of projects and programmes funded by Greece. Relevant data and documentation were collected, including status of implementation reports, annual reports and audit reports provided by the recipient countries, with a view to tracking delivery of the projects' outcomes. Greece did not develop a system for tracking private financial flows. The Party reported in the BR4 and in CTF tables 7, 7(a) and 7(b) the financial resources provided as ODA and through multilateral channels, bilateral cooperation, regional cooperation or EU institutions. Greece stressed the importance of its financial contributions as an EU member State and explained that the EU is committed to ensuring that the funding provided is used effectively and that EU financial support is channelled to climate change mitigation and adaptation activities in developing countries.

(b) Financial resources

91. Greece reported information on its provision of financial support to non-Annex I Parties as required under the Convention, including on financial support provided, committed and pledged, allocation channels and annual contributions.

92. Greece described how its resources assist non-Annex I Parties in mitigating GHG emissions and adapting to the adverse effects of climate change and contribute to technology development and transfer and capacity-building related to mitigation and adaptation. The Party reported that it will continue to strive to achieve the United Nations Millennium Development Goals, which represent a policy framework for economic stability and prosperity. In addition, the Party reported that it will intensify its efforts to achieve the qualitative objectives of development assistance, which it has committed to under the Monterrey Consensus of the International Conference on Financing for Development, the Paris Declaration on Aid Effectiveness, the European Consensus on Development, the Accra Agenda for Action and the Busan Partnership for Effective Development Cooperation. Greece did not describe how its resources address the adaptation and mitigation needs of non-Annex I Parties or assist them in adapting to any economic or social consequences of response measures.

93. With regard to the most recent financial contributions aimed at enhancing the implementation of the Convention by developing countries, Greece reported that its climate finance has been allocated on the basis of projects and programmes managed by multilateral institutions and international organizations, such as the African Union, the Caribbean Community Climate Change Centre, the Indian Ocean Commission, the United Nations Development Programme, the United Nations Environment Programme, the United States Agency for International Development and the World Meteorological Organization. Greece contributed to the following multilateral funds and organizations in 2017 and 2018: the European Investment Bank, the International Bank for Reconstruction and Development, the International Development Association, the International Fund for Agricultural Development, IUCN, the Multilateral Fund for the Implementation of the Montreal Protocol and the UNFCCC. Greece provided bilateral assistance mainly for refugee causes, including a contribution to the EU Facility for Refugees in Turkey for Syrian refugees.

94. As in its BR3, Greece reiterated that, owing to the difficult fiscal circumstances it faces, its net bilateral and multilateral ODA disbursements have been declining since 2008, both in absolute terms and as a percentage of its gross national income. The ERT noted that ODA volumes for the last two reported years, 2017 and 2018, have decreased in comparison with that in 2016. Table 9 summarizes the information reported by Greece on its provision of financial support.

Table 9
Summary of information on provision of financial support by Greece in 2017–2018
(Millions of United States dollars)

