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Report of the technical review of the second biennial report of Greece

According to decision 2/CP.17, developed country Parties are requested to submit their second biennial reports by 1 January 2016, that is, two years after the due date for submission of a full national communication. This report presents the results of the technical review of the second 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".

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I. Introduction and summary

A. Introduction

1. This report covers the centralized technical review of the second biennial report (BR2)[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). In accordance with the same decision, a draft version of this report was communicated to the Government of Greece, which provided comments that were considered and incorporated with revisions into this final version of the report.

2. The review took place from 30 May to 4 June 2016 in Bonn, Germany, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Ms. Maryna Bereznytska (Ukraine), Mr. Nagmeldin Elhassan (Sudan), Ms. Violeta Hristova (Bulgaria), Ms. Aiymgul Kerimray (Kazakhstan), Mr. Mahendra Kumar (Fiji), Ms. Sara Moarif (France), Ms. Lilia Taranu (Republic of Moldova), Mr. Antonin Vergez (France), Mr. Vute Wangwacharakul (Thailand) and Ms. Songli Zhu (China). Ms. Bereznytska and Mr. Kumar were the lead reviewers. The review was coordinated by Ms. Ruta Bubniene, Mr. Javier Hanna and Mr. Pedro Torres (UNFCCC secretariat).

B. Summary

3. The expert review team (ERT) conducted a technical review of the information reported in the BR2 of Greece in accordance with the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs).

1. Timeliness

4. The BR2 was submitted on 29 March 2016, after the deadline of 1 January 2016 mandated by decision 2/CP.17. The common tabular format (CTF) tables were submitted on 17 March 2016. Greece informed the secretariat about its difficulties with submitting its BR2 and CTF tables by the deadline. The ERT noted the delay in the submission of the BR2 and CTF tables.

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

5. Issues and gaps related to the reported information identified by the ERT are presented in table 1 below. The information reported by Greece in its BR2 is mostly in adherence with the UNFCCC reporting guidelines on BRs as per decision 2/CP.17.

[1] The biennial report submission comprises the text of the report and the common tabular format (CTF) tables. Both the text and the CTF tables are subject to the technical review.

Table 1
Summary of completeness and transparency issues related to mandatory reported information in the second biennial report of Greece

Chapter of the biennial report	*Completeness*	*Transparency*	*Paragraphs with recommendations*
Greenhouse gas emissions and trends	Complete	Transparent	
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Transparent	
Progress in achievement of targets	Complete	Mostly transparent	42
Provision of support to developing country Parties	Partially complete	Partially transparent	63, 64, 66–69, 71–73, 81–82

Note: A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in chapter III.

II. Technical review of the reported information

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

6. Greece has provided a summary of information on greenhouse gas (GHG) emission trends for the period 1990–2013 in its BR2 and CTF tables 1(a)–(d). The BR2 makes reference to the national inventory arrangements, which are explained in more detail in the national inventory report included in Greece's 2015 annual inventory submission (in chapter 1.2).

7. The national inventory arrangements were established in accordance with the reporting requirements related to national inventory arrangements contained in the "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" that are required by paragraph 3 of the UNFCCC reporting guidelines on BRs. Further, Greece provided information on changes in the national inventory arrangements since its first biennial report (BR1): two national focal points in the Ministry of Environment and Energy have changed, and the responsibility for the compilation of the emissions inventory for the land use, land-use change and forestry (LULUCF) sector has been transferred from the National Technical University of Athens to an independent consultant.

8. The information reported in the BR2 on emission trends is consistent with that reported in the 2015 annual inventory submission of Greece. To reflect the most recently available data, Greece's 2016 annual inventory submission has been used as the basis for discussion in chapter II.A of this review report.

9. Total GHG emissions[2] excluding emissions and removals from LULUCF increased by 29.8 per cent between 1990 and 2005, and decreased thereafter to reach a level of 101,403.31 kilotonnes of carbon dioxide equivalent (kt CO_2 eq) in 2014 (a decrease of 3.3 per cent below the 1990 level). Total GHG emissions including net emissions or removals

[2] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent excluding LULUCF, unless otherwise specified. Values in this paragraph are calculated based on the 2016 inventory submission of 25 April 2016.

from LULUCF followed a similar pattern and reached 98,166.64 kt CO_2 eq in 2014 (an increase of 4.3 per cent above the 1990 level). The decrease in emissions between 1990 and 2014 can be attributed mainly to carbon dioxide (CO_2) and nitrous oxide (N_2O) emissions, which decreased by 4.5 per cent and 36.7 per cent (excluding LULUCF), respectively, between 1990 and 2014. Over the same period, emissions of methane (CH_4) decreased by 11.5 per cent, while emissions of combined fluorinated gases, such as perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF_6), increased by 328.6 per cent.

10. The steady increase in total GHG emissions between 1990 and 2005 (29.8 per cent), which was followed by a small variation in 2006 and a sharp decrease between 2007 and 2014 (24.9 per cent), was driven mainly by growth in the energy sector, in particular, energy industries and transport. Between 1990 and 2005, the trend is mainly explained by an increase in energy consumption, particularly in the residential and tertiary sectors, and an increase in passenger car ownership and transport activity owing to an improvement in the living standards in Greece. In the period 2007–2014, the decrease in emissions is mainly attributed to the economic and financial crisis but also to changes in the energy supply mix due to the introduction of natural gas and renewable energy sources (RES).

11. The ERT noted that, during the period 1990–2014, Greece's gross domestic product (GDP) per capita increased by 16.6 per cent while GHG emissions per GDP and GHG emissions per capita decreased by 22.2 per cent and 9.3 per cent, respectively. Those changes are attributed to both the increase in GDP (and in the GDP per capita) by 24.3 per cent and the modest overall decrease in total GHG emissions over the same period. Table 2 below illustrates the emission trends by sector and some economic indicators relevant to GHG emissions for Greece.

