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Report of the technical review of the second biennial report of the Czech Republic

According to decision 2/CP.17, developed country Parties are requested to submit their second biennial report by 1 January 2016, that is, two years after the due date for submission of a full national communication. This report presents the results of the technical review of the second biennial report of the Czech Republic, conducted by an expert review team in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention".

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I. Introduction and summary

A. Introduction

1. This report covers the centralized technical review of the second biennial report (BR2)[1] of the Czech Republic. The review was organized by the secretariat in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention", particularly "Part IV: UNFCCC guidelines for the technical review of biennial reports from Parties included in Annex I to the Convention" (annex to decision 13/CP.20). In accordance with the same decision, a draft version of this report was communicated to the Government of the Czech Republic, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

2. The review took place from 14 to 19 March 2016 in Bonn, Germany, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Ms. Irina Atamuradova (Turkmenistan), Mr. William Blyth (United Kingdom of Great Britain and Northern Ireland), Ms. Patricia Iturregui (Peru), Ms. Awassada Phongphiphat (Thailand), Mr. Adrian Schilt (Switzerland), Mr. Yusuf Serengil (Turkey), Ms. Anna Sikharulidze (Georgia), Mr. Koen Smekens (Belgium), Ms. Tatiana Tugui (Republic of Moldova) and Ms. Andreja Urbancic (Slovenia). Mr. Smekens and Ms. Tugui were the lead reviewers. The review was coordinated by Mr. Daniel Hooper and Mr. Javier Hanna (UNFCCC secretariat).

B. Summary

3. The expert review team (ERT) conducted a technical review of the information reported in the BR2 of the Czech Republic in accordance with the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs). During the review, the Czech Republic provided the following additional relevant information: historical and projected national emissions covered by the European Union Emissions Trading System (EU ETS) and by the effort-sharing decision (ESD); emission projections related to fuel sold to ships and aircraft engaged in international transport; and sensitivity analyses for emission projections.

1. Timeliness

4. The BR2 was submitted on 17 December 2015, before the deadline of 1 January 2016 mandated by decision 2/CP.17. The common tabular format (CTF) tables were submitted on 17 December 2015, and revised CTF tables were submitted on 14 March 2016.

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

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

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

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

Section of the biennial report	*Completeness*	*Transparency*	*Paragraphs with recommendations*
Greenhouse gas emissions and trends	Complete	Transparent	
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Mostly transparent	13, 14
Progress in achievement of targets	Mostly complete	Mostly transparent	22, 23, 24, 38, 39
Provision of support to developing country Parties[a]	NA	NA	NA

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

Abbreviation: NA = not applicable.

[a] The Czech Republic is not a Party included in Annex II to the Convention and is therefore not obliged to adopt measures and fulfil obligations as defined in Article 4, paragraphs 3, 4 and 5, of the Convention.

II. Technical review of the reported information

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

6. The Czech Republic has provided a summary of information on greenhouse gas (GHG) emission trends for the period 1990–2013 in its BR2 and CTF tables 1(a)–(d). The BR2 makes reference to the national inventory arrangements, which are explained in more detail in the national inventory report included in the Czech Republic's 2015 annual inventory submission (in chapter 1.2). The national inventory arrangements were established in accordance with the reporting requirements related to national inventory arrangements contained in the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories" that are required by paragraph 3 of the UNFCCC reporting guidelines on BRs. Further, the Czech Republic provided information on changes in the national inventory arrangements since its first biennial report (BR1), which are: a new coordinator for the national inventory process; a new expert for the industrial processes and product use sector; and a new expert for quality assurance/quality control and for the waste sector.

7. The information reported in the BR2 on emission trends is not fully consistent with that reported in the 2015 annual inventory submission of the Czech Republic. For example, in the BR2 chapter on information on GHG emissions and trends (chapter 2), figures 2-2 and 2-7 display some of the time series data incorrectly (e.g. the figures cover the time interval from 1991 to 2014 instead of 1990 to 2013), and in figure 2-4, total GHG emissions are shown instead of carbon dioxide (CO_2) emissions, as described in the caption provided. Moreover, on page 5 of the Czech Republic's BR2, the reported shares of different gases in the total GHG emissions do not consistently exclude the contribution

from land use, land-use change and forestry (LULUCF). During the review, the Czech Republic acknowledged these and other inconsistencies highlighted by the ERT. To increase transparency, the ERT encourages the Czech Republic to report in its next biennial report (BR) summary information on GHG emissions and emission trends fully consistent with the information provided in the most recent annual inventory submission.

8. The ERT also noted that indirect CO_2 emissions, if reported, are part of a Party's total GHG emissions relevant under the Convention. Although the Czech Republic did report indirect CO_2 emissions in its 2015 annual inventory submission and in CTF table 1, it did not include indirect CO_2 emissions in the discussion, calculations and figures in the chapter on information on GHG emissions or elsewhere in the BR2. To increase transparency, the ERT encourages the Party to include indirect CO_2 emissions in the chapter on information on GHG emissions and elsewhere in its next BR, and also encourages the Party to consider including indirect CO_2 emissions in its presentation of the emission target and emission projections.

9. To reflect the most recently available data, version 1 of the Party's 2015 annual inventory submission has been used as the basis for discussion in chapter II.A of this review report. In addition, to be consistent with the Party's BR2, indirect CO_2 emissions are not considered in this review report apart from presenting them in table 2.

10. Total GHG emissions[2] excluding emissions and removals from LULUCF and excluding indirect GHG emissions decreased by 34.2 per cent between 1990 and 2013, whereas total GHG emissions including net emissions and removals from LULUCF but excluding indirect GHG emissions decreased by 35.6 per cent over the same period. The decrease in total GHG emissions can be attributed mainly to CO_2 emissions, which decreased by 34.4 per cent (excluding emissions and removals from LULUCF and excluding indirect GHG emissions) between 1990 and 2013. Over the same period, emissions of methane (CH_4) decreased by 41 per cent, while emissions of nitrous oxide (N_2O) decreased by 43.8 per cent. The combined fluorinated gases, such as perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3), increased from 15.68 kt CO_2 eq in 1990 to 2,705.42 kt CO_2 eq in 2013. The decreasing emission trend for CO_2 was driven mainly by the transition to a market-driven economy most notably in the period 1990–1995, which resulted in the winding down and restructuring of certain industrial sectors, as well as the implementation of new industrial technologies. The decrease in CH_4 emissions was driven mainly by reduced coal mining and a decrease in livestock numbers. The decrease in N_2O emissions was driven by a reduction in the use of mineral fertilizer in agriculture and a decrease in livestock numbers, compounded by the use of new technologies leading to reduced N_2O emissions during the production of nitric acid.