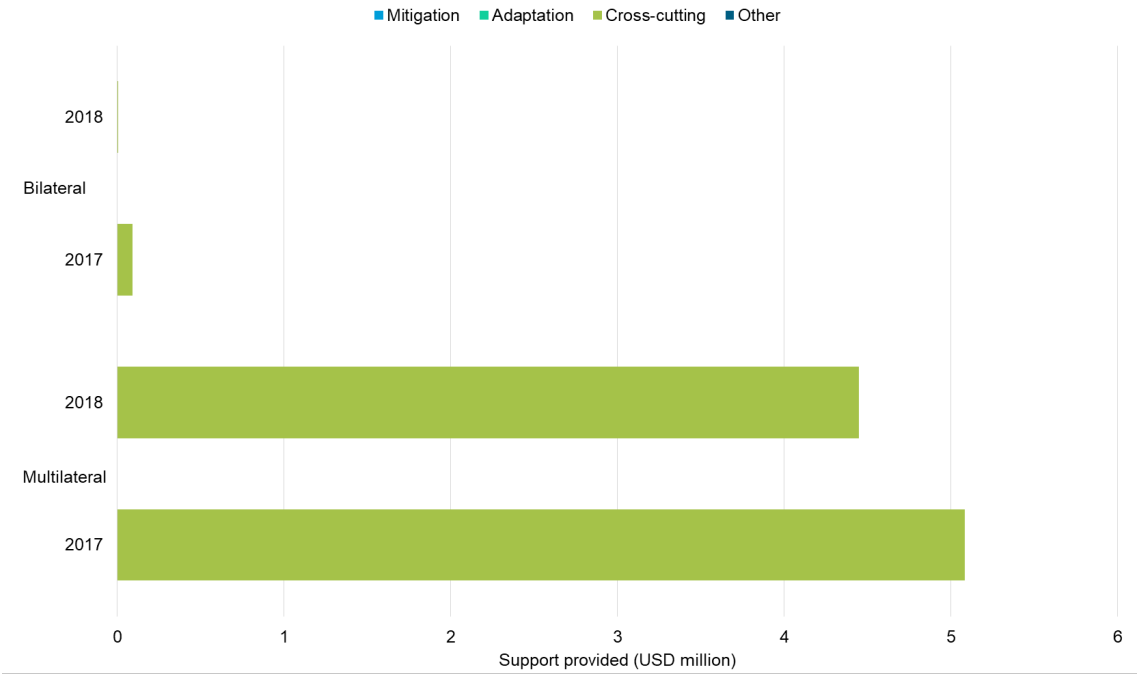
Allocation channel of public financial support	*Year of disbursement*	
	2017	*2018*
ODA	313.58	290.44
Climate-specific contributions through multilateral channels, including:	5.08	4.45
Regional development banks	4.97	4.34
United Nations bodies	0.11	0.11
Climate-specific contributions through bilateral, regional and other channels	0.09	0.00

Sources: BR4 CTF tables and Query Wizard for International Development Statistics, available at http://stats.oecd.org/qwids/.

95. Greece reported on its climate-specific public financial support, totalling USD 5.17 million in 2017 and USD 4.45 million in 2018. The Party reported in its BR4 that its total financial contributions through ODA decreased in 2018, totalling USD 290.44 million, compared with USD 313.58 million in 2017 and USD 368.00 million in 2016.

96. During the reporting period, Greece placed a particular focus on countries in the Middle East, North Africa and Eastern Europe through IUCN programmes, including those related to the Ramsar Convention, to which it allocated USD 0.09 million in 2017 and USD 830 in 2018. Information on climate-specific financial support from the public sector provided through multilateral and bilateral channels and the allocation of that support by target area is presented in figure 3 and table 10. Note that variances in contribution amounts from year to year can occur that are not reflective of trends owing to factors such as biennial or triennial contribution cycles of some multilateral funds, timing of approval of individual bilateral projects or changes in exchange rates.

Figure 3
Provision of financial support by Greece in 2017–2018



Source: Greece's BR4 CTF tables 7, 7(a) and 7(b).

Table 10
Summary of information on channels of financial support used in 2017–2018 by Greece
(Millions of United States dollars)

	Year of disbursement				*Share (%)*	
Allocation channel of public financial support	*2017*	*2018*	*Difference*	*Change (%)*	*2017*	*2018*
Detailed information by type of channel						
Multilateral channels						
Mitigation	–	–	–	–	–	–
Adaptation	–	–	–	–	–	–
Cross-cutting	5.08	4.45	–0.63	–12.5	100.0	100.0
Other	–	–	–	–	–	–
Total multilateral	**5.08**	**4.45**	**–0.63**	**–12.5**	**100.0**	**100.0**
Bilateral channels						
Mitigation	–	–	–	–	–	–
Adaptation	–	–	–	–	–	–
Cross-cutting	0.09	0.00	–0.09	–99.1	100.0	100.0
Other	–	–	–	–	–	–
Total bilateral	**0.09**	**0.00**	**–0.09**	**–99.1**	**100.0**	**100.0**
Total multilateral and bilateral	**5.17**	**4.45**	**–0.73**	**–14.0**	**100.0**	**100.0**

Source: Greece's BR4 CTF tables 7, 7(a) and 7(b).

