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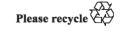
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# Report of the technical review of the first biennial report of Spain

Developed country Parties are requested, in accordance with decision 2/CP.17, to submit their first biennial report to the secretariat by 1 January 2014. This report presents the results of the technical review of the first biennial report of Spain 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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### FCCC/TRR.1/ESP

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## I. Introduction and summary

#### A. Introduction

- 1. For Spain, the Convention entered into force on 21 March 1994. Under the Convention, Spain made a commitment to contribute to the joint European Union (EU) economy-wide emission reduction target of reducing its greenhouse gas (GHG) emissions by 20 per cent by 2020 below 1990 level. This arrangement establishes for the EU as a whole a commitment to reduce its GHG emissions by 21 per cent by 2020 below the 2005 level for the emission sources under the European Union Emissions Trading System (EU ETS) and by 10 per cent by 2020 below the 2005 level for the remaining sources of the economy (sectors not covered by the EU ETS (non-EU ETS sectors)).
- 2. This report covers the in-country technical review of the first biennial report (BR1)<sup>1</sup> of Spain, coordinated 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" (decision 23/CP.19).
- 3. The review took place from 5 to 10 May 2014 in Madrid, Spain, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Mr. Emilio Garcia Apaza (Plurinational State of Bolivia), Mr. Luis Cáceres Silva (Ecuador), Mr. Julien Matheys (Belgium) and Ms. Sina Wartmann (Germany). Mr. Cáceres Silva and Ms. Wartmann were the lead reviewers. The review was coordinated by Mr. Javier Hanna (secretariat).
- 4. During the review, the expert review team (ERT) reviewed each section of the BR1.
- 5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of Spain, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

#### B. Summary

- 6. The ERT conducted a technical review of the information reported in the BR1 of Spain according to the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs).
- 7. During the review, Spain provided further relevant information, including details of approaches used in developing projections, details of new policies and measures (PaMs) planned and details of financial support provided.

#### 1. Completeness and transparency of reporting

8. Gaps and issues related to the reported information identified by the ERT are presented in table 1 below.

<sup>&</sup>lt;sup>1</sup> The biennial report submission comprises the text of the report and the common tabular format (CTF) tables. Both the text and the CTF tables have been subject to the technical review.

#### 2. Timeliness

9. The BR1 was submitted on 19 December 2013, before the deadline of 1 January 2014 mandated by decision 2/CP.17. The common tabular format (CTF) tables were submitted on 19 December 2013.

#### 3. Adherence to the reporting guidelines

10. The information reported by Spain in its BR1 is mostly in adherence to the UNFCCC reporting guidelines on BRs as per decision 2/CP.17 (see table 1).

Table 1 Summary of completeness and transparency issues of reported information in the first biennial report of Spain<sup>a</sup>

| Sections of the biennial report  | Completeness       | Transparency          | Reference to<br>paragraphs |
|--|--------------------|-----------------------|----------------------------|
| Greenhouse gas emissions and trends  | Complete           | Transparent           |                            |
| Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target | Complete           | Mostly transparent    | 16                         |
| Progress in achievement of targets   | Mostly complete    | Transparent           | 27, 29, 30                 |
| Projections  | Complete           | Transparent           |                            |
| Provision of support to developing country Parties   | Partially complete | Partially transparent | 1–44, 50, 51, 54           |

<sup>&</sup>lt;sup>a</sup> A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in chapter III below on the conclusions.

## II. Technical review of the reported information

11. Spain provided the BR1 as a separate document from its sixth national communication (NC6). As there is considerable overlap in the information to be provided in the two documents, Spain chose to produce a concise BR1, referring to the information included in the NC6 for most cases. The ERT noted that as the second biennial report (BR2) will not be submitted along with a national communication (NC), more detailed and comprehensive contents will have to be provided in the BR2 to ensure its completeness and transparency.

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

- 12. Spain has provided a summary of information on GHG emission trends for the period 1990–2011 in its BR1 and CTF table 1. This information is consistent with the 2013 national GHG inventory submission. Summary tables, including trend tables for emissions in carbon dioxide equivalent ( $CO_2$  eq) are provided in an annex to the BR1.
- 13. Total GHG emissions<sup>2</sup> excluding emissions and removals from land use, land-use change and forestry (LULUCF) increased by 23.9 per cent between 1990 and 2011, whereas total GHG emissions including net emissions or removals from LULUCF

<sup>&</sup>lt;sup>2</sup> In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of CO<sub>2</sub> eq excluding land use, land-use change and forestry, unless otherwise specified.

increased by 21.9 per cent over the same period. The total GHG emissions increased by 54 per cent between 1990 and 2005, driven mainly by expansion of the energy and manufacturing industries and a strong increase in road transportation. They stabilized between 2005 and 2007, after which they sharply decreased until 2010 (by 18 per cent) owing to the financial and economic crisis, which hit Spain in 2008. Between 2010 and 2011, a slight increase in total GHG emissions of approximately 0.5 per cent occurred. Further information on the review of emissions and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication of Spain (IDR/NC6).

14. During the review, Spain provided additional information, elaborating on the 2014 annual GHG inventory submission data, including key data for 2012.