Table 2
Greenhouse gas emissions by sector and some indicators relevant to greenhouse gas emissions for Greece for the period 1990–2014

	GHG emissions (kt CO_2 eq)					*Change (%)*		*Share by sector (%)*	
Sector	*1990*	*2000*	*2010*	*2013*	*2014*	*1990–2014*	*2013–2014*	*1990*	*2014*
1. Energy	76 914.70	96 742.40	92 765.39	78 867.41	75 206.62	–2.2	–4.6	73.4	74.2
A1. Energy industries	43 252.76	54 932.09	52 211.41	49 367.80	45 937.66	6.2	–6.9	41.3	45.3
A2. Manufacturing industries and construction	9 404.19	9 936.57	6 900.74	5 287.88	5 475.46	–41.8	3.5	9.0	5.4
A3. Transport	14 536.41	18 899.14	22 418.44	17 845.70	17 595.55	21.0	–1.4	13.9	17.4
A4.–A5. Other	8 512.03	11 512.36	9 899.42	5 086.69	4 998.67	–41.3	–1.7	8.1	4.9
B. Fugitive emissions from fuels	1 209.31	1 462.22	1 335.40	1 279.34	1 199.28	–0.8	–6.3	1.2	1.2
C. CO_2 transport and storage	NO	NO	NO	NO	NO	NA	NA	NA	NA
2. IPPU	11 226.96	15 176.38	11 661.84	11 974.28	12 368.83	10.2	3.3	10.7	12.2
3. Agriculture	10 185.94	9 229.33	8 945.17	8 785.14	8 743.10	–14.2	–0.5	9.7	8.6
4. LULUCF	–2 278.78	–1 884.85	–3 260.71	–3 148.45	–3 236.67	42.0	2.8	NA	NA
5. Waste	6 499.52	6 539.59	5 360.89	5 042.45	5 084.76	–21.8	0.8	6.2	5.0

Sector	GHG emissions (kt CO_2 eq)					Change (%)		Share by sector (%)	
	1990	*2000*	*2010*	*2013*	*2014*	*1990–2014*	*2013–2014*	*1990*	*2014*
6. Other	NO	NO	NO	NO	0.00	NA	NA	NA	0.0
Total GHG emissions without LULUCF	**104 827.11**	**127 687.69**	**118 733.29**	**104 669.27**	**101 403.31**	**–3.3**	**–3.1**	**100.0**	**100.0**
Total GHG emissions with LULUCF	**102 548.33**	**125 802.84**	**115 472.58**	**101 520.82**	**98 166.64**	**–4.3**	**–3.3**	**NA**	**NA**
Indicators									
GDP per capita (thousands 2011 USD using PPP)	21.07	25.37	29.26	24.20	24.57	16.6	1.5	NA	NA
GHG emissions without LULUCF per capita (t CO_2 eq)	10.28	11.82	10.68	9.55	9.33	–9.3	–2.3	NA	NA
GHG emissions without LULUCF per GDP unit (kg CO_2 eq per 2011 USD using PPP)	0.49	0.47	0.36	0.39	0.38	–22.2	–3.7	NA	NA

Sources: (1) GHG emission data: Greece's 2016 annual inventory submission, version 1.0 of 25 April 2016; (2) GDP per capita data: World Bank.

Note: The ratios per capita and per GDP unit as well as the changes in emissions and the shares by sector are calculated relative to total GHG emissions without LULUCF using the exact (not rounded) values, and may therefore differ from the ratio calculated with the rounded numbers provided in the table.

Abbreviations: GDP = gross domestic product, GHG = greenhouse gas, IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable, NO = not occurring, PPP = purchasing power parity.

B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target

12. In its BR2 and CTF tables 2(a)–(f), Greece reported a description of its target, including associated conditions and assumptions. CTF tables 2(a)–(f) contain the required information in relation to the description of the Party's emission reduction target, such as the base year, gas and sector covered, global warming potential (GWP) used, approach to counting emissions and removals from the LULUCF sector and use of market-based mechanisms. Further information on the target and the assumptions, conditions and methodologies related to the target is provided in chapter 3 of the BR2.

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 European Union (EU) economy-wide emission reduction target of 20 per cent below the 1990 level by 2020. The EU offered to move to a 30 per cent reduction on the condition that other developed countries commit to a comparable target and developing countries contribute according to their responsibilities and respective capabilities under a new global climate change agreement.

14. The target for the EU and its member States is formalized in the EU 2020 climate and energy package. This legislative package regulates emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using GWP values from the Intergovernmental Panel on Climate Change

(IPCC) Fourth Assessment Report (AR4) to aggregate the GHG emissions of the EU up to 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 as well as new market mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. Companies can make use of such units to fulfil their requirements under the EU Emissions Trading System (EU ETS).

15. The EU 2020 climate and energy package includes the EU ETS and the effort-sharing decision (ESD) (see chapter II.C.1 below). Further information on this package is provided in chapter 3.2 of the BR2. The EU ETS covers mainly point emissions sources in the energy, industry and aviation sectors. For the period 2013–2020, an EU-wide cap has been put in place with the goal of reducing emissions by 21 per cent below the 2005 level by 2020. Emissions from sectors covered by the ESD are regulated by targets specific to each member State, which leads to an aggregate reduction at the EU level of 10 per cent below the 2005 level by 2020.

16. Under the ESD, Greece has a target to reduce its total emissions by 4 per cent below the 2005 level by 2020 from sectors covered by the ESD (non-ETS sectors). National emission targets for 2020 under the ESD have been translated into binding quantified annual emission allocations (AEAs) for the period 2013–2020. Greece's AEAs change following a linear path from 58,955.03 kt CO_2 eq in 2013 to 61,242.77 kt CO_2 eq in 2020.[3]

17. Under the framework of the EU 2020 climate and energy package, Greece has committed to a target for RES of 18 per cent of the final energy consumption by 2020, a target of 10 per cent consumption of biofuels by 2020 and a target for primary energy savings of 20 per cent by 2020. With regard to RES, Greece further adopted a national target of 20 per cent of the final energy consumption by 2020.

18. In response to a question raised by the ERT during the review, Greece further clarified that the accomplishment of all EU ETS, ESD, RES and energy efficiency targets will ensure that the EU and its member States will be in a position to meet its 2020 target under the Convention. The ERT noted the usefulness of the information provided. The ERT also considers that reporting additional and clear information on the national targets of Greece and how they will contribute towards achieving the EU economy-wide emission reduction target would increase the transparency of reporting in the next biennial report (BR) submission.

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

19. This chapter provides information on the review of the reporting by Greece on the progress made in reducing emissions in relation to the target, mitigation actions taken to achieve its target, and the use of units from market-based mechanisms and LULUCF.

[3] European Commission decision 2013/162/EU of 26 March 2013 "on determining member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No. 406/2009/EC of the European Parliament and of the Council" and European Commission implementing decision 2013/634/EU of 31 October 2013 "on the adjustments to member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No. 406/2009/EC of the European Parliament and of the Council".