11. The ERT noted that, during the period 1990–2013, the Czech Republic's gross domestic product (GDP) per capita increased by 41.9 per cent, while total GHG emissions (excluding emissions and removals from LULUCF and excluding indirect GHG emissions) per GDP and GHG emissions per capita decreased by 54.5 and 35.4 per cent, respectively. Table 2 below illustrates the emission trends by sector and some of the economic indicators relevant to GHG emissions for the Czech Republic.

[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. Values in this paragraph are calculated based on the 2015 inventory submission, version 1 and exclude indirect CO_2 emissions.

Table 2
Greenhouse gas emissions by sector and some indicators relevant to greenhouse gas emissions for the Czech Republic for the period 1990–2013

	GHG emissions (kt CO_2 eq)					*Change (%)*		*Share by sector (%)*	
Sector	*1990*	*2000*	*2010*	*2012*	*2013*	*1990–2013*	*2012–2013*	*1990*	*2013*
1. Energy	157 253.80	120 169.81	110 727.68	105 069.02	100 876.57	–35.9	–4.0	81.3	79.3
A1. Energy industries	56 900.29	62 045.25	61 917.16	59 236.49	55 919.61	–1.7	–5.6	29.4	44.0
A2. Manufacturing industries and construction	51 223.91	23 421.48	12 466.20	11 375.64	11 017.60	–78.5	–3.1	26.5	8.7
A3. Transport	7 284.03	12 141.77	17 323.07	16 801.33	16 649.55	128.6	–0.9	3.8	13.1
A4.–A5. Other	31 187.34	16 137.90	13 862.54	12 744.65	13 300.46	–57.4	4.4	16.1	10.5
B. Fugitive emissions from fuels	10 658.22	6 423.40	5 158.70	4 910.91	3 989.34	–62.6	–18.8	5.5	3.1
C. CO_2 transport and storage	NO	NO	NO	NO	NO				
2. IPPU	17 062.33	14 079.47	13 305.09	13 579.87	14 122.69	–17.2	4.0	8.8	11.1
3. Agriculture	15 820.23	8 248.24	7 137.90	7 237.88	7 263.34	–54.1	0.4	8.2	5.7
4. LULUCF	–6 319.88	–7 115.13	–5 303.09	–7 037.58	–6 741.78	6.7	–4.2	NA	NA
5. Waste	3 219.71	3 586.50	4 463.06	4 711.23	4 881.34	51.6	3.6	1.7	3.8
6. Other	NO	NO	NO	NO	NO	–	–		
Indirect CO_2	3 638.12	2 451.83	2 070.68	1 962.21	2 248.99	–38.2	14.6	NA	NA
Total GHG emissions without LULUCF	193 356.07	146 084.02	135 633.72	130 597.99	127 143.93	–34.2	–2.6	100.0	100.0
Total GHG emissions with LULUCF	187 036.19	138 968.89	130 330.63	123 560.41	120 402.15	–35.6	–2.6	NA	NA
Total GHG emissions, without LULUCF, including indirect CO_2	196 994.19	148 535.86	137 704.40	132 560.19	129 392.92	–34.3	–2.4		
Total GHG emissions, with LULUCF, including indirect CO_2	190 674.31	141 420.73	132 401.31	125 522.61	122 651.14	–35.7	–2.3		
Indicators									
GDP per capita (thousands 2011 USD using PPP)	19.84	21.00	28.11	28.31	28.15	41.9	–0.6		
GHG emissions without LULUCF per capita (t CO_2 eq)	18.71	14.25	12.95	12.43	12.09	–35.4	–2.7		

Sector	GHG emissions (kt CO_2 eq)					Change (%)		Share by sector (%)	
	1990	*2000*	*2010*	*2012*	*2013*	*1990–2013*	*2012–2013*	*1990*	*2013*
GHG emissions without LULUCF per GDP unit (kg CO_2 eq per 2011 USD using PPP)	0.94	0.68	0.46	0.44	0.43	–54.5	–2.1		

Sources: (1) GHG emission data: the Czech Republic's 2015 annual inventory submission, version 1; (2) GDP per capita data: World Bank.

Note: The ratios per capita and per GDP unit as well as the changes in emissions and the shares by sector are calculated relative to total GHG emissions excluding emissions and removals from LULUCF and excluding indirect CO_2 emissions using the exact (not rounded) values, and may therefore differ from the ratio calculated with the rounded numbers provided in the table.

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

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

12. In its BR2 and CTF tables 2(a)–(f), the Czech Republic reported a description of its target, including associated conditions and assumptions. CTF tables 2(a)–(f) contain the required information in relation to the description of the Party's emission reduction target, such as: the base year; the gases and sectors covered; the global warming potential (GWP) values; and the approach to counting emission and removals from LULUCF. Further information on the target and the assumptions, conditions and methodologies related to the target in is provided in chapter 3 of its BR2.

13. In table 3-1 of its BR2, the Czech Republic did not include NF_3 under the gases covered by the quantified economy-wide emission reduction target. In contrast, NF_3 is listed in its CTF table 2(b) under the gases covered by the quantified economy-wide emission reduction target. In response to a question raised by the ERT during the review, the Czech Republic explained that NF_3 is not included under the quantified economy-wide emission reduction target of the European Union (EU) and should, thus, be deleted in CTF table 2(b). To increase transparency, the ERT recommends that the Czech Republic provide correct and consistent information on the gases included under its quantified economy-wide emission reduction target in the text of the BR and the CTF tables in its next submission.