97. The BR4 includes detailed information on the financial support provided through multilateral, bilateral and regional channels in 2017 and 2018. More specifically, Greece contributed through multilateral channels, as reported in CTF table 7(a), USD 5.08 million and 4.45 million for 2017 and 2018, respectively. The contributions were made to specialized multilateral financial institutions, including regional development banks, such as the European Investment Bank, the International Bank for Reconstruction and Development, the

International Development Association, the International Fund for Agricultural Development and the Multilateral Fund for the Implementation of the Montreal Protocol. In its BR4 Greece reported that its total flows granted to EU institutions for foreign development assistance in 2018 amounted to about USD 213 million. The ERT noted that the information reported in the BR4 on financial support and climate-specific financial contributions through multilateral channels and bilateral or regional cooperation was not consistent with that in CTF table 7(a) (see issue 3 in table 11).

98. The BR4 includes detailed information on the total financial support provided through bilateral channels in 2017 (USD 85.00 million) and 2018 (USD 38.64 million). In CTF table 7(b), the Party included its climate-specific contributions through bilateral and regional cooperation channels in 2017 (USD 0.09 million) and 2018 (USD 830). The Party reported that its bilateral financial support is directed to IUCN only.

99. The BR4 provides information on the public financial support provided in 2017 and 2018 in CTF table 7. The total financial support was from public resources and allocated to cross-cutting projects and programmes. In 2017, 72.9 per cent of the total public financial support was allocated through multilateral channels and 27.1 per cent through bilateral, regional and other channels. In 2018, all public financial support was again allocated to cross-cutting projects and programmes; 86.7 per cent was allocated through multilateral channels and 13.3 per cent through bilateral, regional and other channels.

100. The ERT noted that, in 2017 and 2018, the financial contributions made through multilateral channels were allocated on a cross-sectoral basis, as reported in CTF table 7(a). In 2017 and 2018, the financial contributions made through bilateral and regional channels were also allocated on a cross-sectoral basis, as reported in CTF table 7(b). Greece's main contribution in 2017 and 2018, as reported in the CTF tables 7(b), was to IUCN under the Ramsar Convention.

101. CTF tables 7(a) and 7(b) include information on the types of financial instrument used for providing assistance to developing countries. The ERT noted that all of Greece's climate-specific financial support in 2017 and 2018 was provided in the form of grants.

102. Greece did not report information on the mobilization of private finance. The Party explained in the BR4 that it does not currently have a system for tracking private financial flows since its current emphasis is on tracking public financial flows associated with climate change. The Party explained during the review that it welcomes the international work to develop the new total official support for sustainable development concept and a measurement framework for public, private, domestic and international leveraged financial resources. The new statistical system will facilitate the documentation of the full range of resources tailored for the achievement of Sustainable Development Goals.

103. The Party reported in its BR4 that article 50 of national law 4369/2016 facilitates the promotion and scaling up of private investment, provided that part of the funds from auctioning the EU ETS allowances are allocated to assist non-Annex I Parties in reducing their GHG emissions and adapting to climate change. During the review, Greece provided more details, specifying that the allocation of public funds under the law would promote the scale-up of private investment in mitigation and adaptation activities in developing country Parties. Greece also explained that in October 2019 the EU, together with Argentina, Canada, Chile, China, India, Indonesia, Kenya, Morocco, Norway and Switzerland, launched the International Platform on Sustainable Finance with the goal of scaling up the mobilization of private capital towards environmentally sustainable investments.