1. Mitigation actions and their effects

20. In its BR2 and CTF table 3, Greece reported on its progress in the achievement of its target and the mitigation actions implemented since its sixth national communication (NC6) and BR1 to achieve its target. The information on mitigation actions organized by sector and by gas is provided in CTF table 3. Further information on the mitigation actions related to the Party's target is provided in chapter 4.1 of the BR2.

21. This report highlights the changes made since the publication of the Party's NC6 and BR1. In chapter 4.1.3 of its BR2, Greece has provided information on changes in its domestic institutional arrangements, used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress made towards its target, stating that no new institutions were set up and no other changes have taken place in its domestic institutional arrangements since the NC6.

22. Greece provided information on the assessment of the economic and social consequences of its response measures. Greece follows the EU policy to address any possible economic and/or social impacts of its climate policies and measures (PaMs) on other countries. The EU has an established process, which includes an internal integrated approach, for impact assessment to address all significant economic, social and environmental impacts of new legislation, policies and initiatives (see chapter 4.10 of the EU BR1). In addition, there is also a procedure for assessing the impacts of the EU climate policies on non-EU countries. The impacts of such PaMs are discussed in the framework of bilateral and regional cooperation, such as trade agreements and regional cooperation with countries in Africa, Asia and Latin America.

23. Greece reported some information on the domestic arrangements established for the process of self-assessment of compliance with emission reductions required by science, and on the progress made in the establishment of national rules for taking action against non-compliance with emission reduction targets. Greece complies with the ESD, which sets specific targets to each member State translated into AEAs and an annual review process to check compliance. After the review, the EU issues implementation decisions in the case of non-compliance (excessive emissions), and a deduction from a Party's AEAs for the subsequent year may be decided.

24. With regard to the EU ETS, Greece clarified, in response to a question raised by the ERT during the review, that stationary installations and aircraft operators covered by the EU ETS are required to have an approved monitoring plan, according to which emissions are monitored and reported on an annual basis. The data in the annual emissions report must be verified by an accredited verifier, and operators must surrender the equivalent number of emission allowances. This annual procedure of monitoring, reporting and verification, as well as all processes connected to these activities, is known as the 'compliance cycle' of the EU ETS.

25. In terms of institutional arrangements, Greece clarified that the Ministry of Environment and Energy is designated as the responsible authority for the implementation of EU ETS and ESD provisions.

26. The ERT noted the relevance of the information provided and considers that including the information on its domestic institutional arrangements under the framework of the EU ETS compliance cycle in its next BR would increase the transparency of reporting.

27. 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. This package is supplemented by renewable energy and energy efficiency legislation, 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 (see table 3 below).

28. 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 industries, PFC emissions from aluminium production and CO_2 emissions from industrial processes (since 2013).

29. The ESD became operational in 2013 and covers sectors outside the EU ETS, including transport (excluding domestic and international aviation, and international maritime transport), residential and commercial buildings, agriculture, waste and other sectors, together accounting for 55–60 per cent of the GHG emissions of the EU. The ESD aims to decrease GHG emissions in the EU by 10 per cent below the 2005 level by 2020 and includes binding annual targets for each member State for 2013–2020, which are underpinned by the national policies and actions of the member States (see paras. 16–18 above).

30. Greece's main policy framework relating to energy and climate change is the Second National Climate Change Programme adopted in 2002. At the national level, Greece introduced policies to achieve its targets under the ESD and domestic emission reduction targets. The key policies reported in the BR2 are "Promotion of RES for electricity generation" and "Improvements in the conventional power generation system", including "Promotion of natural gas". The impacts of these mitigation actions are the most significant of the reported mitigation actions (as shown in CTF table 3).

31. The RES policy aims to promote the use of RES in electricity generation in Greece (see para. 17 above). The implementation of Greece's RES road map is based on a legislative framework, including a law on accelerating the development of RES to deal with climate change in addition to other regulations under the authority of the Ministry of Environment, Energy and Climate Change. The national legislative framework aims to accelerate the permitting procedure of RES projects as much as possible, by simplifying considerably the licensing of smaller projects, offering new attractive feed-in-tariffs for all RES technologies, introducing new clauses for offshore wind energy and establishing an Autonomous RES Office to act as a 'one-stop shop' for electricity generated from RES.

32. With regard to a policy on the improvement of the conventional power generation system, the main implemented/adopted measures are: the gradual decommissioning of old, inefficient and polluting thermal power units and their replacement by new, efficient power units with an increase in the natural gas share in electricity production; and the interconnection of islands to the mainland electricity grid. The policy on promotion of natural gas in the national energy system is considered as one of the largest investments in Greece, and it constitutes a major priority of the national energy sector.

33. The economic instruments used for the promotion of natural gas include: the reduction of personal income taxation for converting consumption from oil to natural gas; the reduction of the value-added tax rate; the provisions of lower prices than for the competitive liquid fuels; discounts on connection fees; heavy marketing through commercial means; availability through continuous development of networks (infrastructure); and liberalization of electricity and natural gas markets.

34. The ERT noted that, in CTF table 3, the estimated mitigation impact of the PaM on promotion of natural gas in the power sector reported in the BR2 (7,700 kt CO_2 eq) is about 35 per cent lower than the estimated impact of the same PaM reported in the BR1 (11,951

kt CO_2 eq). Similarly, the estimated impact of the PaM on promotion of RES reported in the BR2 (14,400 kt CO_2 eq) is about 29 per cent lower than the estimate of the same PaM reported in the BR1 (20,323 kt CO_2 eq).

35. In response to a question raised by the ERT during the review, Greece indicated that the GHG emission projection under the 'with measures' (WEM) scenario in the NC6/BR1 was based on a projected electricity demand of 61.9 TWh in 2020, whereas, in the BR2, the projected electricity demand is 53.3 TWh for the same year, which is 14 per cent lower than the value given in the BR1.

36. Also, in responding to a request made by the ERT during the review to provide information on the approach used to estimate the impacts of each PaM in the BR2, including information on any differences compared with the approach used in estimating the effects of PaMs in BR1, Greece explained that it followed the same approach as that used in the BR1 and clarified that the mitigation effect of each policy is estimated by comparing the WEM scenario with a hypothetical scenario that does not include that policy.

