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Report of the technical review of the first biennial report of the United Kingdom of Great Britain and Northern Ireland

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 the United Kingdom of Great Britain and Northern Ireland 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. For the United Kingdom of Great Britain and Northern Ireland, the Convention entered into force on 21 March 1996. Under the Convention, the United Kingdom, as a member State of the European Union (EU), made a commitment to contribute to the joint EU target of reducing its greenhouse gas (GHG) emissions by 20 per cent by 2020 below the 1990 level.

2. This report covers the in-country technical review of the first biennial report (BR1)[1] of the United Kingdom, 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 15 to 20 September 2014 in London, United Kingdom, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Mr. Sandro Federici (San Marino), Mr. Jozsef Feiler (Hungary), Mr. Mahendra Kumar (Fiji) and Mr. Johan Remko Ybema (Netherlands). Mr. Ybema and Mr. Federici were the lead reviewers. The review was coordinated by Ms. Sylvie Marchand (secretariat).

4. During the review, the expert review team (ERT) reviewed each section of the BR1, including the common tabular format (CTF) tables.

5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of the United Kingdom, which provided comments that were considered and incorporated with revisions into this final version of the report.

B. Summary

6. The ERT conducted a technical review of the information reported in the BR1 and CTF tables of the United Kingdom in accordance with the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs).

7. During the review, the United Kingdom provided further relevant information on marine bunker fuels, projections updates, what financial resources are to be considered "new and additional" and the costs of individual policies and measures (PaMs).

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.

2. Timeliness

9. The BR1 was submitted on 20 December 2013, before the deadline of 1 January 2014 mandated by decision 2/CP.17, and a revised version was submitted on 22 January 2014. The CTF tables were submitted on 12 February 2014. The United Kingdom informed

[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 have been subject to the technical review.

the secretariat about its difficulties with the timeliness of its CTF tables in December 2013 in accordance with decision 23/CP.19, annex, paragraph 65. The United Kingdom submitted a revised version of its CTF tables on 20 October 2014, four weeks after the review week, to correct errors made in the initial submission and include missing information. The ERT noted the delay in the submission of the CTF tables and recommends that the United Kingdom submit revised versions of its documents within two weeks after the review week, which is allowed by decision 23/CP.19, paragraph 67, in cases where there is missing information.

3. Adherence to the reporting guidelines

10. The information reported by the United Kingdom in its BR1 mostly adheres 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 the United Kingdom[a]

Sections of the biennial report	*Completeness*	*Transparency*	*Reference to 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	Transparent	
Progress in achievement of targets	Complete	Mostly transparent	19, 28
Projections	Mostly Complete	Transparent	29
Provision of support to developing country Parties	Mostly complete	Transparent	38, 39

[a] A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in the chapter on conclusions.

II. Technical review of the reported information

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

11. The United Kingdom 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.

12. Total GHG emissions[2] excluding emissions and removals from land use, land-use change and forestry (LULUCF) decreased by 25.2 per cent between 1990 and 2012, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 26.2 per cent over the same period.[3] Emission decreases were driven by factors including the shift from coal-fired power generation towards electricity generation based on natural gas and renewable energy, the tighter regulation of landfills, energy efficiency standards and the abatement of emissions in adipic acid and nitric acid production. These factors outweighed growth in population and economic output. Further

[2] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent excluding land use, land-use change and forestry, unless otherwise specified.

[3] The United Kingdom's 2014 GHG inventory submission, version 1.2.

information on the review of emission and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication (IDR/NC6).

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

13. In its BR1 and CTF table 2, the United Kingdom reported a description of its quantified economy-wide emission reduction target, referred to henceforth as the target, including associated conditions and assumptions. Further information on assumptions, conditions and methodologies is provided in chapter II.C of the IDR/NC6.

14. Under the Convention, the United Kingdom participates in the EU target to achieve a 20 per cent reduction in emissions by 2020 compared with the 1990 (base year) level. The target for the EU and its member States is formalized in the EU 2020 climate and energy package. This includes the European Union Emissions Trading System (EU ETS) and the effort-sharing decision (ESD). This legislative package regulates emissions of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) using global warming potential (GWP) values from the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) to aggregate EU GHG emissions up to 2020. The United Kingdom also has a long-term target to reduce its GHG emissions by 80 per cent below the 1990 level by 2050.

15. The regulation of the emissions covered by the EU ETS entered into force on 1 January 2005, and a new period started in 2013, based on a year-on-year reduction equal to 1.74 per cent of the average allocation in the period 2008–2012, extrapolated starting in 2010, leading to a 21 per cent GHG emission reduction by 2020 compared to the 2005 level. As of 2013, emissions not covered by the EU ETS are regulated by member State specific targets agreed under the ESD. These targets are based on average emissions from 2008 to 2010 and on the gross domestic product per capita, which leads to a collective reduction by all the member States of around 10 per cent by 2020 compared with 2005. Under the ESD, the United Kingdom has a reduction target of 16 per cent by 2020 compared with 2005 for emissions covered by the ESD. In line with the EU approach to its target, the United Kingdom does not include emissions or removals from the LULUCF sector in defining its quantified economy-wide target. The information reported on assumptions, conditions and methodologies related to the attainment of the target is complete and transparent.