104. Greece reported in CTF tables 7 and 7(a) the climate-specific financial support it provided through multilateral channels as grants disbursed through ODA for cross-cutting activities in local currency and United States dollars. The Party provided the currency exchange rates and explained how they were determined in the custom footnotes to the CTF tables.

105. The EU is among the institutions listed in table 58 of the BR4, and Greece allocated most of its climate-related financial contributions (85 per cent in 2018) to international development cooperation and assistance initiatives led by the EU. Thus, Greece reported that the EU is the largest contributor to the Green Climate Fund, with a total of USD 4.66 billion

committed in 2017. Greece also reported that EU financial support was channelled, through its instruments for foreign development assistance (e.g. the European Development Fund), to climate change mitigation and adaptation activities in developing countries, and that the EU ensures that the funding provided is used effectively.

(c) Technology development and transfer

106. Greece provided information on steps, measures and activities related to technology transfer, access and deployment benefiting developing countries, including information on activities undertaken by the public sector. Greece provided examples of support provided for the deployment and enhancement of the endogenous capacities and technologies of non-Annex I Parties. One example of such support provided is the regional cooperation on environmental protection implemented under the Black Sea Economic Cooperation Organization. Within this framework, member States cooperate to develop their national green economy pathways and low-carbon policies, focusing on development and improvement of energy infrastructure in the Black Sea region. In this context, the Black Sea Economic Cooperation Organization Green Energy Network serves as a knowledge and green investment hub through which institutions from Greece promote RES and energy efficiency measures in the Black Sea region. Through its activities, the Network aims to involve market stakeholders in green projects and programmes, with funding from the regional and national financial institutions.

107. The bilateral cooperation activities on technology transfer implemented by the Greek Centre for Renewable Energy Sources and Saving and the projects implemented by Hellenic Aid are financed by the EU and through national funds. Greece, through Hellenic Aid, finances projects aiming to facilitate access to or transfer environmentally sound technologies and promote the use of RES in a number of developing countries and countries with economies in transition. For example, through its specialized institutions, Greece facilitated the transfer of renewable energy technologies, such as energy-efficient and solar power equipment, to several Eastern European countries (i.e. Albania, Bosnia and Herzegovina, Georgia, Republic of Moldova and Serbia).

108. The ERT took note of the information provided in CTF table 8 on recipient countries, target areas, measures and focus sectors of technology transfer programmes. Greece described the mitigation activities and measures related to technology transfer activities undertaken and funded by the public sector in the areas of energy, transport and economic development. The activities were developed under the Black Sea Economic Cooperation framework and implemented in Western and Central Africa (green energy investment projects), Eastern and Southern Africa (technical assistance for projects under the EU initiative Sustainable Energy for All) and Southern and Eastern Mediterranean countries (implementation of the Mitigation Enabling Energy Transition in the Mediterranean Region project).

109. The ERT noted that Greece reported on its measures and activities that have been implemented or planned since its NC7 or BR3, such as the above-mentioned project involving Mediterranean countries, which is being implemented in 2018–2020 by the Greek Centre for Renewable Energy Sources and Saving and funded by the EU and Greece. The two-year project was developed by the Mediterranean Association of the National Agencies for Energy Management and the Regional Centre for Renewable Energy and Energy Efficiency to support regional cooperation and build technical capacity for energy transition in Southern and Eastern Mediterranean countries. The project has the goal of fostering energy transition in countries in the region by enhancing the share of RES and energy efficiency in their energy mix. The major project activities include assessing strategies and policies related to energy efficiency and RES; training and public awareness; attracting sustainable investments; and supporting the Renewable Energy and Energy Efficiency Platform of the Union for the Mediterranean.

110. The projects developed through the EU Technical Assistance Facility for the Sustainable Energy for All initiative aim to support developing countries to improve their policy and regulatory frameworks to provide and enable conditions for increased public and private investment in energy access, energy supplies, renewable energy and energy efficiency in Africa.

111. The Party did not report on success and failure stories in relation to technology transfer activities and measures taken to promote, facilitate and finance the transfer and deployment of climate-friendly technologies. However, during the review the Party indicated that it considered all implemented projects to be success stories.