37. The brevity of the information provided in the BR2 and during the review does not enable the ERT to undertake the technical assessment of the estimated values of the impacts of the PaMs and to understand the reasons behind the significant changes in the estimates of PaMs reported in CTF table 3 in the BR1 and in the BR2. The ERT considers that transparency could be improved if Greece provided a description of the approach, assumptions and methods used in estimating the impact of its PaMs and clarified any changes in the reported values in its next BR submission.

38. Other policies that have delivered significant emission reductions include "Implementation of energy-efficient measures in residential and tertiary sector", which include: energy conservation programmes in various industrial units incentivized by a Development Assistance Act; incentives for the creation of 'green business parks'; enhancing investment projects in industrial and business areas; and planned innovation zones with energy-efficient and low-carbon facilities. Energy efficiency policies also include measures such as promotion of energy-efficient appliances and application of minimum energy performance requirements. This involves, for example, providing energy upgrades to buildings in the residential and tertiary sector and upgrading of heating system boilers/burner units.

39. Other policies include those on biofuel use in transportation, recovery of organic waste and recovery of biogas, as well as improved management of land, increasing organic farming and decreasing the use of fertilizers in the agriculture sector.

40. In CTF table 3, the ERT noted changes in the reporting of the names of the same PaMs between the BR1 and the BR2. In the BR1, the mitigation action named "Promotion of natural gas in power sector" was changed in the BR2 to "Improvement in the conventional power generation system". In a response to a question raised by the ERT during the review, Greece clarified that the information reported in the BR2 is more accurate and is based on more recent data than those in the BR1. Greece further explained that the name of the PaM was changed in order to better reflect the mitigation actions that are included in this PaM.

41. The ERT also observed changes in the starting dates of some of the mitigation actions in CTF table 3 between the BR1 and the BR2. The mitigation actions "Recovery of biogas" and "Recovery of organic waste" have different starting dates: in the BR1 it was the year 2003, whereas in the BR2 it was the year 2002. Likewise, the starting date of the measure "Biofuel use in transportation" was 2006 in the BR1 and 2005 in the BR2. Moreover, the starting date of the measure "Promotion of natural gas in transportation" was 2001 in the BR1 and 1999 in the BR2. During the review, Greece explained that the information reported in the BR2 is more accurate and of better quality than that in the BR1.

The starting year for these mitigation actions has been changed to reflect the actual dates of the decisions that have initiated their implementation. Greece also provided the titles and dates of these decisions.

42. The ERT acknowledges the usefulness of the information provided during the review. It recommends that Greece improve the transparency of its reporting by elaborating on the rationale for the changes of the reported impacts of the PaMs that had changes made since the previous BR submission (see paras 36–37 above) and by clarifying any changes in the names and starting years of implementation in its next BR submission (see paras 40–41 above).

43. Table 3 below provides a concise summary of the key mitigation actions and estimates of their mitigation effects reported by Greece to achieve its target.

Table 3
Summary of information on mitigation actions and their impacts reported by Greece

Sector affected	*List of key mitigation actions*	*Estimate of mitigation impact by 2020(kt CO_2 eq)*
Policy framework and cross-sectoral measures	Second National Climate Change Programme	IE
	European Common and Coordinated Policies and Measures	IE
	European Union Emissions Trading System	IE
Energy:		
Energy supply	Improvement in the conventional power generation and promotion of natural gas, including increase of natural gas consumption in the industry, residential and tertiary sectors	8 320
Transport	Road measures, use of biofuel and natural gas	2 510
Renewable energy	Electricity generation	14 400
Energy efficiency	Measures in the industry, residential and tertiary sectors	2 500
IPPU	Reduced fluorinated gas emissions	460
Agriculture	Improvements in the management of land, increasing organic farming and decreasing use of fertilizers	880
LULUCF	Expansion of forest land, forest management and protection	NE
Waste	Recovery of organic waste and biogas	1 300

Note: The estimates of mitigation impact are estimates of emissions of carbon dioxide or carbon dioxide equivalent avoided in a given year as a result of the implementation of mitigation actions.

Abbreviations: IE = included elsewhere, IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NE = not estimated.

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

44. Greece reported in its BR2 and CTF table 4 its use of units from market-based mechanisms under the Convention and the contribution of LULUCF to achieving its target. This information was provided for the base year (1990) and for the years 2010–2013. In a footnote to CTF table 4, Greece indicated that it will not use any international units for 2013 and 2014 in relation to its target under the ESD, and that the use of international

credits from the EU ETS is allowed under certain restrictions. Greece also indicated in a footnote to CTF table 4(a)I that LULUCF is not included in the 2020 target under the Convention. The ERT noted that CTF table 4(a)II, on counting of emissions and removals from the LULUCF sector in relation to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, has not been provided.

45. Table 4 below illustrates Greece's total GHG emissions, the contribution of LULUCF and the use of units from market-based mechanisms to achieve its target.

Table 4
Summary of information on the use of units from market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made by Greece towards the achievement of its target

Year	*Emissions excluding LULUCF (kt CO_2 eq)*	*Contribution from LULUCF (kt CO_2 eq)*[a]	*Emissions including contribution from LULUCF (kt CO_2 eq)*	*Use of units from market-based mechanisms (kt CO_2 eq)*
1990	105 008.10	NA	NA	NA
2010	119 115.38	NA	NA	NA
2011	116 066.65	NA	NA	NA
2012	112 579.39	NA	NA	NA
2013	105 110.51	NA	NA	NA

Sources: Greece's second biennial report and common tabular format tables 1, 4, 4(a)I and 4(b).
Abbreviations: LULUCF = land use, land-use change and forestry, NA = not applicable.
[a] The European Union's unconditional commitment to reduce greenhouse gas emissions by 20 per cent below the 1990 level by 2020 does not include emissions/removals from LULUCF.

46. To assess the progress towards the achievement of the 2020 target, the ERT noted that Greece's emission reduction target under the ESD is 4 per cent below the 2005 level (see para. 16 above). As discussed in chapter II.B above, Greece's 2013 emissions from the sectors covered by the ESD, excluding LULUCF, (46,761.59 kt CO_2 eq) are 20 per cent lower than the AEAs for the same year (58,955.03 kt CO_2 eq).

47. The ERT noted that Greece is making progress towards its emission reduction target.

3. Projections

48. Greece reported in its BR2 and CTF table 6(a) updated projections for 2020 and 2030 relative to actual inventory data for 2013 under the WEM scenario. Projections are presented on a sectoral basis, using the same sectoral categories as used in the chapter on mitigation actions, and on a gas-by-gas basis for the following GHGs: CO_2, CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case). Projections are also provided in an aggregated format for each sector as well as for total GHG emissions, using GWP values from the IPCC AR4. Emission projections related to fuel sold to ships and aircraft engaged in international transport were reported separately and were not included in the totals.