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

16. In its BR1 and CTF tables 3 and 4, the United Kingdom reported information on its mitigation actions implemented, adopted and planned since its fifth national communication to achieve its target. The United Kingdom also reported on the use of units from market-based mechanisms and LULUCF activities to achieve its target. The United Kingdom reported that it expects to meet its 2020 target with domestic measures and does not plan to use units from market-based mechanisms or LULUCF activities.

17. For the EU as a whole, it is expected that the market mechanism of the EU ETS will guarantee that emissions from sectors under this scheme (mainly large point sources such as power plants and industrial facilities) will achieve the 2020 target of 21 per cent below the 2005 level. As noted in paragraph 15 above, under the ESD, the United Kingdom has to reduce its emissions not covered under the EU ETS by 16 per cent by 2020 compared with

the 2005 level. In absolute terms, this means that the United Kingdom has to reduce emissions under the ESD from 380,700 kt carbon dioxide equivalent (CO_2 eq) in 2005 to 319,800 kt CO_2 eq in 2020.[4] In 2012, emissions from sectors not covered under the EU ETS were about 335,000 kt CO_2 eq, or 12 per cent below the 2005 level.

18. The ERT reviewed the reported information and noted the good progress made by the United Kingdom towards achieving the target.

1. Mitigation actions and their effects

19. The United Kingdom has provided in its BR1 brief information on its package of mitigation actions introduced to achieve its target. It gave a reference to chapter 3 of its sixth national communication (NC6) as the source of information on PaMs contributing to the achievement of mitigation targets. The BR1 provided information on mitigation actions organized by sector and by gas in CTF table 3. A detailed review of the reported information is provided in chapter II.B of the IDR/NC6. The ERT noted some inconsistencies in the names of PaMs between the textual description of PaMs in chapter 3 of the NC6 and CTF table 3 of the BR1. The ERT recommends that the United Kingdom report consistently the names of PaMs throughout its national communications (NCs) and biennial reports (BRs).

20. The key climate and energy policy framework is the Climate Change Act of 2008. The act provides a long-term framework to reduce GHG emissions in five year carbon budget cycles. It provides the legally binding framework for institutions and PaMs that aim at reducing GHG emissions in the United Kingdom by 80 per cent by 2050 compared to the 1990 level. In December 2011, the Government published the carbon plan, which sets out four scenarios and proposals for achieving the emission reductions committed to in the first four carbon budgets (2008–2027). The ERT commends the reporting on the general policy framework of carbon budgets set up by the United Kingdom, which it views as being innovative and replicable.

21. The United Kingdom's Devolved Administrations of Scotland, Wales and Northern Ireland develop and implement complementary PaMs. The Climate Change (Scotland) Act 2009 sets mandatory targets to achieve at least a 42 per cent reduction from 1990 levels of GHG emissions by 2020 and an 80 per cent reduction by 2050, which includes Scotland's share of international bunker emissions. In 2013, the Scottish Government published a report setting out proposals and policies for meeting those targets and also established a new strategic priority, the transition to a low carbon economy, emphasizing the central importance of low carbon to Scotland's future economic success. The Northern Ireland programme for government (2011–2015) commits the Northern Ireland Executive to reduce GHG emissions by 35 per cent compared to the 1990 levels by 2025, and a GHG emission reduction action plan was agreed in 2011 with the aim of achieving this target. Progress is monitored and reported annually by the Environment Minister to the Executive. The 2010 climate change strategy for Wales and associated delivery plans set out how the Welsh Government will act and work with partners to reduce GHG emissions by 3 per cent year-on-year in areas of devolved competence, meet a target to reduce all GHG emissions in Wales by 40 per cent relative to the 1990 level by 2020, and support effective adaptation to a changing climate.

22. The United Kingdom has established a comprehensive system for the monitoring and evaluation of PaMs. The Climate Change Act (2008) provides for a strong accountability system under which ex ante impact assessments for policy design and ex

[4] Trends and projections in Europe 2013. Tracking progress towards Europe's climate and energy targets until 2020. Available at <http://www.eea.europa.eu/publications/trends-and-projections-2013>.

post monitoring of the implementation and effectiveness of PaMs are carried out in a systematic manner. To this end, the independent Committee on Climate Change (CCC) established by the act advises the Government on the planning of the carbon budgets and on the policies to meet them, using an evidence-based approach. CCC also monitors and evaluates progress in meeting the carbon budgets and in reducing emissions to achieve the 2050 target, and makes recommendations to the Government on the way forwards in its annual report on progress to Parliament. The Government (Department of Energy and Climate Change (DECC)) also publishes a response to the CCC progress report, outlining how it intends to implement the recommendations.