14. In table 3-1 of its BR2, the Czech Republic indicated that 1990 is the base year for all gases relevant for the quantified economy-wide emission reduction target. In contrast, CTF table 2(b) indicated that 1995 is the base year for HFCs, PFCs, SF_6 and NF_3. In response to a question raised by the ERT during the review, the Czech Republic explained that 1990 is the base year for all gases listed in table 3-1 and CTF table 2(b). To increase transparency, the ERT recommends that the Czech Republic provide correct and consistent information on the base year for each gas relevant for the quantified economy-wide emission reduction target in the text of the BR and the CTF tables in its next submission.

15. For the Czech Republic, the Convention entered into force on 21 March 1994. Under the Convention, the Czech Republic committed to contributing to the achievement of the joint EU economy-wide emission reduction target of 20 per cent below the 1990 level by 2020. The EU offered to move to a 30 per cent reduction on the condition that other developed countries commit to a comparable target and developing countries contribute

according to their responsibilities and respective capabilities under a new global climate change agreement.

16. The target for the EU and its member States is formalized in the EU 2020 climate and energy package. This legislative package regulates emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 using GWP values from the Intergovernmental Panel on Climate Change Fourth Assessment Report (AR4) to aggregate the GHG emissions of the EU up to 2020. Emissions and removals from the LULUCF sector are not included in the quantified economy-wide emission reduction target under the Convention. The EU generally allows its member States to use units from the Kyoto Protocol mechanisms as well as new market mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. Companies can make use of such units to fulfil their requirements under the EU ETS.

17. The EU 2020 climate and energy package includes the EU ETS and the ESD (see chapter II.C.1 below). Further information on this package is provided in the first technical review report and the BR1. The EU ETS covers mainly point emissions sources in the energy, industry and aviation sectors. For the period 2013–2020, an EU-wide cap has been put in place with the goal of reducing emissions by 21 per cent below the 2005 level by 2020. Emissions from sectors covered by the ESD are regulated by targets specific to each member State, which leads to an aggregate reduction at the EU level of 10 per cent below the 2005 level by 2020.

18. Under the ESD, the Czech Republic had a target to limit its emission growth to 9 per cent above the 2005 level by 2020 from sectors covered by the ESD (non-ETS sectors). National emission targets for non-ETS sectors for 2020 have been translated into binding quantified annual emission allocations (AEAs) for the period 2013–2020. The Czech Republic's AEAs change following a linear path from 62,474.35 kt CO_2 eq in 2013 to 67,654.45 kt CO_2 eq in 2020 (an overall increase of 8.3 per cent between 2013 and 2020)[3]. Emissions and removals from LULUCF are not included under the ESD, but the ERT notes that indirect CO_2 emissions should be included, as discussed in paragraph 8 above. The Czech Republic states in its BR2 that it does not plan to use credits from market-based mechanisms to reach its target under the ESD.

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

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

1. Mitigation actions and their effects

20. In its BR2 and CTF table 3, the Czech Republic reported on its progress in the achievement of its target and the mitigation actions implemented and planned since its sixth national communication (NC6) and the BR1 to achieve its target. The Czech Republic has

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

provided information on mitigation actions introduced to achieve its target. The BR2 includes updated information on mitigation actions organized by level of implementation (EU level or national level), and by sector and by gas. Further information on the mitigation actions related to the Party's target is provided in chapter 4 of the BR2, in the first technical review report/BR1 and in this report (see para. 30 below).

21. This report highlights the changes made since the publication of the Party's NC6 and BR1. In its BR2, the Czech Republic provided information on changes in its domestic institutional arrangements. In 2015, an interministerial working group for climate change was established, which covers the involvement of non-governmental agencies. One task of the working group is the development of a new Climate Protection Policy of the Czech Republic. This strategic document will replace the National Programme to Abate the Impacts of Climate Change in the Czech Republic from 2004 and will serve as a Low Carbon Development Strategy of the Czech Republic until 2030 with the outlook for 2050. The Climate Protection Policy document is planned to be presented to the Government by 31 March 2016, with adoption anticipated in early 2017.

22. In its BR2, the Czech Republic did not provide transparent 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 made towards its target. In the BR1, the Czech Republic cited the European Commission report to the European Parliament and the Council of the European Union[4] as a reference to the information on progress in monitoring and meeting the objectives of the second commitment period of the Kyoto Protocol. However, neither this citation nor further information are included in the Czech Republic's BR2. In response to a question raised by the ERT during the review, the Czech Republic stated that arrangements on self-assessment of compliance similar to what it reported in its BR1 are still in place in the EU and gave reference to the latest report on progress.[5] The Party also added that all changes in its national inventory system are listed in its official national inventory report (NIR) submitted in November 2015 (chapters 1.2 and 1.3). To increase completeness, the ERT recommends that the Party provide information on changes in the domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress made towards its target in its next BR.

23. The mitigation impacts of some mitigation actions were not reported in CTF table 3; instead the notation key "NA" (not applicable) was used. In response to a question raised by the ERT during the review, the Party stated that the impacts of two of the mitigation actions were not estimated because their impacts were included in other measures. However, the Party did not provide the reasons for not estimating the impacts of the 10 mitigation actions listed in CTF table 3. To increase transparency, the ERT recommends that the Party estimate the mitigation impacts of its mitigation actions, or explain the reason why they are not estimated, in its next BR.

24. As an EU member State, the Czech Republic excludes the use of LULUCF to reach its Convention target for 2020. However, the ERT notes that there are LULUCF actions listed in CTF table 3, which should only reflect information on mitigation actions and their effects related to the Party's progress in achieving their quantified economy-wide emission

[4] Report from the European Commission COM (2013) 698 final. *Progress towards Achieving the Kyoto and EU 2020 Objectives*. October 2013. Available at <http://ec.europa.eu/clima/policies/strategies/progress/docs/com_2013_698_en.pdf>.

[5] Report from the European Commission COM (2015) 576 final. *Climate Action Progress Report*. November 2015. Available at <https://ec.europa.eu/transparency/regdoc/rep/1/2015/EN/1-2015-576-EN-F1-1.PDF>.

reduction target. Therefore, to increase transparency, the ERT recommends that the Czech Republic clearly indicate, for example in a footnote in CTF table 3, that mitigation actions reported in the LULUCF sector are not part of actions to achieve its target in its next BR.