49. The ERT noted that Greece reported detailed information on the factors and activities influencing emissions for the waste and agriculture sectors. With regard to the industrial processes and product use (IPPU) sector, Greece provided limited information on the factors and activities driving emission projections for the mineral, metal and chemical industries. Information on the factors and activities driving emission projections for the energy sector include population, GDP, ETS carbon price and international fuel prices. In response to a question raised by the ERT during the review, Greece indicated that, in order to ensure consistency, emissions from the IPPU sector were projected on the basis of the

emission projections of the energy sector. The ERT noted the usefulness of the information provided and considers that transparency could be improved if Greece included quantitative information used as a basis for the projection of emissions from the IPPU sector.

50. CTF table 5 does not include the key variables and assumptions for the historical years previous to 2015, while it includes this information for the years 2015, 2020, 2025 and 2030 (see para. 54 below). During the review, Greece provided additional information on historical data for population and GDP. For its next BR submission, the ERT encourages Greece to improve completeness of reporting and provide the historical data used to develop the GHG projections in CTF table 5. This information will facilitate comparison between historical and projected trends for those key variables.

51. The ERT noted that Greece did not report a 'with additional measures' (WAM) or 'without measures' (WOM) scenario in the BR2, whereas it reported a WEM and a WAM scenario in its BR1. The ERT encourages Greece to report a WAM and a WOM scenario, in addition to the WEM scenario, in its next BR submission.

Overview of projection scenarios

52. The WEM scenario reported by Greece includes implemented and adopted PaMs up to the year 2008. The definition indicates that the scenario has been prepared according to the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications".

Methodology and changes since the previous submission

53. The methodology used in the BR2 is identical to that used for the preparation of emission projections for the NC6/BR1. However, Greece has updated the key variables and assumptions when preparing emission projections for its BR2. Such updates include: improvements in inventory reporting; inclusion of emissions for 2012 and 2013, as reported in the 2015 annual emissions inventory submission; use of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*; use of GWP values from the IPCC AR4; and an update on other key assumptions such as population and GDP. The ERT commends Greece for acting on the encouragement contained in the report of the technical review of the BR1 to report this information.

54. To prepare its projections, Greece relied on the following key underlying variables: GDP, gross value added (in the industry, agriculture and services sectors), the EU ETS carbon price, the international coal, oil and gas prices and the number of households. These variables and assumptions are reported in CTF table 5 for the years 2015, 2020, 2025 and 2030. The assumptions have been updated on the basis of the most recent economic developments and forecasts of macroeconomic parameters known at the time of the development of the projections.

55. Sensitivity analyses were conducted for four scenarios with alternative sets of PaMs, RES targets and CO_2 emission targets. The scenarios were named 'SensSc2', 'SensSc3', 'SensSc4' and 'SensSc5', with 'SensSc1' being the reported WEM scenario. The sensitivity was tested only for the energy sector, accounting for more than 80 per cent of the total GHG emissions. The four sensitivity analyses were conducted to analyse the effects of: additional energy efficiency measures (SensSc2); different shares of RES in primary energy use and in electricity generation (SensSc3); and non-binding RES and CO_2 emission targets that either include (SensSc4) or exclude (SensSc5) a new 600 MW capacity lignite-fired plant assumed to be in operation in 2019. The results show that in 2020, compared with the total GHG emissions of the WEM scenario, all sensitivity analysis scenarios have higher levels of total GHG emissions with the exception of SensSc2.

56. The ERT noted that no sensitivity analysis was conducted on key variables and assumptions such as population trends, energy prices or economic development indicators for the WEM scenario. The ERT encourages Greece to report, in its next BR submission, a sensitivity analysis for at least the WEM scenario, conducted for some or all of the key variables and important assumptions used in preparing the projections.

Results of projections

57. Greece's total GHG emissions excluding LULUCF in 2020 and 2030 are projected to be 93,270.62 kt CO_2 eq and 81,655.94 kt CO_2 eq, respectively, under the WEM scenario, which represents a decrease of 11.2 per cent and 22.2 per cent, respectively, below the 1990 level. The 2020 projections suggest that Greece will continue contributing to the achievement of the EU target under the Convention (see para. 13 above).

58. Greece's target for the emissions from sectors covered by the ESD (non-ETS sectors) is to reduce its total emissions by 4 per cent below the 2005 level by 2020 (see para. 16 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 61,242.77 kt CO_2 eq in 2020. According to the projections under the WEM scenario, emissions under the ESD are estimated to reach 47,447 kt CO_2 eq by 2020. The projected level of emissions under the WEM scenario is 22.5 per cent below the AEAs allocated for 2020. The ERT noted that this suggests that Greece expects to meet the target under the WEM scenario. Greece does not have any other national GHG emission reduction target. The ERT commends Greece for taking into account the encouragement contained in the report of the technical review of the BR1 to include information on its AEAs, which facilitates the assessment of the progress made towards its ESD target.

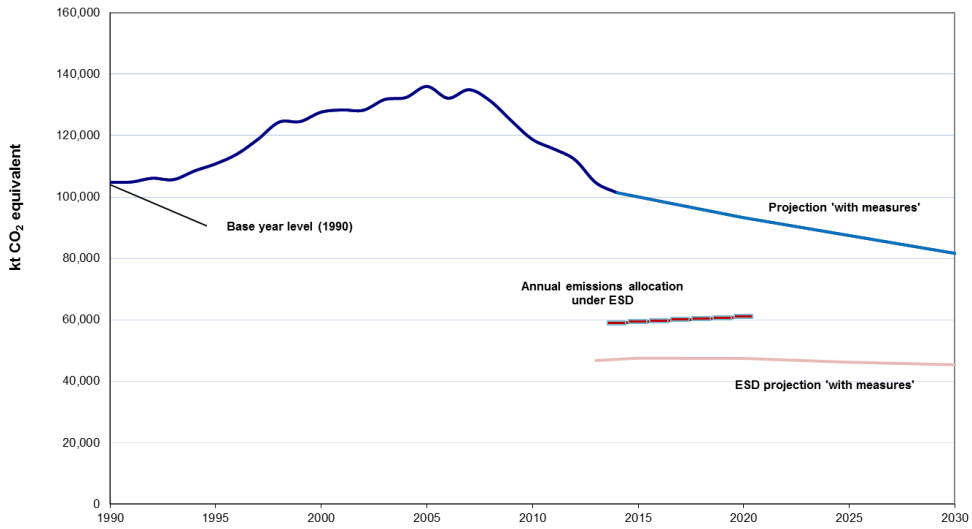
59. According to the projections reported for 2020 under the WEM scenario, the most significant emission reductions are expected to occur in the energy sector (excluding transport), amounting to a projected reduction of 11,700.34 kt CO_2 eq (18.8 per cent) between 1990 and 2020 within the sector. The decrease in emissions, in particular between 2013 and 2020, is mainly attributed to the emission reductions made under the EU ETS sectors. The pattern of projected emissions reported for 2030, under the same scenario, slightly changes owing to a greater contribution of emission reductions from the energy sector (excluding transport), lower growth in emissions from the transportation sector and increasing emissions from the IPPU sector.