23. At the EU level, the main framework guiding climate change policy is the EU 2020 climate and energy package, which sets targets for GHG emission reductions of at least 20 per cent below the 1990 levels for the EU as a whole and is linked to the implementation of the EU ETS and the effort-sharing agreement for the sectors not covered by the EU ETS. The sectors covered by the EU ETS (mainly CO_2 from power plants, energy-intensive industries and commercial airlines, N_2O from production of specific acids and PFCs from aluminium production) are required to reduce their GHG emissions by 21 per cent below the 2005 levels by 2020. In the United Kingdom, the sectors not covered by the EU ETS (mainly transport, buildings, small businesses and agriculture) are required to reduce their GHG emissions by 16 per cent over 2005–2020. The implementation of the EU 2020 climate and energy package is also linked to the EU renewable energy directive (2009/28/EC) and the EU energy efficiency directive (2012/27/EU).

24. The key PaMs reported in the BR1 expected to contribute the most annual avoided emissions in 2020 include: the new energy supply policies (comprising the electricity market reform (EMR) (2013), the renewable energy strategy and carbon capture and storage (CCS)) (73,113 kt CO_2 eq); the buildings regulations part L (2002, 2005 and 2006) (10,421 kt CO_2 eq); national products policy (standards for energy-using products) tranches 1 and 2 (2009 and 2013) (8,951 kt CO_2 eq); car policies (EU new car CO_2 emission targets (2012) (7,510 kt CO_2 eq); buildings regulations part L (2010) (5,849 kt CO_2 eq); and the renewable heat incentive (RHI) (2011) (5,631 kt CO_2 eq).

25. Table 2 provides a concise summary of the key mitigation actions implemented by the United Kingdom to achieve its target.

Table 2
Summary of information on mitigation actions reported by the United Kingdom

Sectors affected	*Key policies and measures, with start years of implementation*	*Estimate of mitigation impact (kt CO_2 eq)*
Policy framework and cross-sectoral measures		
	Climate Change Act (2008)	
	Carbon plan (2011)	
	European Union Emissions Trading System (2005)	
Energy		
Energy supply	New energy supply policies	73 113[a]
	Electricity market reform (2013), including contracts for difference (2017), capacity market (2017), carbon price floor (2013) and emissions performance standards (2009)	
	Carbon capture and storage (2017)	
Renewable energy sources (cross-cutting)	Renewables obligation (2002)	NE
	Renewable energy strategy (2009)	

Sectors affected	*Key policies and measures, with start years of implementation*	*Estimate of mitigation impact (kt CO_2 eq)*
	Renewable transport fuels obligation order (2007)	NE
	Feed-in tariffs scheme for micro-/small-scale renewable technologies (2010)	NE
	Renewable heat incentive (2011)	5 631
Energy efficiency (cross-cutting)	Energy efficiency strategy (2012)	NE
	National energy efficiency action plan (2014)	NE
	Energy efficiency obligation schemes	NE
	Energy audits and management systems	NE
	Smart metering and billing	NE
	Energy saving opportunity scheme (2014)	NE
	Energy efficiency commitment phases 1–2 (2002)	2 941
Residential and commercial sectors	Buildings regulations part L (2002, 2006) including 2005 condensing boiler update	10 421
	Building regulations part L (2010)	5 849
	Green deal and energy company obligation (2012)	3 906
	National products policy (standards for energy-using products) (2009, 2013)	8 951
	Smart metering (2014)	2 809
	Carbon emission reduction target uplift and extension (2011)	1 700
Transport	Car policies (European Union new car CO_2 emission targets) (2012)	7 510
	Biofuels policy (2013)	4 215
	Light goods vehicles policies (2012)	1 073
	Heavy goods vehicles policies (2012)	1 318
Industrial sectors and processes	Climate change agreements	NE
	Industrial emissions directive (2016)	
	Electricity demand reduction	NE
	Enhanced capital allowances	NE
	Ozone depleting substances regulation (2001)	NE
	Fluorinated greenhouse gas regulation (2009)	NE
Agriculture	English agriculture sector greenhouse gas action plan (2010)	3 200
	Nitrates action plan (2013)	NE
Forestry and LULUCF	Revised United Kingdom forestry standard (2011)	NE
	Rural development programmes (2007)	NE
	Forestry Act felling licence regulations and environmental impact (forestry) regulations (1999)	NE
Waste management	Landfill tax (2009)	NE

Note: The greenhouse gas reduction estimates given for some measures are avoided annual emissions of carbon dioxide or carbon dioxide equivalent for 2020.

[a] For combined measures (electricity market reform, carbon capture and storage, renewable energy strategy and industrial emissions directive).

26. In its BR1, the United Kingdom provided information on changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress towards its target. During the review, the United Kingdom provided updates on the impacts of PaMs implemented, and provided information on new and planned policies and their anticipated effects.