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

- In its BR1 and CTF tables 2, Spain reported a description of its target, including associated conditions and assumptions. Spain does not have a country-specific target as it participates in meeting the EU quantified economy-wide target of a 20 per cent reduction in emissions by 2020 below the 1990 (base year) level. The EU target is divided into two: for EU ETS and non-EU ETS covered sectors. The target for sectors covered by the EU ETS is 21 per cent below the 2005 level by 2020, with no country-specific targets assigned. The target for non-EU ETS sectors is 10 per cent below the 2005 level by 2020, with countryspecific targets assigned. Under the EU effort-sharing decision (ESD) (decision 406/2009/EC) the target for Spain for non-EU ETS sectors is 10 per cent below the 2005 level by 2020. This economy-wide target for the EU and its member States is based on the EU Climate and Energy Package, which regulates emissions from the following GHGs: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF<sub>6</sub>), which are aggregated using global warming potential (GWP) values from the Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Net emissions and removals from the LULUCF sector are excluded from the base year and the target. International aviation in the scope of the EU ETS is covered. Market-based mechanisms can be used for acquiring certified emission reductions, emission reduction units and assigned amount units (AAUs) within the EU. Surplus AAUs carried over from the first commitment period of the Kyoto Protocol will not be used.
- 16. The ERT noted that the CTF tables 2 contain some inconsistencies concerning the assumptions, conditions and methodologies related to the description of the target with the information mentioned in paragraph 15 above on the EU target. These inconsistencies relate to the inclusion of nitrogen trifluoride (NF<sub>3</sub>) with a base year 1995/2000, the use of GWP values from the Fourth Assessment Report of the IPCC, and the information on the inclusion of the LULUCF sector in one table but the exclusion of emissions/removals from this sector from the base year and the target in another table. The ERT recommends that Spain clarify and correct, when necessary, the above-mentioned elements of the definition and description of the target in its next biennial report (BR).
- 17. During the review, Spain provided additional information, elaborating on the assumptions made and on the models used to develop projections. In particular, it provided references to existing public documents, such as the Spanish communication of March 2013 to the European Commission according Article 3.2(b) of decision 280/2004/CE, which increased the understanding of the approach followed by the Party. The ERT encourages Spain to include the additional information provided and make clear references to the source documents in its next BR.

### C. Progress made towards the achievement of the quantified economywide emission reduction target

- 18. In its BR1 and CTF tables 3 and 4, Spain reported information on its mitigation actions implemented and planned since its fifth national communication (NC5) to achieve its target. Spain also reported on the use of units from market-based mechanisms and LULUCF to achieve its target. The ERT noted the efforts made by Spain to develop and implement its climate mitigation PaMs, which address all relevant sectors and GHGs.
- 19. The ERT noted the progress made by Spain to achieve its commitment to limit its GHG emissions for the first commitment period (2008–2012) of the Kyoto Protocol (15 per cent above the base year level) because of its wide implications to the progress made towards the achievement of the quantified economy-wide emission reduction target under the Convention. In Spain's 2014 GHG annual inventory submission the reported total GHG emissions for 2008–2012 are 1,791,980 kt CO<sub>2</sub> eq, while its assigned amount is 1,666,196 kt CO<sub>2</sub> eq, with a gap of 125,784 kt CO<sub>2</sub> eq. The average total GHG emissions for 2008–2012 (358,396 kt CO<sub>2</sub> eq) is 23.7 per cent above the base year level. Thus, Spain's GHG emissions are expected to be higher than its Kyoto Protocol target for the first commitment period, although its GHG emissions have decreased sharply since 2008. Therefore, Spain intends to supplement its domestic actions with the use of Kyoto Protocol mechanisms and the accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol to close the gap between its Kyoto Protocol target and its GHG emissions in the period 2008–2012.
- 20. For the second commitment period (2013–2020) of the Kyoto Protocol, Spain committed to reduce its GHG emissions by 20 per cent below the base year level; however, similarly to the other EU member States, Spain will fulfil jointly the EU commitment for the second commitment period to reduce its GHG emissions by 20 per cent below the base year level in accordance with Article 4 of the Kyoto Protocol.<sup>3</sup> Correspondingly, under the Convention, Spain made a commitment to contribute to the joint EU economy-wide emission reduction target of reducing its GHG emissions by 20 per cent by 2020 below the 1990 level. Spain's commitment consequently can be divided into: (1) a target for its emissions falling under the EU ETS (directive 2003/87/CE), with a target of a 21 per cent reduction in emissions for the covered sectors for the EU as a whole, and for which no country-specific target for the member States is defined; and (2) a target for its emissions falling under the EU ESD for sectors not covered by the EU ETS, with a target of a 10 per cent reduction by 2020 compared with the 2005 level.
- 21. The ERT reviewed the reported information and provided its assessment of progress made towards achieving the target. The ERT noted that none of the projections under the three projection scenarios reported in the BR1 indicates that Spain could reach the target described under the ESD (10 per cent below the 2005 level by 2020). Therefore, Spain intends to increase its domestic action. The most important measure in this regard is the Spanish 2020 Diffuse Sectors Road Map, which addresses emissions under the ESD. This road map should enable Spain to close an estimated 19,900 kt CO<sub>2</sub> eq emissions gap by 2020 (or an overall emissions gap of 54,500 kt CO<sub>2</sub> eq over the entire period 2013–2020) and to comply with its ESD targets at the EU level. If the effect of these additional measures proves insufficient to reach this target, Spain plans to use Kyoto Protocol

The quantified emission limitation or reduction commitments (QELRCs) for the EU and its member States for the second commitment period under the Kyoto Protocol are based on the understanding that these will be fulfilled jointly with the EU and its member States, in accordance with Article 4 of the Kyoto Protocol. The QELRCs are without prejudice to the subsequent notification by the EU and its member States of an agreement to fulfill their commitments jointly in accordance with the provisions of the Kyoto Protocol.

mechanisms to acquire credits through its participation in carbon finance instruments targeting the post-2012 period.