25. In its BR2, the Czech Republic cited chapter 15 of its 2015 NIR as an information source on the assessment of the economic and social consequences of its response measures. However, the ERT noted that the information provided in chapter 15 of the 2015 NIR only includes a table that lists the actions by the Czech Republic to minimize adverse impacts on developing country Parties and the corresponding implementation status of the action. The Party also lists the 2015 NIR of the EU as a reference for EU-wide policies. During the review, the ERT asked the Party whether it could provide information on how it assesses the economic and social consequences of response measures. The Party responded that it has no specific methodologies for the assessment of the economic and social consequences of response measures. However, the Czech Republic stated that such assessments are carried out as part of the impact assessment of the EU-wide legislative proposals and other measures, and that a reference to this EU level assessment is provided in Chapter 15 of NIR. To increase completeness, the ERT encourages the Party to include, to the extent possible, detailed information on the assessment of the economic and social consequences of response measures in its next BR.

26. The Czech Republic did not report on its domestic institutional arrangements established for the process of self-assessment of compliance with emission reductions required by science, and on the progress made in the establishment of national rules for taking action against non-compliance with emission reduction targets. In response to a question raised by the ERT during the review, the Party stated that no specific domestic arrangements have been established for the process of self-assessment in the Czech Republic. However, the Czech Republic clarified that, as an EU member State, it is part of the EU measuring, reporting and verification framework, which is based on the relevant EU regulation (525/2013/EU) on a mechanism for monitoring and reporting GHG emissions and includes monitoring and reporting under the EU ETS directive and the ESD. To increase completeness, the ERT encourages the Party to include this information on its domestic institutional arrangements established for the process of self-assessment of compliance with emission reductions required by science, and on the progress made in the establishment of national rules for taking action against non-compliance with emission reduction targets in its next BR.

27. The key overarching cross-sectoral policy in the EU is the 2020 climate and energy package adopted in 2009, which includes the revised EU ETS and the ESD. This package is supplemented by renewable energy and energy efficiency legislation and legislative proposals on the 2020 targets for CO_2 emissions from cars and vans, the carbon capture and storage directive, and the general programmes for environmental conservation, namely the 7th Environment Action Programme and the Clean Air Policy Package (see table 3 below).

28. In operation since 2005, the EU ETS is a cap-and-trade system that covers all significant energy-intensive installations (mainly large point emissions sources such as power plants and industrial facilities), which produce 40–45 per cent of the GHG emissions of the EU. It is expected that the EU ETS will guarantee that the 2020 target (a 21 per cent emission reduction below the 2005 level) will be achieved for sectors under the scheme. The third phase of the EU ETS started in 2013 and the system now includes aircraft operations (since 2012) as well as N_2O emissions from chemical industries, PFC emissions from aluminium production and CO_2 emissions from industrial processes (since 2013).

29. The ESD became operational in 2013 and covers sectors outside the EU ETS, including transport (excluding domestic and international aviation, and international maritime transport), residential and commercial buildings, agriculture, waste and other sectors, together accounting for 55–60 per cent of the GHG emissions of the EU. The ESD

aims to decrease GHG emissions in the EU that it covers by 10 per cent below the 2005 level by 2020 and includes binding annual targets for each member State for 2013–2020, which are underpinned by the national policies and actions of the member States. The Czech Republic is allowed to increase its emissions in the ESD (non-ETS) sectors according to its AEAs (see para. 18 above).

30. At the national level, the Czech Republic introduced policies to achieve its targets under the ESD and domestic emission reduction targets. The adopted policy frameworks and cross-sectoral measures that have direct or non-direct mitigation impacts are the State Environmental Policy, the National Emission Reduction Programme, and the State Energy Policy. The key policies reported in the BR2 are the law on "Preferential feed-in tariffs for electricity produced from renewable energy sources" and the EU ETS. The mitigation effect of the former is the most significant, because this law is the principle measure for supporting the use of renewable energy sources (RES) in power generation. It defines minimal feed-in tariffs for electricity produced from RES and guarantees its long-term validity and the obligation of distributors to connect RES to the national grid and purchase electricity from RES. Other policies that have delivered significant emission reductions are the Operational Programme Enterprise and Innovation for Competitiveness, the New Green Savings Programme, and the policy on Minimum Share of Biofuels.

31. The BR2 highlights the importance of the Climate Protection Policy of the Czech Republic, which is under development (see para. 21 above). This policy is critical for the Czech Republic to attain its 2020 emission reduction targets. Table 3 below provides a concise summary of the key mitigation actions and estimates of their mitigation effects reported by Czech Republic to achieve its target.

Table 3
Summary of information on mitigation actions and their impacts reported by the Czech Republic

Sector affected	*List of key mitigation actions*	*Estimate of mitigation impact by 2020 (kt CO_2 eq)*
Policy framework and cross-sectoral measures	National Programme to Abate the Climate Change Impacts in the Czech Republic	NA
	EU ETS	3 230
	Climate Protection Policy	NA
	State Environmental Policy	NA
	National Emission Reduction Programme	NA
Energy, including:		
Transport	Increase of the public transport attractiveness	636
	Operational Programme Transport	NA
Renewable energy	National Renewable Energy Resources Plan	NA
	Preferential feed-in tariffs for electricity produced from renewable energy sources	3 242
Energy efficiency	Operational Programme Enterprise and Innovation for Competitiveness	1 611

Sector affected	*List of key mitigation actions*	*Estimate of mitigation impact by 2020 (kt CO_2 eq)*
	New Green Savings Programme 2015–2020	997
	Efficiency improvements of district heating systems	621
	Integrated Regional Operating Programme	627
IPPU	Regulation No. 517/2014/EU of 16 April 2014 on fluorinated greenhouse gases	678
Agriculture	Strategy for Growth	NA
	Rural Development Programme 2014–2020	200
	Nitrate Directive (1991/676/EEC) – Third Action Plan	NA
Agriculture	NA	NA
Waste	Waste Management Plan 2015–2024	388

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

Abbreviations: EU ETS = European Union Emissions Trading System, IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable.