27. Information on the assessment of the economic and social consequences of response measures was not reported in chapter 4 of the BR1. However, the United Kingdom did report some information on assistance provided to developing countries particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation in chapter 6.7 of the NC6. The ERT encourages the United Kingdom to provide, to the extent possible, detailed information on the assessment of the economic and social consequences of response measures in its future BRs.

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

28. The United Kingdom reported in its BR1 and CTF table 4 on its plans to use units from market-based mechanisms under the Convention and on the contribution from LULUCF activities. The United Kingdom does not plan to use market-based mechanisms under the Convention or other mechanisms to achieve its target, although this is not explicitly stated in the BR1. The ERT notes that emissions and removals from the LULUCF sector are excluded from the EU 2020 target under the Convention and, as such, information in the BRs and CTF tables has to be consistent with this specificity. The ERT noted that "NA" and "NO" are used in CTF tables 4(a)II and 4(b) without explaining the rationale behind the use of the abbreviations and their definitions. Because the UNFCCC reporting guidelines on BRs do not provide for the use of notation keys, unlike GHG inventories, the ERT recommends that the United Kingdom improve the transparency of its reporting by explaining the rationale behind the use of each of these notation keys in CTF tables 4(a)II and 4(b) and in all other tables where such notation keys are used. Table 3 illustrates how the United Kingdom reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

Table 3
Summary 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 towards achievement of the target by the United Kingdom

Year	*Emissions excluding LULUCF ($kt\ CO_2\ eq$)*	*LULUCF[a] emissions/removals ($kt\ CO_2\ eq$)*	*Emissions including LULUCF ($kt\ CO_2\ eq$)*	*Use of units from the market-based mechanisms[a] ($kt\ CO_2\ eq$)*
Base year (1990)	783 412.30	NA	NA	NA
2010	613 217.89	NA	NA	0.00
2011	569 273.20	NA	NA	0.00
2012	586 357.13	NA	NA	0.00

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

[a] The United Kingdom, in common tabular format table 4, reported a contribution from the LULUCF sector of –6,783.33 kt carbon dioxide equivalent in 2011 and 2012 as part of information on progress towards the target. The expert review team did not include these values in the table above as the United Kingdom 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 1990 that does not include emissions/removals from LULUCF.

3. Projections

29. The United Kingdom has provided in its BR1 and CTF tables 5 and 6 information on its updated projections for 2020 and 2030. In the BR1, the United Kingdom provided a brief description of its projected 'with measures' scenario, accompanied by CTF table 5 on assumptions and CTF table 6(a) on the projection of the 'with measures' scenario as well as the total effect of its PaMs. However, emission projections related to fuel sold to ships and aircraft engaged in international transport and the total effect of PaMs by gas were not reported. The ERT therefore recommends that the United Kingdom report to the extent possible its projections related to fuel sold to ships and aircraft separately from the total in its next BR as well as the total effect of PaMs by gas. The United Kingdom made brief reference to a scenario without the PaMs adopted between 2009 and 2013, but did not otherwise provide information on a 'without measures' or a 'with additional measures' scenario. The ERT encourages the United Kingdom to also provide information on a fully developed 'without measures' and a 'with additional measures' scenario. A detailed review of the reported information is provided in chapter II.C of the IDR/NC6.

30. In its BR1, the United Kingdom provided information on the changes since the previous NC in the methodologies used for the preparation of projections. The BR1 briefly refers to the numerous changes in the detail of the demand equations and emissions modelling. The major change was the introduction of the profit maximizing model for the electricity sector. In the NC6 and during the review, more information on the methodological changes was received.

31. The ERT noted information reported by the United Kingdom on projected emission trends by 2020 and 2030. Overall, the United Kingdom's reported projections for 2020 show a decreasing emission trend. Total emissions in 2020 are expected to be at a level that is 43.4 per cent below the 1990 base year level in the 'with measures' scenario. In 2030, they are projected to be 48.7 per cent below the 1990 base year level. On a gas-by-gas basis, the United Kingdom reported that CO_2 emissions in 2011 (start year for projections) were 464,600 kt. According to the projections, CO_2 emissions in the 'with measures' scenario will decrease to 360,700 kt in 2020 and to 327,400 kt in 2030.

32. Projected non-CO_2 emissions in the 'with measures' scenario show a decrease in 2020 and a further decrease in 2030. While in 2011, non-CO_2 emissions were reported to be 91,800 kt CO_2 eq, they are projected to decrease to 78,200 kt CO_2 eq in 2020 and 69,600 kt CO_2 eq in 2030. Emissions of CH_4 are projected to decrease from 42,000 kt CO_2 eq in 2011 to 36,200 kt CO_2 eq in 2020 and 31,300 kt CO_2 eq in 2030. Emissions of N_2O are projected to only slightly decrease from 34,200 kt CO_2 eq in 2011 to 32,600 kt CO_2 eq in 2020 and 32,300 kt CO_2 eq in 2030. HFC emissions are projected to drop substantially from 14,700 kt CO_2 eq in 2011 to 8,600 kt CO_2 eq in 2020 and 5,200 kt CO_2 eq in 2030.