- 22. The ERT noted the progress made by Spain and that it had significantly reduced the distance to the 2020 target in recent years. As some indication of the progress, Spain's GHG emissions for 2011 were estimated to be 23.9 per cent above its 1990 level excluding LULUCF and 21.9 per cent above including LULUCF. The ERT also noted that the increase in GHG emissions between 1990 and 2007 was driven by strong economic and demographic growth, while the financial and economic crisis was one of the important factors inducing a decrease in emissions since 2008 which continued to 2012. The carbon intensity of the Spanish economy also decreased from around EUR 0.46 million per kt CO<sub>2</sub> eq in 2002 to EUR 0.30 million per kt CO<sub>2</sub> in 2012. The ERT considers that a longer period of economic recovery will be necessary to enable a more thorough assessment of the relative contributions of mitigation measures, including the planned intensification of its domestic action, and of the economic crisis in the evolution of the carbon intensity and overall GHG emissions in Spain.
- 23. The ERT noted that the BR1 does not include specific information required by the UNFCCC reporting guidelines on BRs on projected emissions from international shipping. As these emission projections were not reported, the ERT encourages Spain to develop and report emission projections for international shipping in its BR2 and, to the extent possible, report them separately from the national totals.
- 24. During the review, Spain provided additional and detailed information, elaborating on the drivers behind the evolution of the different types of emissions and of the different sectors. Information was provided on, inter alia, the evolution of the energy mix, the building stock, and the vehicle fleet between 1990 and 2011. This allowed for a complete and transparent review of the historical emission levels.
- 25. In order to increase transparency, the ERT encourages Spain to provide this detailed information in its next BR and clearly refer to the extensive and detailed information on projections provided in other public documents such as the Spanish communication of March 2013 to the European Commission according to Article 3.2(b) of decision 280/2004/CE.

#### 1. Mitigation actions and their effects

- 26. Spain has provided in its BR1 and CTF table 3 well-organized information on its package of mitigation actions introduced to achieve its target. The BR1 provided information on mitigation actions organized by sector and by gas. The ERT noted that information on PaMs is partly provided through reference to the NC6. A detailed review of the reported information is provided in chapter II.B of the IDR/NC6.
- 27. The ERT noted that CTF table 3, listing the most relevant PaMs, is generally in line with the information provided in the NC6. For a number of implemented PaMs, no starting dates are listed in the table. Spain provided the missing information during the review and explained that the omissions represent an error in the table. The ERT recommends that Spain provide complete information on PaMs in CTF table 3 in its next BR.
- 28. As the next BR will not be published along with an NC to refer to, the ERT encourages Spain to provide more complete information on PaMs within its next BR to ensure that it can function as a stand-alone document with full consistency with the CTF tables.
- 29. The ERT noted that the information in the NC6 referenced in the BR does not include a description of how Spain is monitoring and evaluating the progress of PaMs to mitigate GHG emissions over time.

- 30. During the review, Spain explained that a monitoring and evaluation process, including a technical and political review of the individual policies, takes place every two years. The process is driven by the Spanish Climate Change Office and involves ministries, autonomous communities, technical experts, policymakers, the private sector and trade unions. The process takes place under the EU monitoring and reporting regulation (regulation 525/2013/CE), under which reports that include the evaluation of PaMs are provided to the European Commission. These reports are publicly available. The ERT recommends that Spain include this information on the evaluation process and its results in its next BR, either through direct inclusion of the information in the BR or through precise references.
- 31. The ERT noted that the key instrument for climate change mitigation in Spain is the Climate Change and Clean Energy Strategy 2007–2012–2020, laying down the principles under which mitigation is to be achieved. For the most part, climate change policies in Spain are defined by the EU Climate and Energy Package. As a member State of the EU, Spain is obliged to implement EU policy and legislation, including in the areas of energy and environment. The EU Climate and Energy Package sets emission reduction targets for 2020, including targets for the non-EU ETS sectors of the member States. The EU Climate and Energy Package is linked to: (1) the EU directive on the promotion of the use of energy from renewable sources (directive 2009/28/EC), which sets for Spain a target of a 20 per cent share of energy from renewable energy sources in gross final energy consumption by 2020; (2) the EU-wide reduction of primary energy use by 20 per cent compared with projected levels, which is to be achieved through energy efficiency improvements; and (3) the third trading period of the EU ETS (2013–2020), which establishes a single EU-wide cap on emission allowances, reducing the number of allowances to 21 per cent below the 2005 level in 2020. As indicated above, at the highest policy level, implementation of these requirements is addressed through the Climate Change and Clean Energy Strategy 2007-2012-2020. At the sectoral level, measures are translated into sectoral plans, such as the Waste Management Plan 2012-2020. The ERT noted the information provided during the review that plans are updated periodically as necessary.
- 32. Despite a considerable decrease in national GHG emissions during the economic crisis in 2008–2009, reported projections show a gap of 54,500 kt  $\rm CO_2$  eq to the effortsharing target in the non-EU ETS sectors for 2020. Spain has therefore developed the 2020 Diffuse Sectors Road Map with 43 reduction measures for all non-EU ETS sectors, which will deliver a total of around 56,000 kt  $\rm CO_2$  eq of reductions between 2013 and 2020 compared with the 'with measures' scenario for the same time frame. Annual reductions compared with the 'with measures' scenario amount to 16,000 kt  $\rm CO_2$  eq in 2021–2023, slowly decreasing to 8,000 kt  $\rm CO_2$  eq annually by 2030. During the review, Spain informed the ERT that a comprehensive cost–benefit assessment has been carried out for all measures.
- 33. Table 2 provides a concise summary of the key mitigation actions implemented by Spain to achieve its target.