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

32. The Czech Republic reported in its BR2 that the contribution of LULUCF is not relevant for its target under the Convention. Accordingly, the cells related to the use of market-based mechanisms and the contribution of LULUCF in CTF tables 4, 4(a)I, 4(a)II and 4(b) are either empty or contain "NA" or "NO" (not occurring) entries.

33. On its use of units from market-based mechanisms under the ESD, the Czech Republic reported that quantification was not possible for its BR2 submission because the compliance assessment for the first year under the ESD (2013) will take place in 2016. However, the Czech Republic reported that it does not currently intend to use units from market-based mechanisms under the ESD.[6] Regarding the use of units from market-based mechanisms under the EU ETS, the Czech Republic referred to the BR2 of the European Union, which states that certified emission reductions and emission reduction units can be used for compliance purposes, subject to a number of restrictions in terms of origin and type of project, and up to an established limit.

34. For 2013, the Czech Republic reported in CTF table 4 annual total GHG emissions excluding emissions and removals from LULUCF and excluding indirect GHG emissions (however, see para. 8 above on indirect CO_2 emissions) of 127,143.93 kt CO_2 eq, or 34.2 per cent below the 1990 level. Table 4 below illustrates the Czech Republic's total GHG emissions, the contribution of LULUCF and the use of units from market-based mechanisms to achieve its target.

[6] See page 25 of the Czech Republic's BR2.

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

Year	*Emissions excluding LULUCF(kt CO_2 eq)*	*Contribution from LULUCF (kt CO_2 eq)*[a]	*Emissions including contribution from LULUCF (kt CO_2 eq)*	*Use of units from market-based mechanisms (kt CO_2 eq)*
1990	193 356.07	NA	NA	NA
2010	135 633.72	NA	NA	NA
2011	134 622.33	NA	NA	NA
2012	130 597.99	NA	NA	NA
2013	127 143.93	NA	NA	NA

Sources: The Czech Republic's second biennial report and common tabular format tables 1, 4, 4(a) I, 4(a)II and 4(b).

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

[a] The European Union's unconditional commitment to reduce greenhouse gas emissions by 20 per cent below the 1990 level by 2020 does not include emissions/removals from LULUCF.

35. In response to a question raised by the ERT during the review, the Czech Republic provided additional information that elaborated on the split of national emissions covered by the EU ETS and by the ESD. Specifically, the Czech Republic stated that emissions from stationary installations covered by the EU ETS were 67,710 kt CO_2 eq in 2013, and emissions covered by the ESD (non-ETS emissions) were 59,430 kt CO_2 eq in 2013. While not required by the UNFCCC reporting guidelines on BRs, the ERT considers this information to be essential to assess the progress made towards the target. The ERT suggests that the Czech Republic include the split of total emissions in the contribution from emissions covered by the EU ETS and by the ESD in its next BR.

36. To assess the progress made towards the achievement of the 2020 target, the ERT noted that the Czech Republic's AEAs under the ESD (sectors not covered by the EU ETS) linearly increase from 62,474.35 kt CO_2 eq in 2013 to 67,654.45 kt CO_2 eq in 2020 (see para. 18 above). In 2013, the Czech Republic's annual total GHG emissions from the sectors not covered by the EU ETS (excluding emissions and removals from LULUCF and excluding indirect CO_2 emissions) were 3,044 kt CO_2 eq below the AEAs under the ESD. Based on these values, the Czech Republic's emissions currently do not exceed its AEAs. In addition, the AEAs not used in a particular year may be carried over to the next year. Under the EU ETS, it is expected that the market-based mechanisms will guarantee that the respective emissions will be reduced by 21 per cent by 2020 compared with the 2005 level.

3. Projections

37. The Czech Republic reported in CTF table 6(a) updated projections for 2020 and 2030 under the 'with measures' (WEM) scenario, while the BR2 contains projections for the years 2015, 2020, 2025, 2030 and 2035. Projections are presented on a sectoral basis and on a gas-by-gas basis for the following GHGs: CO_2, CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case). Projections are also provided in an aggregated format for each sector as well as for a Party total, using GWP values from the AR4. The Czech Republic reported on factors and activities influencing emissions for each sector. Further information on the projections is provided in chapter 5 of the BR2.

38. The Czech Republic's BR2 presents historical data from its 2014 inventory submission, corrected for the GWP values from the AR4. In contrast, CTF table 6 shows historical data from its 2015 inventory submission. In response to a question raised by the ERT during the review, the Czech Republic clarified that the data from the inventory submission in 2014 were used as the basis for the projections. To increase transparency, the ERT recommends that the Czech Republic present consistent data in the text of the BR and the CTF tables on its emission projections in its next submission.

39. Although emission projections related to fuel sold to ships and aircraft engaged in international transport were not included in the totals for the Czech Republic's emission projections, they were also not reported separately. In response to a question raised by the ERT during the review, the Czech Republic provided projections for international aviation and stated that there are no maritime bunkers. As the Czech Republic did not report this information transparently in its NC6/BR1 and did not report it at all in its BR2, the ERT reiterates the recommendation from its previous review report that the Czech Republic include emission projections related to fuel sold to ships and aircraft engaged in international transport in its next BR.

40. In addition to the WEM scenario, the Czech Republic reported in its BR2 and CTF table 6(b) the 'with additional measures' (WAM) scenario. The projections are presented by sector and by gas in the same way and for the same years as the WEM scenario. The Czech Republic provided information on the changes since the submission of its NC6/BR1 in the assumptions, methodologies, models and approaches used and on the key variables and assumptions used in the preparation of the projection scenarios using CTF table 5 (see chapter II.3(b) below). However, as in its NC6/BR1, the Czech Republic did not provide a 'without measures' (WOM) scenario in its BR2. To improve completeness, the ERT reiterates its encouragement to the Czech Republic to provide estimates for a WOM scenario in its next BR.

41. Sensitivity analyses were not presented in the Czech Republic's BR2. In response to a question raised by the ERT during the review, the Czech Republic provided information on updated sensitivity analyses conducted for the gas price and the prices of emission allowances (the dependency of the projections on GDP growth was not analysed because it had appeared to be of minor importance during previous sensitivity analyses). Lowering the gas price by 50 per cent compared with the reference value decreased the projected CO_2 emissions from combustion processes by 1.2 per cent in the period 2005–2030, whereas increasing the gas price by 50 per cent compared with the reference value increased the projected CO_2 emissions from combustion processes by 0.1 per cent in the period 2005–2030. On the other hand, lowering or increasing the price of emission allowances by 50 per cent compared with the reference value has minimal effect on the projected GHG emissions. To increase completeness, the ERT encourages the Czech Republic to report sensitivity analyses in its next BR.