112. The Party did not distinguish in its BR4 between public sector and private sector technology transfer activities. As reported in the BR4, bilateral cooperation to support technology transfer is funded by the EU and the national Government. During the review, Greece explained that it has no information on technology transfer activities undertaken by the private sector.

(d) Capacity-building

113. In its BR4 and CTF table 9, Greece supplied information on how it has provided capacity-building support for mitigation, adaptation and technology that responds to the existing and emerging needs identified by non-Annex I Parties. Greece described individual measures and activities related to capacity-building support in textual and tabular format. Examples include the Horizon 2020 initiative, which addresses multiple issues in Mediterranean countries and aims to provide capacity-building to tackle sources of pollution of the Mediterranean Sea, such as municipal waste, urban wastewater and industrial pollution. Greece also reported trilateral cooperation projects with Cyprus and Israel and with Cyprus and Egypt relating to adaptation that were launched in 2016.

114. Greece reported that it has supported climate-related capacity development activities relating to adaptation and other sectors. Greece also reported on how it has responded to the existing and emerging capacity-building needs of non-Annex I Parties by following the principles of national ownership, stakeholder participation, country-driven demand, cooperation between donors and across programmes, and impact assessment and monitoring. Greece explained that the assessments provided by existing networks (such as the Mediterranean EU Water Initiative) and direct communication with recipient countries ensure that the objectives of its capacity-building support address the existing and emerging needs identified by non-Annex I Parties.

115. In the case of trilateral cooperation activities (between Greece, Cyprus and Israel and Greece, Cyprus and Egypt) the thematic areas are based around issues of common concern and the competent authorities of the two partner non-Annex I Parties select the areas of cooperation that respond to their existing and emerging needs.

116. For example, in the case of the trilateral cooperation with Cyprus and Egypt, those countries identified their priority thematic areas as preparedness and response to major marine pollution incidents in the Mediterranean, combating coastal erosion and coastal zone management, biological diversity and nature protection, waste management and adaptation to climate change. The cooperation emphasizes the exchange of information on monitoring and observation mechanisms, best practices and know-how, including climate adaptation indicators and climate adaptation web applications and tools, with the aim of creating a solid knowledge base for adaptation approaches, tools and methods.

117. The cooperation with Cyprus and Israel focuses on protecting the marine environment (through satellite, coastal and marine environment monitoring), climate change adaptation (by developing a common set of adaptation indicators), and water and wastewater management (focused on olive oil wastewater and management of sewage sludge). The three countries exchange best practices and experiences related to adapting and implementing the Sustainable Development Goals.

2. Assessment of adherence to the reporting guidelines

118. The ERT assessed the information reported in the BR4 of Greece and identified issues relating to completeness, transparency and thus adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 11.

Table 11
Findings on provision of support to developing country Parties from the review of the fourth biennial report of Greece

