



United Nations

FCCC/TRR.3/RUS



Framework Convention on
Climate Change

Distr.: General
27 February 2019

English only


Report on the technical review of the third biennial report of the Russian Federation

Developed country Parties were requested by decision 2/CP.17 to submit their third biennial report to the secretariat by 1 January 2018. This report presents the results of the technical review of the third biennial report of the Russian Federation, 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”.

GE.19-03123(E)



* 1 9 0 3 1 2 3 *

Please recycle 



Contents

| | <i>Paragraphs</i> | <i>Page</i> |
|--|-------------------|-------------|
| Abbreviations and acronyms | | 3 |
| I. Introduction and summary | 1–6 | 4 |
| A. Introduction | 1–3 | 4 |
| B. Summary..... | 4–6 | 4 |
| II. Technical review of the information reported in the third biennial report | 7–83 | 5 |
| A. Information on greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target | 7–10 | 5 |
| B. Quantified economy-wide emission reduction target and related assumptions, conditions and methodologies | 11–12 | 7 |
| C. Progress made towards the achievement of the quantified economy-wide emission reduction target | 13–72 | 7 |
| D. Provision of financial, technological and capacity-building support to developing country Parties..... | 73–83 | 25 |
| III. Conclusions and recommendations | 84–93 | 27 |
| Annex | | |
| Documents and information used during the review | | 30 |

Abbreviations and acronyms

| | |
|------------------------------------|---|
| Annex II Party | Party included in Annex II to the Convention |
| AR4 | Fourth Assessment Report of the Intergovernmental Panel on Climate Change |
| BR | biennial report |
| CH ₄ | methane |
| CO ₂ | carbon dioxide |
| CO ₂ eq | carbon dioxide equivalent |
| CTF | common tabular format |
| ERT | expert review team |
| GDP | gross domestic product |
| GEF | Global Environment Facility |
| GHG | greenhouse gas |
| HFC | hydrofluorocarbon |
| ICAO | International Civil Aviation Organization |
| IE | included elsewhere |
| IGCE | Institute of Global Climate and Ecology |
| IMO | International Maritime Organization |
| IPCC | Intergovernmental Panel on Climate Change |
| IPPU | industrial processes and product use |
| LULUCF | land use, land-use change and forestry |
| NA | not applicable |
| NC | national communication |
| NE | not estimated |
| NF ₃ | nitrogen trifluoride |
| NIR | national inventory report |
| NO | not occurring |
| N ₂ O | nitrous oxide |
| PaMs | policies and measures |
| PFC | perfluorocarbon |
| RES | renewable energy sources |
| Roshydromet | Federal Service for Hydrometeorology and Environmental Monitoring |
| RUB | Russian roubles |
| SF ₆ | sulfur hexafluoride |
| SIDS | small island developing States |
| UNDP | United Nations Development Programme |
| UNFCCC reporting guidelines on BRs | “UNFCCC biennial reporting guidelines for developed country Parties” |
| UNFCCC reporting guidelines on NCs | “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications” |
| WAM | ‘with additional measures’ |
| WEM | ‘with measures’ |
| WOM | ‘without measures’ |

I. Introduction and summary

A. Introduction

1. This is a report on the in-country technical review of the BR3¹ of the Russian Federation. The review was organized by the secretariat in accordance with the “Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”, particularly “Part IV: UNFCCC guidelines for the technical review of biennial reports from Parties included in Annex I to the Convention” (annex to decision 13/CP.20).

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

3. The review was conducted from 1 to 6 October 2018 in Moscow by the following team of nominated experts from the UNFCCC roster of experts: Mr. Matej Gasperic (Slovenia), Ms. Aiymgul Kerimray (Kazakhstan), Ms. Anna Sikharulidze (Georgia), Mr. Koen E. L. Smekens (Belgium) and Ms. Lilia Taranu (Republic of Moldova). Mr. Gasperic and Ms. Sikharulidze were the lead reviewers. The review was coordinated by Ms. Ruta Bubniene and Ms. Toby Hedger (UNFCCC secretariat).

B. Summary

4. The ERT conducted a technical review of the information reported in the BR3 of the Russian Federation in accordance with the UNFCCC reporting guidelines on BRs (annex I to decision 2/CP.17).

1. Timeliness

5. The BR3 was submitted on 29 December 2017, before the deadline of 1 January 2018 mandated by decision 2/CP.17. The CTF tables were submitted on 31 December 2017.

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

6. Issues and gaps identified by the ERT related to the reported information are presented in table 1. The information reported by the Russian Federation in its BR3 mostly adheres to the UNFCCC reporting guidelines on BRs.