60. The ERT noted the slight increase (2.2 per cent) in projected emissions under the EU ETS from 2020 to 2025, followed by a sharp decrease of 22.6 per cent from 2025 to 2030. During the review, Greece clarified that the decrease in emissions from 2025 to 2030 is driven by the energy sector, in particular, by the decrease in emissions from electricity production owing to the replacement of old lignite-fired power plants by natural gas powered plants and RES powered plants.

61. In 2020, the most significant reductions, excluding the LULUCF sector, are projected for the following gases: CO_2, with a reduction of 11,663.59 kt CO_2 eq (14.0 per cent), N_2O, with a reduction of 1,997.33 kt CO_2 eq (27.0 per cent), and CH_4, with a reduction of 1,737.95 kt CO_2 eq (13.4 per cent), between 1990 and 2020.

62. The projected emission levels under the WEM scenario and Greece's quantified economy-wide emission reduction target are presented in the figure below.

Greenhouse gas emission projections by Greece



Sources: (1) Data for the years 1990–2014: Greece's 2016 annual inventory submission, version of 25 April 2016; total GHG emissions excluding land use, land-use change and forestry; (2) Data for the years 2014–2020 and 2030: Greece's second biennial report; total GHG emissions excluding land use, land-use change and forestry.

Abbreviations: ESD = effort-sharing decision, GHG = greenhouse gas.

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

63. In its BR2, Greece reported information on the provision of financial, technological and capacity-building support provided to Parties not included in Annex I to the Convention (non-Annex I Parties) required under the Convention. Greece provided information on financial support in CTF table 7 and defined "new and additional" financial support. The ERT could not identify information showing how technological and capacity-building support to non-Annex I Parties is "new and additional" and recommends that Greece improve completeness of reporting by providing information on how technological and capacity-building support is "new and additional", when this support is reported in its next BR.

64. According to the information reported, financial support is determined as "new and additional" if there are new sources or amounts of funding since the NC6/BR1 reporting period targeting climate change supporting activities. Tables 7 for 2013 and 2014 identify amounts provided through multilateral channels as general/core contributions, not as climate specific. It is not clear how the support provided by Greece through multilateral institutions in 2013–2014 is considered as "new and additional" according to the definition provided above, namely, how this support is targeted at climate-specific activities. The ERT recommends that Greece enhance the transparency of its reporting by clarifying in its next BR submission how the financial support provided is determined as "new and additional", namely, how this support is targeted at climate-specific activities.

65. Greece reported in CTF tables 7(a) and 7(b) the financial support distinguished between support for mitigation and adaptation activities for 2013 and 2014.

66. The BR2 includes succinct information on the national approach to tracking the provision of support and allocation channels by referring to the Hellenic Aid programme.

Through this programme Greece coordinates programming, allocation and monitoring of development cooperation, multilateral and bilateral funding. The Ministry of Economy and the Ministry of Environment and Energy are coordinating institutions for Greece's provision of support to developing country Parties. The ERT noted that transparency of the reporting on the national approach for tracking of the provision of financial, technological and capacity-building support to non-Annex I Parties could benefit from further details of the operation of the Hellenic Aid programme. The ERT recommends that Greece enhance the transparency of its reporting by including more detailed information on its national approach for tracking of the provision of financial, technological and capacity-building support to non-Annex I Parties, if appropriate, in its next BR submission.

67. In providing information related to the national approach for tracking of provision of financial, technological and capacity-building support, the BR2 of Greece does not include information on the indicators and delivery mechanisms used. In response to the question raised by the ERT during the review, Greece noted that indicators and delivery mechanisms are covered by the tracking, measuring and recording system of the assistance provided to the developing countries under the Hellenic Aid programme. The ERT recommends that Greece improve the transparency of its reporting by providing information on the indicators and delivery mechanisms used in tracking the support provided to non-Annex I Parties in the next BR submission.

68. For the reporting of information in accordance with paragraphs 17 and 18 of the UNFCCC reporting guidelines on BRs, the BR2 of Greece does not describe the methodology used. The ERT recommends that Greece improve the completeness of its reporting by describing the methodology used in future BR submissions.

69. The ERT could not identify the reporting of underlying assumptions used to produce information on finance. In response to the question raised by the ERT during the review, Greece noted that it has used the tracking, measuring and recording system of the assistance provided to the developing countries under the Hellenic Aid programme. The ERT recommends that Greece improve the completeness of its reporting by describing in a rigorous, robust and transparent manner the underlying assumptions used to produce information on finance in the next BR submission.

1. Finance

70. In its BR2, Greece reported information on the provision of financial support required under the Convention, including on financial support provided, allocation channels and annual contributions, by referring to the information provided in CTF tables 7, 7(a) and 7(b). The information provided in CTF tables 7, 7(a) and 7(b) was reported for 2013 and 2014.

71. In providing the information on financial support provided for the years 2013 and 2014, Greece did not describe in its BR2 how it seeks to ensure that the resources it provided effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation. In response to the question raised by the ERT during the review, Greece referred to its Hellenic Aid programme, which coordinates the programming, allocation and monitoring of development cooperation, including the provision of multilateral and bilateral support. The ERT recommends that Greece enhance the completeness of its reporting by describing, to the extent possible, how it seeks to ensure that the resources provided effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation, in its next BR submission.