42. As mentioned in paragraph 35 above, the Czech Republic provided additional information elaborating on the split of national emissions covered by the EU ETS and by the ESD. The provided information also included separate projections from 2015 to 2030 for the national emissions covered by the EU ETS and by the ESD. To increase transparency, the ERT suggests that the Czech Republic include this information in its next BR.

Overview of projection scenarios

43. The WEM scenario reported by the Czech Republic includes implemented and adopted policies and measures (PaMs) up to 1 January 2015 (in CTF table 3, PaMs included under the WEM scenario are marked with an asterisk). The Czech Republic also reported on a WAM scenario, which includes planned PaMs expected to be implemented or

adopted on or after 1 January 2015. For each sector, the BR2 lists these additional measures considered under the WAM scenario. These definitions indicate that the scenarios have been prepared according to the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications".

Methodology and changes since the previous submission

44. The methodology used in the BR2 is identical to that used for the preparation of the emission projections for the NC6/BR1. The Czech Republic included in its BR2 the detailed projections for various emission drivers, such as domestic coal mining, domestic consumption of primary energy sources and the nation's electricity generation infrastructure. In its BR2, the Czech Republic provided a comparison of emission projections presented in the NC6/BR1 and the BR2. In the NC6/BR1, total emissions were projected to decrease by 37.7 per cent between 1990 and 2020 under the WEM scenario, and by 38.4 per cent under the WAM scenario. In the BR2, total emissions are projected to decrease by 39.9 per cent between 1990 and 2020 under the WEM scenario, and by 42.7 per cent under the WAM scenario. The Czech Republic reported in its BR2 supporting information further explaining the changes made since the NC6/BR1. Accordingly, the major factors leading to the emission decreases in the Czech Republic's emission projections from its NC6/BR1 to its BR2 relate to: the methodological improvements in its GHG inventory; lower economic growth; lower availability of domestic hard and brown coal; and the postponement of the introduction of a new nuclear power plant to the period 2030–2035 instead of 2020–2025.

45. During the review, the Czech Republic provided more detailed information about the model (EFOM/ENV model) used to calculate the CO_2 emissions under the WEM scenario and how the model outputs (energy balances) are used to derive the projections for CH_4 and N_2O emissions. The Czech Republic further explained during the review that the WAM scenario is calculated by subtracting expected emission reductions of additional measures from the WEM scenario. To increase completeness, the ERT reiterates the encouragement made in the previous review report that the Czech Republic include such information on the methodology used for the preparation of the emission projections in its next BR.

46. To prepare its emission projections, the Czech Republic relied on the following key underlying assumptions: population trends, energy prices, economic development indicators and number of households. These variables and assumptions were reported in CTF table 5. The assumptions have been updated on the basis of the most recent economic developments known at the time of the reporting on emission projections. It is projected that the population will decrease by 2.6 per cent by 2030 compared with the 2012 level, while the number of households will increase by 5.3 per cent over the same time period. It is further projected that GDP will increase between 2.4 and 3.3 per cent per year between 2015 and 2030. Prices of oil, coal and gas are projected to increase significantly by 54.8 to 69.5 per cent between 2012 and 2030.

Results of projections

47. The total GHG emissions excluding emissions and removals from LULUCF in 2020 and 2030 are projected to be 119,558.39 and 104,661.49 kt CO_2 eq, respectively under the WEM scenario, which represents a decrease of 38.2 and 41.0 per cent, respectively, below

the 1990 level.[7] Under the WAM scenario, emissions in 2020 and 2030 are projected to be lower than those in 1990 by around 79,325.84 and 94,415.02 kt CO_2 eq, respectively.

48. The Czech Republic's target for the emissions from sectors covered by the ESD (non-ETS sectors) is to limit its emissions to 67,654.45 kt CO_2 eq by 2020 (see para. 18 above). According to the projections under the WEM scenario, emissions from non-ETS sectors are estimated to reach 59,990 kt CO_2 eq by 2020. Under the WAM scenario, emissions from non-ETS sectors in 2020 are projected to be 55,750 kt CO_2 eq. The ERT noted that this suggests that the Czech Republic expects to meet its target under the ESD under both the WEM and WAM scenarios.

49. According to the projections presented by sector (as defined in CTF table 6), the most significant GHG emission reductions under the WEM scenario from 1990 to 2020 will occur in the energy sector (71,978.42 kt CO_2 eq, or 48.0 per cent), followed by the agriculture sector (6,909.11 kt CO_2 eq, or 43.7 per cent) and the industrial processes and product use sector (4,718.26 kt CO_2 eq, or 27.7 per cent). Conversely, GHG emissions from the transport sector are projected to increase by 7,658.06 kt CO_2 eq (105.1 per cent) by 2020 compared with the 1990 level, and emissions from the waste sector are projected to increase by 2,150.04 kt CO_2 eq (66.8 per cent) over the same time period. When additional measures are considered (i.e. under the WAM scenario), more reductions are achieved in all relevant sectors. For the industrial processes and product use sector, no additional measures were considered. The energy sector remains the most prominent source of reductions, followed by the agriculture sector and the industrial processes and product use sector. The projected emission growth in the transport sector under the WAM scenario is slightly less prominent than under the WEM scenario (a 7,617.49 kt CO_2 eq, or 104.6 per cent, increase above the 1990 level by 2020).

50. The pattern of projected emissions reported for 2030 under the WEM scenario remains broadly the same, with reductions of 85,308.40 kt CO_2 eq (56.9 per cent) being projected for the energy sector, 6,447.67 kt CO_2 eq (40.8 per cent) for the agriculture sector and 5,651.21 kt CO_2 eq (33.1 per cent) for the industrial process and product use sector, compared with the 1990 levels. Over the same time period, emissions from the transport sector are projected to increase by 6,547.32 kt CO_2 eq (89.9 per cent) and emissions from the waste sector by 2,165.37 kt CO_2 eq (67.3 per cent). Under the WAM scenario, the respective decreases by 2030 relative to 1990 levels are projected to be 59.6 per cent for the energy sector, 46.9 per cent for the agriculture sector and 33.1 per cent for the industrial processes and product use sector. Over the same time period, emissions under the WAM scenario are projected to increase by 89.3 per cent for the transport sector and by 47.5 per cent for the waste sector.