Table 1

Summary of completeness and transparency of mandatory information reported by the Russian Federation in its third biennial report

| <i>Section of BR</i> | <i>Completeness</i> | <i>Transparency</i> | <i>Reference to description of recommendations</i> |
|--|---------------------|---------------------|--|
| GHG emissions and trends | Complete | Transparent | – |
| Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target | Complete | Transparent | – |

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

| <i>Section of BR</i> | <i>Completeness</i> | <i>Transparency</i> | <i>Reference to description of recommendations</i> |
|---|---------------------|---------------------|---|
| Progress in achievement of targets | Partially complete | Mostly transparent | Issues 1 and 3 in table 4; issue 1 in table 6; issues 1, 3, 4, 6 and 15–17 in table 9 |
| 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 below. The assessment of completeness and transparency by the ERT reflected in this table was based on only the “shall” reporting requirements of the UNFCCC reporting guidelines on BRs.

^a The Russian Federation is not an Annex II Party and is therefore not obliged to adopt measures and fulfil obligations defined in Article 4, paragraphs 3, 4 and 5, of the Convention.

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

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

1. Technical assessment of the reported information

7. Total GHG emissions² excluding emissions and removals from LULUCF decreased by 29.2 per cent between 1990 and 2016, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 48.4 per cent over the same period. Table 2 illustrates the emission trends by sector and by gas for the Russian Federation.

Table 2
Greenhouse gas emissions by sector and by gas for the Russian Federation for the period 1990–2015

| <i>Sector</i> | <i>GHG emissions (kt CO₂ eq)</i> | | | | | <i>Change (%)</i> | | <i>Share (%)</i> | |
|---|---|--------------|--------------|--------------|--------------|-------------------|------------------|------------------|-------------|
| | <i>1990</i> | <i>2000</i> | <i>2010</i> | <i>2015</i> | <i>2016</i> | <i>1990–2016</i> | <i>2015–2016</i> | <i>1990</i> | <i>2016</i> |
| | 1. Energy | 3 045 239.50 | 1 813 850.93 | 2 137 893.21 | 2 162 055.91 | 2 175 355.49 | –28.6 | 0.6 | 81.5 |
| A1. Energy industries | 1 171 194.98 | 842 615.26 | 878 937.43 | 820 625.09 | 808 954.74 | –30.9 | –1.4 | 31.4 | 30.6 |
| A2. Manufacturing industries and construction | 211 289.43 | 99 325.57 | 129 713.65 | 148 933.03 | 168 937.15 | –20.0 | 13.4 | 5.7 | 6.4 |
| A3. Transport | 320 237.89 | 174 136.93 | 229 571.43 | 257 125.40 | 256 126.34 | –20.0 | –0.4 | 8.6 | 9.7 |
| A4. and A5. Other | 584 155.15 | 189 467.06 | 174 379.34 | 196 831.84 | 183 766.97 | –68.5 | –6.6 | 15.6 | 7.0 |
| B. Fugitive emissions from fuels | 758 362.05 | 508 306.10 | 725 291.35 | 738 540.54 | 757 570.29 | –0.1 | 2.6 | 20.3 | 28.7 |
| C. CO ₂ transport and storage | NA, NO | NA, NO | NA, NO | NO | NO | – | – | – | – |
| 2. IPPU | 283 472.50 | 196 349.36 | 196 865.31 | 218 768.95 | 218 495.48 | –22.9 | –0.1 | 7.6 | 8.3 |
| 3. Agriculture | 324 475.93 | 155 564.05 | 140 195.80 | 135 797.12 | 134 175.62 | –58.6 | –1.2 | 8.7 | 5.1 |
| 4. LULUCF | 158 808.02 | –401 489.59 | –629 518.79 | –603 048.50 | –634 454.44 | –499.5 | 5.2 | – | – |
| 5. Waste | 81 156.84 | 83 307.53 | 98 230.21 | 113 255.49 | 115 790.31 | 42.7 | 2.2 | 2.2 | 4.4 |
| 6. Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | – | – | 0.0 | 0.0 |

² In this report, the term “total GHG emissions” refers to the aggregated national GHG emissions expressed in terms of CO₂ eq excluding LULUCF, unless otherwise specified. Values in this paragraph are calculated based on the 2018 annual submission, version 1.0.