72. The ERT noted that Greece did not provide summary information on allocation channels and annual contributions for 2013 and 2014, in textual format, in its BR2. The ERT also noted that, although Greece reported its contributions through multilateral

channels as 'core/general' (non-climate-specific channels), it indicated in CTF table 7(a) that the support was attributed to mitigation, adaptation and cross-cutting activities, which seems inconsistent. In 2013 the core/general amounts reported as attributed to cross-cutting and adaptation activities were USD 0.26 million and USD 0.93 million, respectively, and in 2014 the amounts for mitigation and adaptation activities were less than in 2013, namely, USD 0.05 million and USD 0.62 million, respectively. The ERT recommends that Greece enhance the completeness of its reporting in its next BR submission by providing the summary information, in textual format, on allocation channels following the provisions of paragraph 17 of the UNFCCC reporting guidelines on BRs.

73. The ERT noted that Greece did not provide summary information in textual format on annual financial support in its BR2. In its CTF tables 7, 7(a) and 7(b), Greece did not report the amount of financial resources in equivalent USD. During the review, Greece stated that it considers the reporting of financial support in USD as non-mandatory. Nevertheless, Greece provided the exchange rates for 2013 and 2014 as 1.3281 USD/EUR and 1.3285 USD/EUR, respectively. To improve completeness, the ERT recommends that Greece provide the summary information, in textual format, on annual financial support provided following the provisions of paragraph 18 of the UNFCCC reporting guidelines on BRs and include the amount of financial resources in USD along with the original currency. Transparency of reporting will benefit from an indication as to whether the funds provided through multilateral channels are climate-specific.

74. In its BR2, Greece stated that it does not have a system to track private financial flows. The ERT reiterates the encouragement contained in the report of the technical review of the BR1 for Greece to improve the transparency of its reporting by including in its next BR submission, to the extent possible, the information on private financial flows leveraged by bilateral climate finance towards mitigation and adaptation activities in non-Annex I Parties.

75. The BR2 does not include PaMs to promote and scale up private investment in mitigation and adaptation activities in developing countries. To further enhance transparency, the ERT encourages Greece to include information in its next BR submission on PaMs that promote and scale up private investment in mitigation and adaptation activities in developing countries.

76. Greece reported on its climate-specific public financial support provided in 2013 totalling USD 0.04 million through bilateral and regional channels. The ERT noted that climate-specific support in 2014 was not provided through these channels. The majority of Greece's support is not climate-specific but rather core/general financial support. As indicated in CTF tables 7 and 7(a), in 2013 and 2014, the core/general financial support provided through multilateral funds amounted to USD 1.19 million and USD 0.67 million, respectively. The ERT noted that there was less support through these channels, in both amounts and numbers of recipients, in the BR2 compared with the BR1, mostly owing to the economic crisis that Greece faced during these years. Table 5 includes some of the information reported by Greece on its provision of financial support.

Table 5
Summary of information on provision of financial support in 2013–2014 by Greece
(Millions of United States dollars)

	Years of disbursement	
Allocation channel of public financial support	*2013*	*2014*
Official development assistance[a]	291.36	247.44
Climate-specific contributions through bilateral, regional	0.04	–

	Years of disbursement	
Allocation channel of public financial support	*2013*	*2014*
and other channels		

[a] Source: Query Wizard for International Development Statistics, available at <http://stats.oecd.org/qwids/>.

77. The BR2 provides information on the types of support provided. In terms of the focus of public financial support, as reported in CTF table 7 for 2013, 100 per cent of the climate-specific public financial support was allocated to adaptation through bilateral, regional and other channels, corresponding to USD 0.04 million.

78. CTF tables 7(a) and 7(b) include information on the types of financial instrument used in the provision of assistance to developing countries. All of the public financial support provided in 2013 and 2014 was in the form of grants.

2. Technology development and transfer

79. In its BR2, Greece reported that no technology development and transfer support was provided in 2013 and 2014 and hence no information was included in CTF table 8. In response to a question raised by the ERT during the review, Greece clarified that owing to its economic crisis, technology transfer and development support was not provided.

80. The BR2 does not provide information on measures taken to promote, facilitate and finance the transfer of, access to and deployment of climate-friendly technologies for the benefit of non-Annex I Parties and for support of the development and enhancement of endogenous capacities and technologies of non-Annex I Parties. During the review, Greece elaborated on such measures by referring to its Law 4369.[4] According to the provisions of its Article 50, part of the funds from auctions of undistributed GHG emission allowances from the EU ETS will be allocated to assistance for developing countries to reduce their GHG emissions and to adapt to climate change. For Greece, the adoption of this law has allowed for the planning of measures and activities related to future technology transfer.

81. To improve completeness, the ERT recommends that Greece, in its next BR submission, fulfil all the technology development and transfer reporting requirements pursuant to paragraphs 21 and 22 of the UNFCCC reporting guidelines on BRs in the next BR submission, including providing information on technological support to non-Annex I Parties when such support is provided.

3. Capacity-building

82. In its BR2, Greece supplied information on how it provided capacity-building support by referring to CTF table 9, in which it reported on three programmes for provision of capacity-building support: (1) the Mediterranean component of the EU initiative Water for Life; (2) the ENPI Horizon 2020 Capacity Building/Mediterranean Environment Programme; [5] and (3) the Mediterranean Educational Initiative for Environment and Sustainability. The latter two programmes offered capacity-building in multiple areas. In response to a question raised by the ERT during the review, Greece further clarified that the programmes address the emerging capacity-building needs of the recipient countries in the

[4] Law 4369 (O.G. A33/27-2-2016) on a national registry of executive managers of public administration, grading structure of work positions, personnel assessment systems, promotion and selection of heads of departments (transparency, meritocracy and efficiency of public administration) and other provisions.

[5] Further details available at <http://www.h2020.net/capacity-building/the-project-enpi-cb-mep.html>.

areas of adaptation (more specifically, assistance for water planning activities) and education. The ERT recommends that Greece improve the transparency of its reporting by including, to the extent possible, in its next BR submission, further information on how it provides capacity-building support that responds to the existing and emerging capacity-building needs of non-Annex I Parties.

83. The ERT noted that a description of capacity-building measures and activities was not reported in textual format in the BR2. The ERT encourages Greece to describe individual measures and activities in textual format in the next BR.

III. Conclusions

84. The ERT conducted a technical review of the information reported in the BR2 and CTF tables of Greece in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the reported information is mostly in adherence with the UNFCCC reporting guidelines on BRs and provides an overview on: 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; progress made by Greece in achieving its target; and the Party's provision of support to developing country Parties.