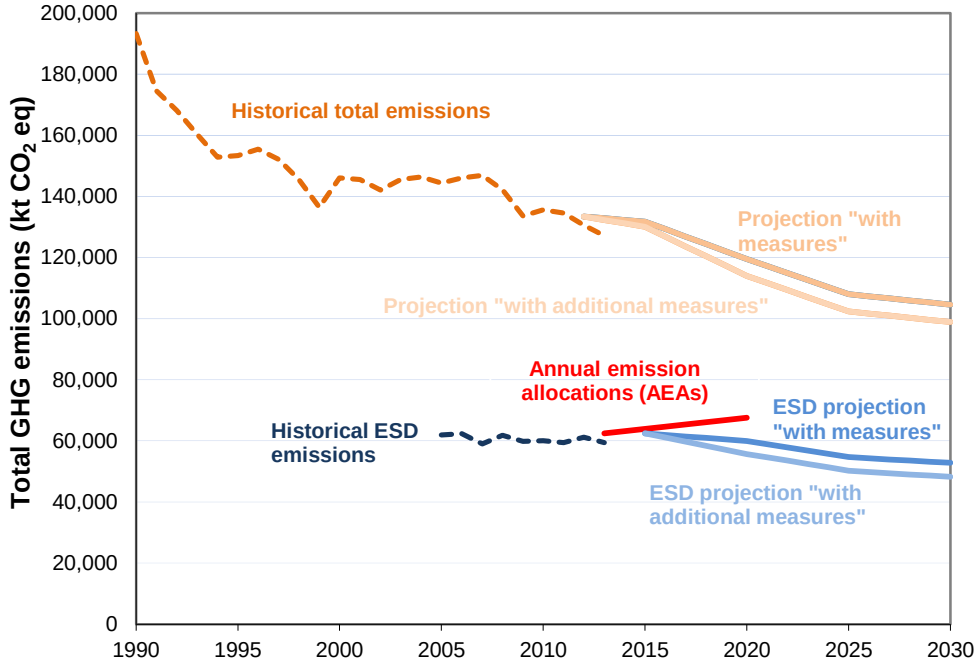
51. According to the projections reported for 2020 presented by gas, reductions in CO_2 emissions are expected to contribute the most to the Czech Republic's overall emission reductions. Under the WEM scenario, CO_2 emissions are projected to decrease by 64,188.99 kt CO_2 eq (39.7 per cent) between 1990 and 2020, CH_4 emissions by 8,407.79 kt CO_2 eq (39.9 per cent) and N_2O emissions by 3,193.31 kt CO_2 eq (30.2 per cent), respectively. Under the WAM scenario, CO_2 emission are projected to decrease by 68,692.77 kt CO_2 eq (42.5 per cent) between 1990 and 2020, CH_4 emissions by 9,116.28 kt CO_2 eq (43.3 per cent), and N_2O emissions by 3,509.19 kt CO_2 eq (33.2 per cent). From 1990 to 2030, CO_2 emissions are projected to decrease by 47.3 per cent under the WEM

[7] The percentages and absolute changes presented here and in the following paragraphs are relative to the historical data as presented in CTF table 6 (2015 inventory submission). However, the projections in the Czech Republic's BR2 were prepared relative to the historical data from its 2014 inventory submission, as presented in the tables of the main text of the Czech Republic's BR2 (see para. 38 above for more details).

scenario and by 49.8 per cent under the WAM scenario; CH_4 emissions are projected to decrease by 48.0 per cent under the WEM scenario and by 53.5 per cent under the WAM scenario; and N_2O emissions are projected to decrease by 30.6 per cent under the WEM scenario and by 35.6 under the WAM scenario.

52. The projected emission levels under the different scenarios and the Czech Republic's quantified economy-wide emission reduction target under the ESD (AEAs) are presented in the figure below.

Greenhouse gas emission projections by the Czech Republic



Sources: (1) Data for the years 1990–2013: the historical data correspond to the data of the Czech Republic's 2015 annual inventory submission, total GHG emissions excluding emissions and removals from LULUCF and excluding indirect CO_2 emissions; (2) Historical data for ESD emissions provided by the Czech Republic during the review (based on the 2015 inventory submission); (3) Projections data for total emissions, 2012–2030 (WEM and WAM scenarios): the Czech Republic's BR2; (4) Projections data for ESD emissions, 2015–2030 (WEM and WAM scenarios) provided by the Czech Republic during the review.

Note: The data for projections are consistent with the 2014 inventory submission and do not include indirect CO_2 emissions.

Abbreviations: AEAs = annual emission allocations, BR2 = second biennial report, ESD = effort-sharing decision, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, WAM = with additional measures, WEM = with measures.

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

53. The Czech Republic is not a Party included in Annex II to the Convention and is therefore not obliged to adopt measures and fulfil obligations as defined in Article 4, paragraphs 3, 4 and 5, of the Convention. However, as reported in its BR2, the Czech Republic provided information on its provision of support to developing country Parties. The ERT commends the Czech Republic for reporting this information and suggests that it to continue to do so in future biennial reports.

54. In its BR2, the Czech Republic reported information on the provision of financial support provided to developing countries in the years 2013 and 2014 through bilateral or multilateral channels that have been identified in accordance with the Organisation for Economic Co-operation and Development Development Assistance Committee methodology. Only projects with adaptation or mitigation Rio Markers have been considered as climate-specific funding. Other financial support provided to developing countries, which is also accountable for official development assistance, but where the exact climate-related component could not be quantified, has been reported as the core/general funding in the BR2 CTF tables. The Czech Republic has not contributed to any programme specifically aimed at capacity-building or technology transfer in developing countries. However, many Czech Republic bilateral projects also have capacity-building or technology transfer elements and these projects are reported as part of other projects in CTF table 7(b).