No.	*Reporting requirement, issue type and assessment*	*Description of the finding with recommendation or encouragement*
1	Reporting requirement specified in paragraph 16 Issue type: transparency Assessment: recommendation	The Party explained in its BR4 how it seeks to ensure that the financial support it provides to developing countries addresses their needs with regard to climate change adaptation and mitigation. However, it was not clear how the effectiveness of its support was assessed. During the review, the Party explained that data gathered during an evaluation performed by the Ministry of Foreign Affairs in 2017, which was reported in the BR4, were also used to assess the effectiveness of the support provided by Greece. The relevant data and documentation included implementation status reports, annual reports and audit reports provided by the recipient countries or institutions. The ERT recommends that Greece enhance the transparency of its reporting by explicitly and clearly explaining in its next BR, to the extent possible, how it seeks to ensure that the resources it provides effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation; for example, by describing how the evaluation performed proved the effectiveness of the support provided.
2	Reporting requirement specified in paragraph 17 Issue type: completeness Assessment: recommendation	The Party did not report information in its BR4 on the financial support it has provided, committed or pledged for the purpose of assisting non-Annex I Parties in adapting to any economic and social consequences of response measures. During the review, Greece explained that the financial support provided through multilateral channels is aimed at assisting non-Annex I Parties in mitigating GHG emissions and adapting to the adverse effects of climate change and any economic or social consequences of response measures, in line with the scope, priorities and strategic plans of the relevant international organizations. In addition, the support provided through bilateral and regional contributions was disbursed to IUCN, a regional channel that shares those objectives. The Party also informed the ERT about its contribution to EU funds, the aim of which is to assist non-Annex I Parties in adapting to any economic or social consequences of response measures. The various sources of financial assistance provided by the EU include the European Commission's support to developing countries, the Global Climate Change Alliance (an EU flagship initiative) and the EU External Investment Plan; contributing to the joint goal of mobilizing USD 100 billion per year by 2020 to support developing countries; and the replenishment of the Green Climate Fund. The ERT recommends that Greece report in its next BR information on the financial support it has provided, committed or pledged for the purpose of assisting non-Annex I Parties in adapting to any economic or social consequences of response measures.
3	Reporting requirement specified in paragraph 17 Issue type: transparency Assessment: recommendation	The core/general columns in CTF tables 7 and 7(a) do not include information on the overall financial support provided from ODA (the entries for both years reported are blank in the core/general columns), although such information is reported in the BR4. The footnote to CTF table 7 indicates that the core contributions are reported in the analytical breakdown of the table 7 worksheet in Greece's reporting under article 16 of EU regulation 525/2013; however, there is no such footnote to CTF table 7(a). During the review, Greece explained that it reported its total ODA contribution provided through bilateral and regional cooperation and multilateral channels in tables 56 and 58 of the BR4. CTF tables 7 and 7(a) include information only on climate-related bilateral and multilateral financial assistance provided as a result of applying the Rio markers methodology. In addition, Greece provided the table 7 worksheet it used for reporting under article 16 of EU regulation 525/2013, which was referenced in the documentation box of CTF table 7. Nevertheless, the multilateral institutions and programmes listed in this table are not consistent with those included in table 58 of the BR4. The ERT recommends that the Party improve the transparency of its next BR by providing information on its overall financial contribution and climate-specific financial contributions to assist non-Annex I Parties, in textual and tabular formats, clearly specifying in the BR in textual format the climate-specific contributions

No.	Reporting requirement, issue type and assessment	Description of the finding with recommendation or encouragement
		made as a result of applying the Rio markers methodology; by including information on the overall financial support provided, committed and/or pledged through bilateral and regional cooperation and multilateral channels in CTF tables 7 and 7(a); and by explaining in the BR the reasons for any differences in the total support reported in CTF table 7(a) and the BR.
4	Reporting requirement specified in paragraph 21	The Party reported in its BR4 activities, programmes and projects for promoting and facilitating technology transfer for the benefit of non-Annex I Parties. However, Greece did not include success and failure stories in this area.
	Issue type: transparency	During the review, Greece explained that all reported technology transfer projects are to be considered success stories on the basis of the information reported.
	Assessment: encouragement	The ERT encourages Greece to enhance the transparency of its reporting by explicitly stating in its BR whether the programmes and projects reported are considered success or failure stories.

Note: Item listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on BRs. The reporting on the requirements not included in this table is considered to be complete, transparent and thus adhering to the UNFCCC reporting guidelines on BRs.

III. Conclusions and recommendations

119. The ERT conducted a technical review of the information reported in the BR4 and CTF tables of Greece in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the reported information mostly adheres to the UNFCCC reporting guidelines on BRs and provides an overview of emissions and removals related to the Party's quantified economy-wide emission reduction target; assumptions conditions and methodologies related to the attainment of the target; the progress of Greece towards achieving its target; and the Party's provision of support to developing country Parties.