33. The United Kingdom has presented sector-by-sector projections. Energy supply sector emissions are expected to drop from 192,100 kt CO_2 eq in 2011 to 106,100 kt CO_2 eq in 2020 and 72,700 kt CO_2 eq in 2030. The drop until 2020 has three main reasons: the industrial emissions directive implies that plants which have opted out of retrofitting pollution abatement equipment are limited as to their remaining operating hours; through natural ageing and replacement of plants; and due to the less favourable economic position of the remaining coal-fired power capacity as a result of the carbon price support floor. Between 2020 and 2030, the reduction is caused by continued replacement of conventional power generation by a combination of renewable energy sources, CCS and nuclear energy as a result of the EMR programme. Generation from renewable energy sources is projected to grow significantly over the full period, initially as a result of the incentives provided by the renewable obligation and later by the contracts for difference.

34. GHG emissions from businesses (excluding industrial process emissions) are projected to fall from 89,200 kt CO_2 eq in 2011 to 70,300 kt CO_2 eq in 2020 and 63,700 kt CO_2 eq in 2030. This decline is influenced by a range of implemented PaMs (see table 2).

35. Residential GHG emissions are expected to increase compared to 2011. Emissions were 69,900 kt CO_2 eq in 2011 (although they were much higher – 90,200 kt CO_2 eq – in 2010) and are projected to grow to 78,000 kt CO_2 eq in 2020 and 84,900 kt CO_2 eq in 2030. The main drivers are the increasing population and the growing number of houses. It is noted that this projection assumes a continuation of past average temperature patterns.

36. Emissions from transport are projected to decrease from 119,100 kt CO_2 eq in 2011 to 107,700 kt CO_2 eq in 2020 and 103,400 kt CO_2 eq in 2030. This decrease takes place mainly because of an increase in the transport sector performance. More specifically, the reduction is caused by a combination of EU standards and fiscal instruments that promote efficient vehicles, mandate greater use of biofuels and encourage electrically powered vehicles.

37. Agriculture emissions are expected to fall from 51,400 kt CO_2 eq in 2011 to 45,500 kt CO_2 eq in 2020 and 44,900 kt CO_2 eq in 2030. CO_2 emissions are expected to fall largely as a result of fewer emissions from mobile machinery. A modest decrease in CH_4 emissions is driven by decreases in livestock numbers.

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

1. Provision of financial support to developing country Parties

38. In its BR1 and CTF table 7, the United Kingdom reported information on the provision of financial, technological and capacity-building support required under the Convention. The ERT noted the efforts made by the United Kingdom in filling out CTF table 7 and the challenges in reporting detailed financial information for 2011 and 2012. In CTF table 7, the United Kingdom indicated that the provision by the United Kingdom of pounds sterling (GBP) 3.87 billion in its international climate fund (ICF) was "new and additional", as it is an instrument set up after the fifteenth session of the Conference of the Parties (United Nations Climate Change Conference in Copenhagen, Denmark, 2009) and it is funded from the rising United Kingdom aid budget. However, the United Kingdom has not clarified how it has determined financial resources as being "new and additional" pursuant to Article 4, paragraph 3, of the Convention. The ERT recommends that the United Kingdom clarify how it has determined financial resources as being "new and additional" in its next BR.

39. In its submission available during the review week, the United Kingdom did not provide the financial figures required in its CTF table 7 for the year 2012. However, this information became available four weeks after the review week as part of the United Kingdom's 20 October 2014 revised submission of CTF tables (see para. 9 above for a recommendation on timeliness). In addition to the recommendation made on timeliness, the ERT recommends that the United Kingdom include information on the provision of financial support for the previous two calendar or financial years without overlapping with the previous reporting periods in its next BR.

40. The main mechanism for the United Kingdom's financial support for climate change activities is ICF. The purpose of ICF is to support international poverty reduction by helping developing countries to adapt to climate change, take up low carbon development and tackle deforestation. Through ICF, the United Kingdom aims to: demonstrate low

carbon, climate resilient growth, including through REDD-plus[5] support; support international climate negotiations; and build an enabling environment for private sector investment by creating new partnerships and mainstreaming climate change into the United Kingdom's official development assistance, EU development assistance and multilateral development bank lending.