| | GHG emissions (kt CO ₂ eq) | | | | | Change (%) | | Share (%) | |
|---|---------------------------------------|---------------------|---------------------|---------------------|---------------------|--------------|-------------|--------------|--------------|
| | 1990 | 2000 | 2010 | 2015 | 2016 | 1990–2016 | 2015–2016 | 1990 | 2016 |
| | <i>Gas^a</i> | | | | | | | | |
| CO ₂ | 2 571 210.65 | 1 499 616.21 | 1 657 560.68 | 1 671 895.08 | 1 668 069.93 | –35.1 | –0.2 | 68.9 | 63.1 |
| CH ₄ | 922 029.61 | 611 795.12 | 800 251.40 | 838 808.82 | 856 363.71 | –7.1 | 2.1 | 24.7 | 32.4 |
| N ₂ O | 188 671.01 | 100 303.72 | 97 294.02 | 92 170.37 | 91 042.80 | –51.7 | –1.2 | 5.1 | 3.4 |
| HFCs | 35 937.16 | 26 569.40 | 13 471.65 | 22 355.06 | 23 622.72 | –34.3 | 5.7 | 1.0 | 0.9 |
| PFCs | 15 105.81 | 9 867.31 | 3 619.67 | 3 507.27 | 3 657.44 | –75.8 | 4.3 | 0.4 | 0.1 |
| SF ₆ | 1 390.53 | 920.09 | 987.11 | 1 139.57 | 1 052.12 | –24.3 | –7.7 | 0.0 | 0.0 |
| NF ₃ | IE, NO | IE, NO | IE, NO | 1.30 | 8.17 | – | 530.4 | – | 0.0 |
| Total GHG emissions without LULUCF | 3 734 344.76 | 2 249 071.86 | 2 573 184.52 | 2 629 877.47 | 2 643 816.89 | –29.2 | 0.5 | 100.0 | 100.0 |
| Total GHG emissions with LULUCF | 3 893 152.78 | 1 847 582.27 | 1 943 665.74 | 2 026 828.96 | 2 009 362.46 | –48.4 | –0.9 | NA | NA |

Source: GHG emission data: the Russian Federation's 2018 annual submission, version 1.0. The data have not been reviewed by the ERT.

^a Emissions by gas without LULUCF and without indirect CO₂.

8. The decrease in total emissions was driven mainly by changes in the economic growth pattern of the country. Total GHG emissions sharply decreased during the period 1990–1998 owing to the economic crisis after the dissolution of the Soviet Union, and the economic reforms put in place and consequent restructure of the economy of the Russian Federation. After 1998, GHG emissions slowly but steadily increased, mainly as a result of increased fuel consumption and industrial production. This trend continued until 2012, except for a drop during 2009–2010 due to the worldwide economic recession. Since 2012, inter-annual fluctuations in GHG emissions have been observed, caused by unsteady GDP growth and consequent fluctuations in fuel consumption and industrial and agricultural production.

9. The Russian Federation established its national inventory arrangements in 2006 (by order no. 278-r) and some amendments were introduced to the structure and procedures for the functions of the national system in 2017 (by order no. 930-r23). As a result of the amendments, Roshydromet was tasked with ensuring the functioning of the national system for GHG inventories and agreement on the inventory with the relevant federal executive entities, and preparing submissions under the Convention and its Kyoto Protocol. Several entities (Federal Service for State Registration, Cadastre and Cartography; Federal Agency for Forestry; Federal Customs Service of Russia and Federal Agency for Water Resources) were included in the national system and the Ministry of Agriculture was excluded. Ministries and agencies that are not permanently involved in the national system may be called on by Roshydromet to provide necessary inputs while it prepares submissions. The national system also includes companies and private organizations, which participate according to agreements with Roshydromet. The new procedures require the Ministry of Natural Resources and Environment to review the inventory within 20 days of receiving it from Roshydromet. Some changes have been made to institutional arrangements since the BR2 (see para. 15 below).

2. Assessment of adherence to the reporting guidelines

10. The ERT assessed the information reported in the BR3 of the Russian Federation and recognized that the reporting is complete, transparent and adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

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

1. Technical assessment of the reported information

11. For the Russian Federation, the Convention entered into force on 28 March 1995. Under the Convention, the Russian Federation committed to reducing its GHG emissions by 25 per cent below the 1990 level (to a level not exceeding 75 per cent of the 1990 emission level) by 2020. The target includes all GHGs included 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”, namely CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃. It also includes all IPCC sources and sectors included in the annual GHG inventory, except LULUCF. The global warming potential values used are from the AR4. Emissions and removals from the LULUCF sector are not included in the target. The Russian Federation reported that it does not plan to make use of market-based mechanisms to achieve its target. In absolute terms this means that, under the Convention, the Russian Federation has to reduce its emissions from 3,734,344.76 kt CO₂ eq (in the base year, which is based on the common reporting format of 2018)³ to 2,800,758.57 kt CO₂ eq by 2020.

2. Assessment of adherence to the reporting guidelines

12. The ERT assessed the information reported in the BR3 of the Russian Federation and recognized that the reporting is complete, transparent and adhering to the UNFCCC reporting guidelines on BRs. No issues relating to the topics discussed in this chapter of the review report were raised during the review.