85. Greece's total GHG emissions excluding LULUCF related to its quantified economy-wide emission reduction target were estimated to be 3.3 per cent below its 1990 level, whereas total GHG emissions including LULUCF were 4.3 per cent below its 1990 level in 2014. The decrease in emissions was driven by the energy sector, in particular, energy industries and transport.

86. Under the Convention, Greece is committed to contributing to the achievement of the joint EU quantified economy-wide target of a 20 per cent reduction in emissions below the 1990 level by 2020. The target covers all sectors and the gases CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, expressed using GWP values from the IPCC AR4. 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 as well as new market mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. Companies can make use of such units to fulfil their requirements under the EU ETS.

87. Under the ESD, Greece has a target to reduce its emissions by 4 per cent below the 2005 level by 2020. Greece's AEAs, which correspond to its national emission target under the ESD, change linearly from 58,955.025 kt CO_2 eq in 2013 to 61,242.766 kt CO_2 eq in 2020.

88. Greece's main policy framework relating to energy and climate change is the Second National Climate Change Programme. The mitigation PaMs with the most significant mitigation impacts are the "Promotion of RES for electricity generation" and "Improvements in the conventional power generation system", including "Promotion of natural gas".

89. For 2013, Greece reported in CTF table 4 total GHG emissions excluding LULUCF at 105,110.51 kt CO_2 eq. Greece indicated that it will not use any international units for 2013 and 2014 in relation to its ESD target and that the use of international credits by installations under the EU ETS is allowed under certain restrictions.

90. The ERT noted that Greece is making progress towards and expects to meet its emission reduction target under the ESD.

91. The GHG emission projections provided by Greece in its BR2 include those for the WEM scenario. Under this scenario, emissions are projected to be 11.2 per cent below the 1990 level in 2020. On the basis of the results of the projections for 2020 under the WEM scenario, the ERT noted that Greece will continue contributing to the achievement of the EU target under the Convention.

92. In 2013, Greece allocated climate financing in order to assist developing country Parties to implement the Convention. According to the information reported, in 2013 Greece allocated USD 0.04 million as climate-specific contributions through bilateral, regional and other channels for adaptation. In 2014, it reduced the level of its financial support, and none of the support was climate specific.

93. As a Party included in Annex II to the Convention, Greece is obliged to provide technological support to non-Annex I Parties. However, Greece did not provide support on technology development and transfer to non-Annex I Parties.

94. 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:[6]

(a) Improve the completeness of its reporting by:

(i) Providing information on how technological and capacity-building support to non-Annex I Parties is "new and additional" (see para. 63 above);

(ii) Describing the methodology used for reporting information (see para. 68 above);

(iii) Reporting in a rigorous, robust and transparent manner the underlying assumptions used to produce information on finance (see para. 69 above);

(iv) Describing, to the extent possible, how it seeks to ensure that the resources it provided effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation (see para. 71 above);

(v) Providing information, in textual format, on allocation channels and annual contributions (see para. 72 above);

(vi) Including the summary information, in textual format, on annual financial support provided and the amount of financial resources in USD (see para. 73 above);

(vii) Providing information on measures taken to promote, facilitate and finance the transfer of climate-friendly technologies for the benefit of non-Annex I Parties (see para. 81 above);

(viii) Providing, in textual and tabular format, information on measures and activities related to technology transfer implemented or planned since its last national communication or BR (see para. 81 above);

(ix) Providing, to the extent possible, information on the recipient country, the target area of mitigation or adaptation, the sector involved and the sources of technology transfer from the public or private sectors (see para. 81 above);

(x) Distinguishing between technology transfer activities that undertaken by the public and private sectors (see para. 81 above);

(b) Improve the transparency of its reporting by:

[6] The recommendations are given in full in the relevant chapters of this report.

(i) Elaborating on the rationale for the changes of the reported impacts of policies and measures that had changes made since the previous BR submission and by clarifying any changes in the names and starting years of implementation (see para. 42 above);

(ii) Clarifying how the financial support provided is determined as "new and additional" (see para. 64 above);

(iii) Including further information on its national approach for tracking of the provision of financial, technological and capacity-building support to non-Annex I Parties, if appropriate (see para. 66 above);

(iv) Providing information on indicators and delivery mechanisms used in tracking support to non-Annex I Parties (see para. 67 above);

(v) Providing, to the extent possible, information on how it provides capacity-building support that responds to the existing and emerging capacity-building needs identified by non-Annex I Parties in the areas of mitigation, adaptation, and technology development and transfer (see para. 82 above).

Annex

Documents and information used during the review

A. Reference documents

"UNFCCC biennial reporting guidelines for developed country Parties". Annex I to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#page=4>.

"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#page=2>.

"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>.

FCCC/ARR/2014/GRC. Report on the individual review of the annual submission of Greece submitted in 2014. Available at <http://unfccc.int/resource/docs/2015/arr/grc.pdf>.

FCCC/IDR.6/GRC. Report of the technical review of the sixth national communication of Greece. Available at <http://unfccc.int/resource/docs/2015/idr/grc06.pdf>.

FCCC/TRR.1/GRC. Report of the technical review of the first biennial report of Greece. Available at <http://unfccc.int/resource/docs/2015/trr/grc01.pdf>.

2015 greenhouse gas inventory submission of Greece. Available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8812.php>.

2016 greenhouse gas inventory submission of Greece. Available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/9492.php>.

Sixth national communication of Greece. Available at <http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/7742.php>.

First biennial report of Greece. Available at <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/nc6_greece[1].pdf>.

Common tabular format tables of the first biennial report of Greece. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/international_assessment_and_review/application/pdf/grc_2014_v2.0_formatted.pdf>.

Second biennial report of Greece. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/br2_greece_2016_textual_part.pdf>.

Common tabular format tables of the second biennial report of Greece. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/grc_ctf-2016_v1.0_formatted.pdf>.

B. Additional information used during the review

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

European Environment Agency (EEA). 2015. *GR Projections 2015, Greenhouse Gas Monitoring Mechanism*. Available at <http://cdr.eionet.europa.eu/gr/eu/mmr/art04-13-14_lcds_pams_projections/envvgpzcg/>.

European Environment Agency (EEA). EEA Report No 4/2015. *Trends and projections in Europe 2015; tracking progress towards Europe's climate and energy targets*. Available at <http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2015>.

[1] Reproduced as received from the Party.