41. The United Kingdom has provided financial support for climate change related programmes and projects to a large number of countries worldwide, including countries in Africa and Asia. Mitigation (in particular, through energy efficiency and renewable energy programmes and technology) remained the biggest area for support in 2011–2012, in line with the 2 °C goal. Adaptation accounted for approximately half the funds devoted to mitigation. However, in 2013, the United Kingdom was funding over GBP 800 million worth of adaptation programmes in a range of areas in some of the poorest and most vulnerable countries. Through ICF, the United Kingdom helps to build adaptation knowledge, capacity, institutions and evidence, as well as support direct adaptation actions. During the review, the United Kingdom expressed its goal of achieving a balance between funding for mitigation and adaptation through mainstreaming. The ERT commends the United Kingdom for its new direction that will realize more funding for adaptation.

42. The United Kingdom provided information on its efforts to mobilize private investment in climate projects and infrastructure. Using ICF, these efforts focus on reducing barriers, correcting existing market failures, creating the right investment conditions, and testing new and innovative approaches that can be replicated and scaled up. The United Kingdom hopes to create better understanding of private finance within ICF priority country governments, the United Kingdom Government as a whole and internationally to inform future climate finance policy and climate projects including the Green Climate Fund. The climate public private partnership is an example of a programme where the United Kingdom is working with the Asian Development Bank and the International Finance Corporation Asset Management Company in a joint effort to encourage new forms of private sector financing of climate investments and boost economic growth in developing economies.

43. The United Kingdom considers development of the global carbon market to be critical to securing a cost-effective transition to global low carbon development. It has promoted the use of market-based instruments both domestically and internationally. Some of the notable policies and approaches include the climate change agreements, the CRC energy efficiency scheme and the United Kingdom Emissions Trading Scheme, which helped shape the EU ETS. The United Kingdom is investing GBP 49 million in the World Bank's carbon initiative for development to improve access to carbon finance in least developed countries and help some of the poorest countries to participate in the international carbon market through the clean development mechanism. The ERT commends this initiative and encourages the United Kingdom to provide clarity on how it classifies countries as 'poorest'.

44. The United Kingdom reported on its climate-specific public financial support by allocation channels for 2011 and 2012, totalling USD 1,487.97 million (USD 702.20 million in 2011 and USD 785.77 in 2012). For the reporting period, 40.7 per cent of the assistance reported was delivered through bilateral, regional and other channels, while 59.3 per cent was through multilateral funds. Of the total funds reported for 2011, about

[5] In decision 1/CP.16, paragraph 70, the Conference of the Parties encouraged developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities: reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks.

58.0 per cent went to mitigation, 22.2 per cent to adaptation and 1.6 per cent to cross-cutting activities. In 2012, 52.0 per cent of the total funds were reported to have been allocated to mitigation, 28.0 per cent to adaptation and 1.4 per cent to cross-cutting activities.

45. The United Kingdom was the fourth largest contributor to the Global Environment Facility (GEF) fifth replenishment, with committed total funds (including climate-specific funds) of USD 301.25 million over the period 2010–2012. Within the support provided, the most important instruments were grants, followed by loans. Table 4 includes some of the information reported by the United Kingdom on its provision of financial support.

Table 4
Summary of information on provision of financial support in 2011–2012
(Millions of United States million dollars)

	Years of disbursement	
Allocation channel of public financial support	*2011*	*2012*
Official development assistance[a]	13 825.40	13 847.31
Climate-specific contributions through multilateral channels	517.98	365.04
Climate-specific contributions to the Global Environment Facility	64.90	33.92
Contributions through United Nations bodies	671.37	685.55
Climate-specific contributions through bilateral, regional and other channels	184.22	420.73
Fast-start finance		2 400[b]

Notes: (1) Official development assistance figures are for calendar years. All other figures apply to fiscal years, for example, 2011 refers to fiscal year 2011–2012; (2) Official development assistance figures were converted to United States dollars using period-average exchange rates provided by the Organisation for Economic Co-operation and Development.

[a] Figures in pounds sterling (prior to conversion to United States dollars) from <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254277/Statistics_on_International_Development_2013a.pdf>, table 1.

[b] The value is approximate and is for the period 2010–2012.

2. Approach used to track support provided

46. In the United Kingdom, the Department of International Development compiles annual statistics and reports on financial flows to developing countries. Detailed information is also submitted to the Organisation for Economic Co-operation and Development, using the Rio markers to track the allocation of funds to biodiversity, climate change and desertification. For ICF, the United Kingdom has established a comprehensive reporting framework, consisting of 15 key performance indicators, to track the effects and value for money of the ICF portfolio. The ERT was also informed about the greater scrutiny of climate finance by Parliament, the Independent Commission for Aid Impact and the National Audit Office. The ERT commends the United Kingdom for its reporting on the robust monitoring and evaluation plan that will allow it to monitor progress and achievement of targets and financial support commitments.

3. Technology development and transfer

47. In its BR1 and CTF table 8, the United Kingdom provided information on activities related to the transfer of technology to developing countries, including information on activities by the public and private sectors and measures related to the promotion, facilitation and financing of the transfer of, or access to, environmentally sound

technologies. The United Kingdom has provided information on incentives for the private sector to transfer technology to developing country Parties through various innovative initiatives such as pension funds.