Table 2
Summary of information on mitigation actions reported by Spain

| Sectors affected     | List of key mitigation actions                      | Estimate of mitigation impact (kt CO <sub>2</sub> eq) |
|----------------------|---|---|
| Policy framework and | cross-sectoral measures                             |   |
|                      | European Union Emissions Trading System (2013–2020) | 28 000  |

<sup>4 &</sup>lt;a href="http://cdr.eionet.europa.eu/es/eu/ghgpro/envuumnwq">http://cdr.eionet.europa.eu/es/eu/ghgpro/envuumnwq</a>.

| Sectors affected                   | List of key mitigation actions  | Estimate of mitigation impact (kt CO2 eq) |
|------------------------------------|---|---|
|                                    | 2020 Diffuse Sectors Road Map   | 56 000                                    |
|                                    | 2020 Diffuse Sectors Road Map   | 30 000                                    |
| Energy                             |   |   |
| Energy supply                      | Gas and Electricity Plan 2008–2016  | 28 000 (during 2008–<br>2012)             |
| Renewable energy                   | Renewable Energy Action Plan 2005–2010  | NE  |
| Energy efficiency                  | Energy Efficiency Action Plan 2008–2012   |   |
|                                    | Energy Efficiency Action Plan 2011–2020   | 35 000                                    |
|                                    | Energy Efficiency Action Plan 2014–2020 (under development)   | 28 600                                    |
| Residential and commercial sectors | National plan for dwellings and rehabilitation<br>and national plan for the promotion of renting<br>and urban refurbishment, regeneration and<br>renovation (2013–2016) | IE  |
|                                    | Law 8/2013 on urban refurbishment, regeneration and renovation  |   |
|                                    | Technical Building Code   |   |
|                                    | Certification of new and existing buildings   |   |
| Transport                          | Sustainable Mobility Plan   | IE  |
|                                    | Strategic Plan for Transport and Infrastructure   |   |
|                                    | PIVE-Programmes   |   |
|                                    | PIMA-Programmes   |   |
| Industrial sectors                 | European Union directive on integrated pollution prevention and control   |   |
|                                    | European Union regulation on certain fluorinated greenhouse gases (regulation 842/2006/EC)  |   |
|                                    | Tax on fluorinated greenhouse gases   | IE  |
| Agriculture                        | Common Agricultural Policy  |   |
|                                    | Fertilizer Use Plan   | IE  |
| Forestry                           | Common Agricultural Policy  |   |
| •                                  | Spanish Forestry Plan 2002–2032   | IE  |
| Waste management                   | National Integrated Waste Management Plan<br>2008–2015  |   |
|                                    | State Programme for Waste Reduction 2014–2020   | IE  |

*Note*: The greenhouse gas reduction estimates given for some measures are reductions in carbon dioxide or carbon dioxide equivalent for 2020.

*Abbreviations*: IE = included elsewhere, NE = not estimated, PIMA = Plan de Impulso al Medio Ambiente, PIVE = Programa de Incentivos al Vehículo Eficiente.

34. In its BR1, through a reference to its NC6, Spain provided information on changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, reporting and archiving of information on the progress towards its target. The main change relates to the institutional attributions and renaming of the previous Ministry of Environment and Rural and Marine Environment, now called the Ministry of Agriculture, Food and the Environment. Furthermore, the Spanish national registry, both under the Kyoto Protocol and the EU ETS, became part of the Consolidated System of European Union registries.

35. Spain did not provide information on the assessment of the economic and social consequences of response measures. During the review, Spain explained that this information is currently being prepared, but had not been developed to a suitable level of detail for inclusion in the NC6 and BR1. The ERT encourages Spain to conclude working on the assessment of the economic and social consequences of the response measures and include this information in its next BR.

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

- 36. Estimates of emission reductions and removals from LULUCF were provided in the BR1. Spain reported on the contribution from LULUCF to achieve its target in its BR1 and CTF tables 4. During the review, Spain provided clarifying information to the ERT on this issue.
- 37. Spain did not report in its BR1 and CTF tables 4 on its plans to use market-based mechanisms under the Convention and other mechanisms. During the review, Spain provided clarifying information to the ERT on this issue. Table 3 illustrates how Spain reported on the use of units from market-based mechanisms and LULUCF to achieve its target for the first commitment period of the Kyoto Protocol.