III. Conclusions

55. The ERT conducted a technical review of the information reported in the BR2 and the CTF tables of the Czech Republic in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the reported information is mostly in adherence with the UNFCCC reporting guidelines on BRs and provides an overview on: emissions and removals related to the Party's quantified economy-wide emission reduction target; assumptions, conditions and methodologies related to the attainment of the target; progress made by the Czech Republic in achieving its target; and the Czech Republic's provision of support to developing country Parties.

56. The Czech Republic's total GHG emissions excluding emissions and removals from LULUCF and excluding indirect CO_2 emissions related to its quantified economy-wide emission reduction target were estimated to be 34.2 per cent below its 1990 level, whereas total GHG emissions including net emissions and removals from LULUCF but excluding indirect CO_2 emissions are estimated to be 35.6 per cent below its 1990 level for 2013. The CO_2 emission decrease was driven by the transition to a market-driven economy. CH_4 emissions decreased mainly as a result of reduced coal mining and a decrease in livestock numbers. N_2O emission decreased because of a reduction in the use of mineral fertilizer and a decrease in livestock numbers, but also owing to new industrial technologies.

57. Under the Convention, the Czech Republic is committed to contributing to the achievement of the joint EU quantified economy-wide target of a 20 per cent reduction in emissions below the 1990 level by 2020. The target covers all sectors and the gases CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, expressed using GWP values from the AR4. Emissions and removals from the LULUCF sector are not included in the quantified economy-wide emission reduction target under the Convention. The EU generally allows its member States to use units from the Kyoto Protocol mechanism as well as new market mechanisms for compliance purposes, subject to a number of restrictions in terms of origin and type project and up to an established limit. Companies can make use of such units to fulfil their requirements under the EU ETS.

58. Under the ESD, the Czech Republic had a target to limit the emission growth to 9 per cent above the 2005 level by 2020. The Czech Republic's AEAs, which correspond to its national emission target for non-ETS sectors, change linearly from 62,474.35 kt CO_2 eq in 2013 to 67,654.45 kt CO_2 eq in 2020. Emissions and removals from LULUCF are not included under the ESD.

59. The Czech Republic's current main policy framework relating to energy and climate change is the National Programme to Abate the Climate Change Impacts in the Czech

Republic. The new policy framework entitled the Climate Change Protection Policy in the Czech Republic is planned to be adopted in early 2017. Key legislation supporting the Czech Republic's climate change goals includes the law on "Preferential feed-in tariffs for electricity produced from renewable energy sources" and the EU ETS. The mitigation effect of the former is the most significant, because this law is the principle measure for supporting the use of RES in power generation. Other policies that have delivered significant emission reductions are the Operational Programme Enterprise and Innovation for Competitiveness, the New Green Savings Programme, and the policy on Minimum Share of Biofuels.

60. For 2013, the Czech Republic reported in CTF table 4 total GHG emissions excluding emissions and removals from LULUCF and excluding indirect CO_2 emissions at 127,143.93 kt CO_2 eq, or 34.2 per cent below the 1990 level. While in its BR2 the Czech Republic stated that it does not currently intend to use units from market-based mechanisms under the ESD, the Party referred to the BR2 of the European Union regarding the use of units from market-based mechanisms under the EU ETS, which states that certified emission reductions and emission reduction units can be used for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. The Czech Republic also provided information regarding its emissions covered by the ESD (non-EU ETS emissions). Based on that information, the Czech Republic's annual total GHG emissions from the sectors not covered by the EU ETS were 3,044 kt CO_2 eq below the AEAs under the ESD for 2013. Therefore, the Czech Republic's emissions under the ESD are currently in compliance with the AEAs, and the AEAs not used in a particular year may be carried over to the next year. Under the EU ETS, it is expected that the market-based mechanisms will guarantee that the respective emissions will be reduced by 21 per cent by 2020 compared with the 2005 level.

61. The GHG emission projections provided by the Czech Republic in its BR2 include those for the WEM and WAM scenarios. Under these two scenarios, emissions are projected to be 38.2 and 41 per cent below the 1990 level in 2020, respectively. By 2020, emissions covered by the ESD are projected to reach 59,990 kt CO_2 eq under the WEM scenario and 55,750 kt CO_2 eq under the WAM scenario. On the basis of the reported information, the ERT concluded that the Czech Republic expects to meet its 2020 target for non-ETS sectors under the WEM and WAM scenarios.

62. The Czech Republic is not a Party included in Annex II to the Convention and is therefore not obliged to adopt measures and fulfil obligations as defined in Article 4, paragraph 3, 4 and 5, of the Convention. However, the Czech Republic provided, on a voluntary basis, available information on the provision of financial support to developing countries to implement the Convention. The Czech Republic has increased its contributions significantly since its NC6/BR1, and its public financial support in 2013 and 2014 totalled USD 6.70 million and 26.14 million per year, respectively. For these years, the Party's support provided for mitigation action was lower than support provided for adaptation. The highest level of financial support went to projects in energy and agriculture, followed by the water and sanitation sector.

63. In the course of the review, the ERT formulated the following recommendations for the Czech Republic to improve its adherence to the UNFCCC reporting guidelines on BRs in its next biennial report:[8]

(a) Improve the completeness of its reporting by:

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

(i) Providing 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 made towards its economy-wide emission reduction target (see para. 22 above);

(ii) Including emission projections related to fuel sold to ships and aircraft engaged in international transport (see para. 39 above);

(b) Improve the transparency of its reporting by:

(i) Removing the LULUCF sector PaMs from CTF table 3 (see para. 24 above);

(ii) Estimating the mitigation impacts of PaMs provided in CTF table 3 (see para. 23 above);

(iii) Consistently reporting on the exclusion of NF_3 from the quantified economy-wide emission reduction target (see para. 13 above);

(iv) Consistently reporting on the base year for each gas relevant for the quantified economy-wide emission reduction target (see para. 14 above);

(v) Providing consistent data for the projections of GHG emissions (see para. 38 above).

Annex

Documents and information used during the review

Reference documents

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

"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories". Annex I to decision 24/CP.19. Available at <http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf#page=2>.

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