48. The ERT noted that the United Kingdom did not report information on success and failure stories of technology development and transfer. The ERT encourages the United Kingdom to provide information on success and failure stories in its next BR.

49. In its CTF table 8, the United Kingdom has included four entries, providing information on the recipient country or region (Kenya, global, Africa, and "Africa, Asia Pacific" respectively), in the target areas of mitigation (which is the main area targeted) and adaptation. The four measures reported on were directed mainly at the energy sector but also to the agriculture and REDD-plus sectors and cross-cutting areas. The majority of the technology development and transfer examples reported consisted of knowledge-sharing, know-how and capacity-building in the areas of energy efficiency and renewable energy. The reported examples of technology transfer activities were mainly private industrial projects to which the United Kingdom's Government is financially contributing, while technology transfer activities undertaken by the public sector were reported to be transferred through international agencies. A review of reported information on measures related to technology transfer is provided in chapter II.D.2 of the IDR/NC6.

4. Capacity-building

50. In its BR1 and CTF table 9, the United Kingdom has provided information on how it has provided capacity-building support for mitigation, adaptation and technology. In its CTF table 9, the United Kingdom has included four entries providing information that covers mitigation, adaptation and governance, with a focus on the area of mitigation (energy and REDD-plus). The United Kingdom reported that two of its programmes/projects targeted Africa and Asia, while two others had a global coverage. During the review, the United Kingdom stressed that the capacity-building activities undertaken are very much integrated with other types of activities, for example, technology transfer. It also agreed that there is greater scope for sharing knowledge in other areas, for example, adaptation and research and systematic observation.

III. Conclusions

51. The ERT conducted a technical review of the information reported in the BR1 and CTF tables of the United Kingdom in accordance with the UNFCCC reporting guidelines on BRs. The ERT concluded 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, progress made by the United Kingdom to achieve its target and provision of support to developing country Parties. During the review, the United Kingdom provided additional information on marine bunker fuels, projections updates, what financial resources are to be considered "new and additional".

52. The United Kingdom's emissions in 2012 were estimated to be 25.2 per cent below the 1990 level excluding LULUCF and 26.2 per cent below including LULUCF. Emission decreases were driven by factors including the shift from coal-fired power generation towards electricity generation based on natural gas and renewable energy, the tighter regulation of landfills, energy efficiency standards and the abatement of emissions in adipic acid and nitric acid production. These factors outweighed growth in population and economic output.

53. Under the Convention, the United Kingdom participates in the EU target to achieve a 20 per cent reduction in emissions by 2020 compared with the 1990 (base year) level. The

target for the EU and its member States is formalized in the EU 2020 climate and energy package, which includes the EU ETS and the ESD. Emissions and removals from the LULUCF sector are not included in the quantified economy-wide emission reduction target. This legislative package regulates emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using GWP values from the AR4 of the IPCC to aggregate EU GHG emissions up to 2020.

54. For the EU as a whole, it is expected that the EU ETS will guarantee that the sectors which fall under this system (mainly large point sources such as power plants and industrial facilities) will achieve the 2020 target of 21 per cent below the 2005 level. For the non-ETS sectors, through the EU ESD the 2020 EU target has been translated to a 16 per cent reduction target (compared with the 2005 level) for the United Kingdom. In absolute terms, this means that the United Kingdom has to reduce emissions under the ESD from 380,700 kt CO_2 eq in 2005 to 319,800 kt CO_2 eq in 2020.[6] In 2012, emissions from sectors not covered under the EU ETS sectors were about 335,000 kt CO_2 eq, or 12 per cent below the 2005 level.

55. The United Kingdom reported GHG emission projections for 2020 and 2030 under a 'with measures' scenario. Total emissions in the 'with measures' scenario in 2020 are expected to be at a level that is 43.4 per cent below the 1990 level. In 2030, emissions are projected to reach a level that is 48.7 per cent below the 1990 level. The United Kingdom reported that it expects to meet its target with domestic measures and does not plan to use units from market-based mechanisms or LULUCF activities.

56. The key climate and energy policy framework in the United Kingdom is the Climate Change Act (2008), which provides a long-term framework to reduce GHG emissions in five year carbon budget cycles. It provides the legally binding framework for institutions and PaMs that aim at reducing GHG emissions. The carbon plan (2011) sets out proposals for achieving the emission reductions committed to in the first four carbon budgets (2008–2027). The key PaMs reported in the NC6 expected to contribute the most annual avoided emissions in 2020 include: the new energy supply policies (comprising EMR (2013), the renewable energy strategy and CCS) (73,113 kt CO_2 eq); the buildings regulations part L (2002, 2005 and 2006) (10,421 kt CO_2 eq); national products policy (standards for energy-using products) tranches 1 and 2 (2009 and 2013) (8,951 kt CO_2 eq); car policies (EU new car CO_2 emission targets (2012)) (7,510 kt CO_2 eq); buildings regulations part L (2010) (5,849 kt CO_2 eq); and the RHI (2011) (5,631 kt CO_2 eq).