Table 3 Summary information on the use of units from the market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made towards achievement of the target by Spain

| Year              | Emissions excluding<br>LULUCF<br>(kt CO2 eq) | LULUCF<br>emissions/removals<br>(kt CO <sub>2</sub> eq) <sup>t</sup> | Emissions including<br>LULUCF<br>(kt CO <sub>2</sub> eq) | Use of units from the market-based mechanisms (kt CO2 eq) <sup>c</sup> |
|-------------------|--|--|--|--|
| 1990 <sup>a</sup> | 283 749.22                                   | NA   | NA   | NA   |
| 2010              | 347 181.00                                   | NA   | NA   | 57 955   |
| 2011              | 345 887.15                                   | NA   | NA   | 57 955   |
| 2012              | 340 808.59                                   | NA   | NA   | 57 955   |

Abbreviations: LULUCF = land use, land-use change and forestry, NA = not applicable.

#### 3. Projections

38. Spain has provided in its BR1 and CTF tables 5 and 6 comprehensive and well-organized information on its updated projections for 2020 and 2030. A detailed review of the reported information is provided in chapter II.C of the IDR/NC6.

<sup>&</sup>lt;sup>a</sup> Emissions and removals for 1990 shall be reported, if a base year other than 1990 is used.

<sup>&</sup>lt;sup>b</sup> Spain, in common tabular format table 4, reported a contribution from the LULUCF sector of 11,351.44 kt CO<sub>2</sub> eq in 2010 and 11,525.63 kt CO<sub>2</sub> eq in 2011 as part of the information on progress towards the target. The expert review team did not include these values in the table as the Party is a member State of the European Union, which has an unconditional commitment to reduce greenhouse gas emissions by 20 per cent by 2020 compared with the 1990 level that does not include emissions/removals from LULUCF.

<sup>&</sup>lt;sup>c</sup> Proxy values of the intended use of market-based mechanisms are based upon data communicated during the review. The Spanish policy on flexible mechanisms mentions a compliance strategy involving the annual use of flexible mechanisms for the equivalent of up to 20 per cent of the Kyoto Protocol base year level of emissions (289,773.21 kt CO<sub>2</sub> eq). These values might be reviewed because the inventoried emissions for the first commitment period in the 2014 annual submission are lower than the previously projected values.

- 39. Spain provided information on the changes since the previous NC in the methodologies used for the preparation of projections. The GHG emission projections provided by Spain in the BR1 and CTF tables 6 include a 'with measures', a 'with additional measures' and a 'without measures' scenario until 2030, presented relative to actual inventory data for 1990. Projections are presented in the NC6 on a sectoral basis, using the more detailed common reporting format (CRF) categories of the annual GHG inventory. The projections for the CRF fuel combustion category are disaggregated into the CRF categories of energy industries, manufacturing industries and construction, transport, and other sectors, which provide more transparency when compared with the projections in the NC5. Projections are also presented on a gas-by-gas basis for the following GHGs: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs and SF<sub>6</sub> (treating PFCs and HFCs collectively in each case). Projections are also provided in an aggregated format for each sector as well as for a national total, using GWP values. Emission projections related to fuel sold to aircraft engaged in international transport were reported separately and not included in the totals. Projections related to fuel sold to ships engaged in international transport are not included in the projections. During the review, Spain provided extensive additional information concerning the drivers and assumptions used in its emission projections work.
- 40. The ERT noted information reported by Spain on projected emissions by 2020. According to the reported information, the projected emissions are 33.8 per cent above the base year by 2020 in the 'with measures' scenario and 30.8 per cent above the base year by 2020 in the 'with additional measures' scenario. While the EU-wide target set for the sources covered by the EU ETS (21 per cent below the 2005 level by 2020) will certainly be achieved based on the nature of the instrument, all emission projection scenarios for Spain indicate that the target set for the emission sources under the ESD (10 per cent below the 2005 level by 2020) would not be achieved, with a gap of 54,500 kt  $\rm CO_2$  eq. Spain aims to address this gap through the 2020 Diffuse Sectors Road Map.

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

#### 1. Provision of financial support to developing country Parties

- 41. In its BR1 and CTF tables 7, 8 and 9, Spain reported information on the provision of financial, technological and capacity-building support required under the Convention. However, the BR1 includes only very limited and generic information on technological and capacity-building support to developing countries. The ERT recommends that Spain include more detailed information in its next BR, in particular on technological and capacity-building support.
- 42. Regarding financial support, Spain reported in its BR1 that "contributions are new and additional when support is given to activities that are new and specific on climate change". During the review, Spain provided additional information, elaborating on its definition of "activities that are new and specific on climate change". The ERT recommends that Spain report detailed information, including a definition on how the activities are new and specific to climate change, in its next BR.
- 43. Spain has provided information on financial resources related to the implementation of the Convention provided through bilateral, regional and other multilateral channels. In particular, the Party provided information on official development assistance (ODA) financial resources related to the implementation of the Convention through multilateral and regional channels, and through other official flows (OOF) (bilateral) not related to ODA.

44. Spain described in a very generic way how its resources address the adaptation and mitigation needs of Parties not included in Annex I to the Convention (non-Annex I Parties). The ERT noted that Spain reported specific information through the CTF tables on the assistance it has provided to developing country Parties that are particularly vulnerable to the adverse effects of climate change to help them to meet the costs of adaptation to those adverse effects. Nevertheless, the ERT noted that the information provided does not clarify how Spain identified the "most/particularly vulnerable" countries. The ERT recommends that Spain include more detailed information on this issue in its next BR. Spain has provided information on its financial contribution to the Adaptation Fund, established in accordance with decision 10/CP.7. Table 4 includes some of the information reported by Spain on its provision of financial support.