120. Greece's total GHG emissions excluding LULUCF covered by its quantified economy-wide emission reduction target were estimated to be 10.7 per cent below its 1990 level, whereas total GHG emissions including LULUCF were 11.8 per cent below its 1990 level, in 2018. The decrease in total emissions was driven mainly by the economic recession in 2008–2016 and the effect of mitigation actions, such as the introduction of RES and energy efficiency measures.

121. Under the Convention Greece committed to contributing to the achievement of the joint EU quantified economy-wide emission reduction target of a 20 per cent reduction in emissions below the 1990 level by 2020. The target covers all sectors and CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, expressed using GWP values from the AR4. Emissions and removals from the LULUCF sector are not included.

122. Under the ESD, Greece has a target of reducing its emissions by 4 per cent below the 2005 level by 2020. The 2013–2020 progression in Greece's AEAs (its national emission target under the ESD) is 58,955.03–60,049.19 kt CO_2 eq.

123. In 2018, Greece's ESD emissions were 24.8 per cent (14,742.40 kt CO_2 eq) below the AEA under the ESD. Greece indicated that it does not plan to use market-based mechanisms to meet its ESD target. Thus, Greece has a cumulative surplus of 87,268.38 kt CO_2 eq with respect to its AEAs between 2013 and 2018, which indicates that Greece is making progress towards its target.

124. The GHG emission projections provided by Greece in its BR4 correspond to the WEM and WAM scenarios. Under these scenarios, emissions are projected to be 14.7 and 22.1 per cent below the 1990 level, respectively. According to the projections under the WEM scenario, ESD emissions are estimated to reach 87,900.20 kt CO_2 eq by 2020. Under the WAM scenario, Greece's emissions from ESD sectors in 2020 are projected to be 80,308.56 kt CO_2 eq. The projected level of emissions under the WEM and WAM scenarios is 21.9 and 24.9 per cent, respectively, below the AEAs for 2020. The ERT noted that information on

the projections provided by Greece and the cumulative surplus of AEAs suggest that Greece expects to meet its target under the WEM scenario.

125. The key overarching cross-sectoral policy in the EU is the 2030 climate and energy framework, adopted in 2014, which includes more ambitious targets that are expected to be revised further upwards owing to the European Green Deal. The EU-wide policies are operationalized through the NECP. Greece's NECP sets out a target of reducing GHG emissions by 42 per cent by 2030 in comparison with the 1990 GHG emission level, surpassing the EU-wide target (40 per cent). Greece reported that the PaMs with the most significant mitigation impact in 2020 and 2030 are the promotion of RES for electricity generation, improvements in the conventional power generation system, implementation of energy efficiency measures in the residential and tertiary sectors, the reduction of emissions of F-gases and recovery of organic waste.

126. The expected total GHG emission reduction potential of implemented and adopted PaMs was estimated to be 33.08 Mt CO_2 eq by 2020 and 40.65 Mt CO_2 eq by 2030, while the assessed additional GHG emission reduction potential of planned PaMs was estimated at 16.68 Mt CO_2 eq by 2030.

127. Greece continues to provide climate financing to developing countries in line with its climate finance programmes, which provide support through multilateral channels, international organizations and bilateral and regional cooperation. National law 4369/2016 is a key document that calls for promoting, facilitating and financing the transfer of access to and the deployment of climate-friendly technologies for the benefit of non-Annex I Parties, supporting the development and enhancement of endogenous capacities and technologies of non-Annex I Parties, and scaling up private contributions to assist developing countries to reduce their GHG emissions and adapt to climate change. The Party has reduced the level of its financial support since the BR3; its public financial support totalled USD 314.00 million in 2017 and USD 290.44 million in 2018. All of the financial support went to cross-cutting projects and programmes.