57. The Climate Change Act also provides for a strong accountability system under which ex ante impact assessments for policy design and ex post monitoring and evaluation of the implementation and effectiveness of PaMs are carried out in a systematic manner. To this end, the independent CCC established by the act advises the Government on the planning of the carbon budgets and on the policies to meet them, using an evidence-based approach. CCC also monitors and evaluates progress in meeting the carbon budgets and in reducing emissions to achieve the 2050 target, and makes recommendations to the Government on the way forwards in its annual report on progress to Parliament. The Government (DECC) also publishes a response to the CCC progress report, outlining how it intends to implement the recommendations.

58. The United Kingdom has provided financial support for climate change related programmes and projects to a large number of countries worldwide, including countries in Africa and Asia. Mitigation (in particular, through energy efficiency and renewable energy sources) was the biggest area for support in 2011–2012, followed by adaptation.

[6] Trends and projections in Europe 2013. Tracking progress towards Europe's climate and energy targets until 2020. Available at <http://www.eea.europa.eu/publications/trends-and-projections-2013>.

59. The United Kingdom reported on its climate-specific public financial support by allocation channels for 2011 and 2012, totalling USD 1,487.97 million (USD 702.20 million in 2011 and USD 785.77 million in 2012). For the reporting period, 40.7 per cent of the assistance reported was delivered through bilateral, regional and other channels, while 59.3 per cent was through multilateral funds. Of the total funds reported for 2011, about 58.0 per cent went to mitigation, 22.2 per cent to adaptation and 1.6 per cent to cross-cutting activities. In 2012, 52.0 per cent of the total funds were reported to have been allocated for mitigation, 28.0 per cent to adaptation and 1.4 per cent to cross-cutting activities. The United Kingdom was the fourth largest contributor to the GEF fifth replenishment, with committed total funds (including climate-specific funds) of USD 301.25 million over the period 2010–2012. Within the support provided, the most important instruments were grants, followed by loans.

60. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of the United Kingdom's reporting under the Convention. The recommendations[7] are that the United Kingdom:

(a) Improve the timeliness of reporting by submitting revised versions of its documents within two weeks after the review (see para. 9 above);

(b) Improve the completeness of reporting by including in the next BR the following information:

(i) Projections related to fuel sold to ships and aircraft separately from the total projections (see para. 29 above);

(ii) The total effect of PaMs presented by gas (see para. 29 above);

(iii) Clarification of how it has determined financial resources as being "new and additional" pursuant to Article 4, paragraph 3, of the Convention (see para. 38 above);

(iv) Figures on the provision of financial support for the previous two calendar or financial years without overlapping with the previous reporting periods (see para. 39 above);

(c) Improve the transparency of reporting by including in the next BR the following information:

(i) Consistent naming of PaMs throughout NCs and BRs (see para. 19 above);

(ii) The rationale behind the use of each of the notation keys in CTF tables 4(a)II and 4(b) and in all other tables where such notation keys are used (see para. 28 above).

[7] The recommendations are given in full in the relevant sections of this report.

Annex

Documents and information used during the review

A. Reference documents

"UNFCCC biennial reporting guidelines for developed country Parties". Annex to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#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 <http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20>.

FCCC/ARR/2013/GBR. Report of the individual review of the annual submission of the United Kingdom of Great Britain and Northern Ireland submitted in 2013. Available at <http://unfccc.int/resource/docs/2014/arr/gbr.pdf>.

FCCC/IDR.5/GBR. Report of the in-depth review of the fifth national communication of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/resource/docs/2010/idr/gbr05.pdf>.

Sixth national communication of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/uk_6nc_and_br1_2013_final_web-access[1].pdf>.

First biennial report of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/uk_6nc_and_br1_2013_final_web-access[1].pdf>.

Common tabular format tables of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/uk_6nc_and_br1_2013_final_web-access[1].pdf>.

2013 GHG inventory submission of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/gbr-2013-nir-15apr.zip>.

2014 GHG inventory submission of the United Kingdom of Great Britain and Northern Ireland. Available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/gbr-2014-nir-15apr.zip>.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Andy Smith (Department of Energy and Climate Change), including additional material on updated policies and measures, greenhouse gas projections, the national registry and recent climate

policy developments in the United Kingdom of Great Britain and Northern Ireland. The following documents[1] were also provided by the United Kingdom:

Meeting Carbon Budgets – 2014 Progress Report to Parliament. Government response to the Sixth Annual Progress Report of the Committee on Climate Change. Department of Energy and Climate Change. Available at <www.gov.uk/government/publications>.

Updated energy and emissions projections 2014. Department of Energy and Climate Change. Available at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/368021/Updated_energy_and_emissions_projections2014.pdf>.

[1] Reproduced as received from the Party.