Table 4 Summary of information on provision of financial support in 2011–2012 (Millions of United States dollars<sup>a</sup>)

|  | Years of disbursement |        |  |
|--|-----------------------|--------|--|
| Allocation channel of public financial support                         | 2011                  | 2012   |  |
| Total official development assistance                                  | 4 458                 | 2 123  |  |
| Climate change official development assistance, including:             | 173.91                | 77.26  |  |
| Contributions to the UNFCCC and Kyoto Protocol funds                   | 0                     | 0      |  |
| Contributions to the Global Environment Facility                       | 0                     | 0      |  |
| Climate-specific contributions through other multilateral channels     | 153.82                | 2.55   |  |
| Climate-specific contributions through bilateral and regional channels | 20.09                 | 74.71  |  |
| Fast-start finance <sup>b</sup>  | 145                   | 183    |  |
| Other official flows   | 159.18                | 187.10 |  |

<sup>&</sup>lt;sup>a</sup> For United States dollar exchange rates, both real exchange rates and annual average dollar exchange rates for Organisation for Economic Co-operation and Development – Development Assistance Committee members have been used.

#### 2. Approach used to track support provided

45. The ERT noted that, taking into consideration the data included in the NC5, NC6 and BR1 as well as additional information provided during the review, the share of ODA related to climate change in relation to the total ODA increased from 1.4 per cent in 2008 to 4.9 per cent in 2010 and then decreased during the years 2011 and 2012. Table 5 includes information reported by Spain on the trends of provision of ODA financial resources.

Table 5
Trends of provision of official development assistance related to climate change in 2005–2012

|   | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|------|------|------|------|------|------|------|------|
| Percentage of ODA<br>related to climate change<br>compared with total ODA | 1.4  | 1.7  | 2.8  | 1.5  | 4.3  | 4.9  | 3.9  | 3.6  |

Abbreviation: ODA = official development assistance.

<sup>&</sup>lt;sup>b</sup> Fast-start finance is only part of the Spanish climate change contributions.

- 46. During the review, Spain provided information on the quantification of OOF during 2011 and 2012. In 2011, the OOF was 3.2 per cent lower than ODA related to climate change, while in 2012 it was 142 per cent higher than ODA related to climate change. For tracking the support provided through OOF, Spain used the project descriptions to identify and assess whether their objectives addressed concrete climate change issues.
- 47. In the period 2008–2012, Spain's bilateral support on average shows a clear focus on mitigation (64.4 per cent) and cross-cutting issues (22.9 per cent), while adaptation had a minor share of the financial support (12.7 per cent). This trend is similar to that reported in the NC5. For tracking the bilateral support provided, Spain in 2012 used the Organisation for Economic Co-operation and Development (OECD) Rio markers, while for previous years it used the OECD creditor reporting system. In the case of multilateral support, a number of contributions are easy to identify because they are delivered to funds and programmes specific to climate change, while other general contributions delivered to multilateral organisms are very difficult to track as there is no information on how much of these contributions is intended for climate change projects.
- 48. In its BR1, Spain reported general information on the financial instruments used for the provision of its support. For some data, the BR1 did not differentiate the resources provided as "grants", "equities" or "grants and concessional loans". During the review, Spain provided information in order to differentiate the amount of resources provided as "grants" and "equities" for the multilateral contributions. Spain also informed the ERT that in the case of "grants and concessional loans" for 2011 it is not possible to differentiate the amount provided by the instrument due to methodological reasons when tracking the data. The ERT encourages Spain to differentiate the resources provided as "grants", "equities" or "grants and concessional loans" in its next BR.
- 49. With regard to the most recent financial contributions, namely fast-start finance, to enhance the implementation of the Convention by developing countries, Spain informed the ERT during the review that it fulfilled its commitment by providing USD 171, 145 and 183 million during 2010, 2011 and 2012, respectively (fast-start period). These contributions are part of the Spanish total climate change financial contributions.

#### 3. Technology development and transfer

- 50. In its BR1 and CTF table 8, Spain has provided generic information, mostly at the regional level, on activities related to the transfer of technology to developing countries, including information on the public and private sectors. The ERT recommends that Spain include more detailed, comprehensive and specific information on this issue in its next BR (see paras. 51 and 52 below).
- 51. Spain did not provide detailed tabular or textual information about the following reporting elements required by the UNFCCC reporting guidelines on BRs: 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 the support of the development and enhancement of endogenous capacities and technologies of non-Annex I Parties; and a clear distinction between activities on promotion and financing technology transfer undertaken by the public and private sectors. The ERT recommends that Spain report this required information in its next BR.
- 52. Spain also did not provide information on success and failure stories on technology development and transfer in its BR1. During the review, Spain provided additional information, elaborating on some success and failure stories. The ERT encourages Spain to include information on success and failure stories on technology development and transfer in its next BR.

#### 4. Capacity-building

- 53. In its BR1 and CTF table 9, Spain has provided generic information on how it has provided capacity-building support for mitigation, adaptation and technology development and transfer. The ERT recommends that Spain include more detailed, comprehensive and specific information on these issues in its next BR (see para. 54 below).
- 54. The BR1 does not include detailed information required by the UNFCCC reporting guidelines on BRs on how it has provided 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. The ERT recommends that Spain include in its next BR the detailed information indicated above as required by the UNFCCC reporting guidelines on BRs.