128. Greece continues to provide information on support for technology development and transfer and capacity-building. In the area of technological support, priority was given to mitigation projects and programmes. A notable initiative is Mitigation Enabling Energy Transition in the Mediterranean Region. The two-year project was developed by the Mediterranean Association of the National Agencies for Energy Management and the Regional Centre for Renewable Energy and Energy Efficiency to support regional cooperation. In the area of capacity-building, priority was given to projects on mitigation and adaptation in recipient countries. A good example of support for capacity-building is the Horizon 2020 initiative, implemented by Mediterranean countries to address multiple issues, such as developing and monitoring energy efficiency policies in the building and transport sectors through forward-looking socioeconomic research, and to build capacity to mitigate sources of pollution of the Mediterranean Sea, such as municipal waste, urban wastewater and industrial pollution. Greece has also successfully carried out trilateral cooperation projects on adaptation, launched in 2016, with Cyprus and Israel and with Cyprus and Egypt.

129. In the course of the review, the ERT formulated the following recommendations for Greece to improve its adherence to the UNFCCC reporting guidelines on BRs in its next BR:

(a) To improve the completeness of its reporting by reporting information on the financial support it has provided, committed or pledged for the purpose of assisting non-Annex I Parties in adapting to any economic or social consequences of response measures (see issue 2 in table 11);

(b) To improve the transparency of its reporting by:

(i) Clearly explaining, to the extent possible, how it seeks to ensure that the resources it provides effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation; for example, by describing how the evaluation performed proved the effectiveness of the support provided (see issue 1 in table 11);

(ii) Providing information on its overall financial contribution and climate-specific financial contributions to assist non-Annex I Parties, in textual and tabular formats,

clearly specifying in the BR the climate-specific contributions made as a result of applying the Rio markers methodology; by including information on the overall financial support provided, committed and/or pledged through bilateral and regional cooperation and multilateral channels in the core/general column of CTF tables 7 and 7(a); and by explaining in the BR the reasons for any differences in the total support reported in CTF table 7(a) and the BR (see issue 3 in table 11);

(c) To improve the timeliness of its reporting by submitting its next BR on time (see para. 6 above).

Annex

Documents and information used during the review

A. Reference documents

2019 GHG inventory submission of Greece. Available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2019.

2020 GHG inventory submission of Greece. Available at https://unfccc.int/ghg-inventories-annex-i-parties/2020.

BR4 of the EU. Available at https://unfccc.int/BRs.

BR4 of Greece. Available at https://unfccc.int/BRs.

BR4 CTF tables of Greece. Available at https://unfccc.int/BRs.

"Compilation of economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention". FCCC/SBSTA/2014/INF.6. Available at http://unfccc.int/resource/docs/2014/sbsta/eng/inf06.pdf.

European Green Deal. Available at https://ec.europa.eu/info/files/communication-european-green-deal_en.

"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories". Annex to decision 24/CP.19. Available at http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf.

"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications". FCCC/CP/1999/7. Available at http://unfccc.int/resource/docs/cop5/07.pdf.

"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention". Annex to decision 13/CP.20. Available at http://unfccc.int/resource/docs/2014/cop20/eng/10a03.pdf.

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Report on the technical review of the BR3 of Greece. FCCC/TRR.3/GRC. Available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/review-reports-of-seventh-national-communications-and-third-biennial-reports.

"UNFCCC biennial reporting guidelines for developed country Parties". FCCC/SBSTA/2014/INF.6. Annex I to decision 2/CP.17. Available at http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf.

B. Additional information provided by the Party

Responses to questions during the review were received from Dimitris Niavis (Ministry of Environment and Energy of Greece), including additional material. The following documents[1] were provided by Greece:

Greece's report under article 16 of the EU regulation on a mechanism for monitoring and reporting. Available at http://cdr.eionet.europa.eu/gr/eu/mmr/art16_finance/.

Preliminary status of multilateral development banks and other International Organisations' reporting to the OECD DAC for 2017 flows. Available at http://www.oecd.org/dac/financing-sustainable-development/development-finance-data/Imputed%20multilateral%20shares.xlsx.

[1] Reproduced as received from the Party.