#### **III.** Conclusions

- 55. The ERT conducted a technical review of the information reported in the BR1 and CTF tables of Spain in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the BR1 and CTF tables provide a good overview of information on emissions and removals related to the quantified economy-wide emission reduction target, a description of the target, and progress made by Spain to achieve its target, as well as a brief overview on provision of support to developing country Parties.
- 56. The ERT acknowledges the fact that the BR1 is provided as a separate document from the NC6 of Spain. As there is considerable overlap with regard to the information to be provided in the two documents, Spain chose to produce a concise BR1 with a limited level of detail, and referring to the information included in the NC6. The ERT encourages Spain to provide more detailed and comprehensive information in its BR2 in order to ensure completeness and transparency.
- 57. During the review, Spain provided additional information, including details on approaches used in developing projections, details on new PaMs planned and details on financial support provided.
- 58. Spain's GHG emissions related to the target for 2011 were estimated to be 23.9 per cent above its 1990 level excluding LULUCF and 21.9 per cent above its 1990 level including LULUCF. The increase in GHG emissions between 1990 and 2007 was driven by strong economic and demographic growth while the financial and economic crisis was one of the important factors inducing a decrease in emissions since 2008. The carbon intensity of the Spanish economy also decreased from around EUR 0.46 million per kt CO<sub>2</sub> eq in 2002 to EUR 0.30 million per kt CO<sub>2</sub> in 2012. A longer period of economic recovery will be necessary to enable a more thorough assessment of the relative contributions of mitigation measures and of the economic crisis in the evolution of the carbon intensity and overall GHG emissions in Spain.
- 59. Spain reported a description of its target, including associated conditions and assumptions. Spain does not have a country-specific target as it participates in achieving the EU quantified economy-wide target of a 20 per cent reduction in emissions by 2020 below the 1990 (base year) level. The EU target is divided into two, for EU ETS and non-EU ETS covered sectors. The target for EU ETS covered sectors is 21 per cent below the 2005 level by 2020 with no country-specific targets assigned. The target for non-EU ETS covered sectors is 10 per cent below the 2005 level by 2020 with country-specific targets assigned, which for Spain is 10 per cent below the 2005 level by 2020. This economy-wide target for the EU and its member States is based on the EU Climate and Energy Package. Net emissions and removals from the LULUCF sector are excluded from the base year and the

target. International aviation is partially in the scope of the EU ETS. Market-based mechanisms can be used within the EU. Surplus AAUs carried over from the first commitment period of the Kyoto Protocol will not be used to fulfil internal commitments as the EU legislation does not allow the use of surplus AAUs carried over from the first commitment period to meet the EU objectives for subsequent commitment periods.

- 60. According to the reported information, the projected emissions are 33.8 per cent above the base year by 2020 in the 'with measures' scenario and 30.8 per cent above the base year by 2020 in the 'with additional measures' scenario, which for the sectors not covered by the EU ETS means a gap of 54,500 kt  $\rm CO_2$  eq compared with the 2020 target. Spain aims to address this gap through the 2020 Diffuse Sectors Road Map.
- 61. Spain has provided in its BR1 comprehensive and well-organized information on its package of mitigation actions implemented and planned to achieve its target. The information on mitigation actions is organized by sector and by gas. Key PaMs are based on EU climate change policy, including the EU ETS, the EU energy efficiency directive, the EU renewable energy directive and the EU ESD. For implementation of the ESD, Spain has developed the 2020 Diffuse Sectors Road Map, which will play a key role in Spain achieving its 2020 target of reducing emissions in the sectors not covered by the EU ETS by 10 per cent compared with 2005.
- 62. Spain has provided specific information through the CTF tables on financial resources related to the implementation of the Convention provided through bilateral, regional and other multilateral channels. ODA is traditionally the key channel for Spain in providing financial support to non-Annex I Parties. In recent years, OOF has become an equally important channel, even exceeding ODA related to climate change in 2012. Regarding bilateral support, adaptation plays a minor role, with only 12.7 per cent of financial support in 2012. The BR1 includes limited and generic information on technological and capacity-building support to developing country Parties.
- 63. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of Spain's reporting under the Convention. The key recommendations<sup>5</sup> are that Spain:
- (a) Improve the completeness of reporting by including in the next BR the following:
  - (i) Information on the starting years for all PaMs in CTF table 3;
  - (ii) Information on the monitoring and evaluation process for PaMs and its results;
  - (iii) 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;
  - (iv) Information on the support of the development and enhancement of endogenous capacities and technologies of non-Annex I Parties;
  - (v) Information on how it has provided 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;
- (b) Improve the transparency of reporting by including in the next BR the following:

<sup>&</sup>lt;sup>5</sup> The recommendations are given in full in the relevant sections of this report.

- (i) Clarification and correction, when necessary, of the elements of the definition and description of the target, such as the inclusion of NF<sub>3</sub>, the use of GWP values and the inclusion of the LULUCF sector;
- (ii) More detailed information on the identification of "most/particularly vulnerable" countries;
- (iii) More detailed, comprehensive and specific information on technological and capacity-building support to developing country Parties;
- (iv) Detailed information, including a definition, on how activities related to financial support are new and specific to climate change;
- (v) More detailed information related to the transfer of technology to developing countries, including information on the participation of the public and private sectors.

#### **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 <a href="http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf">http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf</a>#page=4>.

"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 23/CP.19. Available at <a href="http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20">http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20</a>>.

FCCC/ARR/2012/ESP. Report of the individual review of the annual submission of Spain submitted in 2012. Available at <a href="http://unfccc.int/resource/docs/2013/arr/esp.pdf">http://unfccc.int/resource/docs/2013/arr/esp.pdf</a>>.

FCCC/ARR/2013/ESP. Report of the individual review of the annual submission of Spain submitted in 2013. Available at <a href="http://unfccc.int/resource/docs/2014/arr/esp.pdf">http://unfccc.int/resource/docs/2014/arr/esp.pdf</a>>.

FCCC/IDR.5/ESP. Report of the in-depth review of the fifth national communication of Spain. Available at <a href="http://unfccc.int/resource/docs/2011/idr/esp05.pdf">http://unfccc.int/resource/docs/2011/idr/esp05.pdf</a>>.

First biennial report of Spain. Available at

<a href="https://unfccc.int/files/national\_reports/biennial\_reports\_and\_iar/submitted\_biennial\_reports/application/pdf/131219\_primer\_informe\_bienal\_de\_espana.pdf">https://unfccc.int/files/national\_reports/biennial\_reports\_and\_iar/submitted\_biennial\_reports/application/pdf/131219\_primer\_informe\_bienal\_de\_espana.pdf</a>.

Sixth national communication of Spain. Available at

<a href="http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf/131220\_6cn[1].pdf">http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf</a> /131220\_6cn[1].pdf</a>>.

Annexes to the sixth national communication of Spain. Available at

<a href="http://unfccc.int/files/national\_reports/non-">http://unfccc.int/files/national\_reports/non-</a>

annex\_i\_natcom/submitted\_natcom/application/pdf/131220\_6cn\_anexos[1].pdf>.

2013 GHG inventory submission of Spain. Available at

 $< http://unfccc.int/files/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/application/zip/esp-2013-nir-15apr.zip>.$ 

2014 GHG inventory submission of Spain. Available at

 $< http://unfccc.int/files/national\_reports/annex\_i\_ghg\_inventories/national\_inventories\_submissions/application/zip/esp-2014-nir\_main-15apr.zip>.$ 

#### B. Additional information provided by the Party

Responses to questions during the review were received from Ms. Sara Aagesen (Spanish Climate Change Office, Ministry of Agriculture, Food and the Environment), including additional material on updated policies and measures, greenhouse gas projections, the national registry and recent climate policy developments in Spain. The following documents<sup>1</sup> were also provided by Spain:

<sup>&</sup>lt;sup>1</sup> Reproduced as received from the Party.

Agencia española de cooperación internacional para el desarrollo – Ministerio de asuntos exteriores y de cooperación. 2009. *Plan Director de la Cooperación Española 2009–2012*. Madrid: AECID.

Agencia española de cooperación internacional para el desarrollo – Ministerio de asuntos exteriores y de cooperación. 2011. *Plan de actuación sectorial de medio ambiente y cambio climático*. Madrid: AECID.

Agencia española de cooperación internacional para el desarrollo – Ministerio de asuntos exteriores y de cooperación. 2012. *Plan Director de la Cooperación Española 2013–2016*. Madrid: AECID.

Felicísimo, A. 2011. *Impactos, vulnerabilidad y adaptación al cambio climático de la biodiversidad española*. Oficina Española de Cambio Climático, Ministerio de Medio Ambiente y Medio Rural y Marino. Madrid: Grupo Kraken de la Universidad de Extremadura y Real Jardín Botánico (CSIC). Available at <a href="http://www.ibiochange.mncn.csic.es/atlascc">http://www.ibiochange.mncn.csic.es/atlascc</a>. Ministry of Agriculture, Food and the Environment. 2013. *Comunicación de España a la Comisión Europea. Art. 3.2.(b) de la Decisión 280/2004/CE: Proyección de emisiones de gases de efecto invernadero 2011—2030 (Spanish Communication of March 2013 to the EU Commission according to Art. 3.2(b) of Decision 280/2004/CE)*. Available at <a href="http://www.magrama.gob.es/es/calidad-y-evaluacion-ambiental/temas/sistema-espanol-de-inventario-sei-/decision\_280\_art\_32b\_npr\_tcm7-1742.pdf">http://www.magrama.gob.es/es/calidad-y-evaluacion-ambiental/temas/sistema-espanol-de-inventario-sei-/decision\_280\_art\_32b\_npr\_tcm7-1742.pdf</a>.

Ministry of Environment. 2002. *Plan Forestal Español (Spanish Forestry Plan)*. Available at <a href="http://www.magrama.gob.es/es/desarrollo-rural/temas/politica-forestal/pfe\_tcm7-30496.pdf">http://www.magrama.gob.es/es/desarrollo-rural/temas/politica-forestal/pfe\_tcm7-30496.pdf</a>.

Ribalaygua J. 2002. *Aplicación de un método de regionalización estadístico, con metodología analógica en dos pasos, para la generación de escenarios climáticos locales sobre España*. Fundación para la Investigación del Clima. Available at <a href="http://www.clivar.es/files/abstracts/sesion5/11--Ribalaygua\_Seminario-CLIVAR-Madrid-2009-02-13-FIC.ppt">http://www.clivar.es/files/abstracts/sesion5/11--Ribalaygua\_Seminario-CLIVAR-Madrid-2009-02-13-FIC.ppt</a>.