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

1. Mitigation actions and their effects

(a) Technical assessment of the reported information

13. The Russian Federation provided information on its package of PaMs implemented and adopted, by sector, indicating affected gases, in order to fulfil its commitments under the Convention. The Russian Federation reported on its policy context and legal and institutional arrangements put in place to implement its commitments and monitor and evaluate the effectiveness of its PaMs.

14. The Ministry of Economic Development is responsible for developing climate change policy, which is then approved by the President of the Russian Federation. The Ministry develops and implements action plans, which include mitigation PaMs, to implement the policy. The plans are approved by the Government of the Russian Federation. Federal ministries and other federal bodies develop sectoral strategies and action plans and monitor their implementation, providing information on this to the Ministry of Economic Development. Regional entities and private companies also develop and monitor action plans, on a voluntary basis. In all cases, the evaluation of PaMs has a qualitative rather than a quantitative nature and is used to broadly monitor overall implementation of the action plans.

15. The Russian Federation also provided information on changes made since the previous submission to its institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress made towards its target. The Ministry of Natural Resources and Environment monitors climate policy and progress towards the target by developing the national GHG inventory. Recent changes in the legislation on inventory arrangements include approval of the concept for developing a measurement, reporting and verification

³ The Russian Federation chose 1990 as the base year for its 2020 target. The emission level in the base year was calculated on the basis of the 2018 annual inventory submission.

system for GHG emissions (by order no. 716-r of 22 April 2015). The system will establish rules for voluntary GHG inventory preparation by Russian companies and regional entities, and provide methodological guidance. In addition, a plan for further improvement of the measurement, reporting and verification system that covers preparation for the ratification of the Paris Agreement (order no. 2344 of 3 November 2016) includes provisions for the development of a proposal for federal legislation on the regulation of GHG emissions.

16. The Russian Federation reported on its self-assessment of compliance with its emission reduction target and national rules for taking action against non-compliance. This process of self-assessment is carried out by the Government of the Russian Federation when it considers reports from the Ministry of Economic Development on the implementation of PaMs and reports from the Ministry of Natural Resources and Environment on the progress towards the target and implementation of the climate doctrine (Presidential Decree No. 861 of 19 December 2009). Federal bodies and regional entities submit information on the monitoring of and compliance with their individual action plans to these two ministries.

17. The key overarching cross-sectoral policy reported by the Russian Federation is its climate doctrine (Presidential Decree No. 861 of 19 December 2009), which provides the framework for existing climate policy and for the Russian Federation meeting its emission reduction target for 2020. The comprehensive plan for implementing the doctrine was developed and approved in 2014 (order no. 730 of 25 April 2011). The climate doctrine is currently under implementation. The action plan is supported by sectoral action plans and strategies, with the strategy for the energy sector being the most significant.

18. All PaMs reported by the Russian Federation are either implemented or ongoing. Table 3 provides a summary of the reported information on the PaMs of the Russian Federation.

Table 3

Summary of information on policies and measures reported by the Russian Federation

| <i>Sector</i> | <i>Key PaMs</i> | <i>Estimate of mitigation impact by 2020 (kt CO₂ eq)</i> | <i>Estimate of mitigation impact by 2030 (kt CO₂ eq)</i> |
|--|---|---|---|
| Policy framework and cross-sectoral measures | Climate doctrine of the Russian Federation (Presidential Decree No. 861 of 19 December 2009) | NE | NE |
| | Comprehensive plan for implementing the climate doctrine of the Russian Federation by 2020 (resolution no. 730 of 25 April 2011) | NE | NE |
| | Reducing GHG emissions by 2020 to a level not exceeding 75 per cent of the 1990 emission level (Presidential Decree No. 752 of 30 September 2013) | 942 000 | NE |
| | Action plan for achieving the target of a reduction in GHG emissions by 2020 to a level not exceeding 75 per cent of the 1990 emission level (resolution no. 504 of 2 April 2014) | NE | NE |
| | Plan for implementing a set of measures for improving the State regulation of GHG emissions (Decree No. 2344-P of 3 November 2016) | NE | NE |
| Energy | Energy strategy to 2030 and draft energy strategy to 2035 (Decree No. 1715-p of 13 November 2009) | 696.000 | NE |
| | State Programme for Development of Coal Mining Industry | NE | 83 800–167 500 |
| Energy efficiency | Energy Saving and Improving Energy Efficiency and Amending Certain Legislative Acts of the Russian Federation (Law No. 261-FZ of 23 November 2009) | NE | NE |
| | State programme Energy Efficiency and Energy Development (Decree No. 321 of 15 April 2014; updated in 2015, 2016 and 2017, with the latest change in Decree No. 375 of 31 March 2017) | NE | NE |

| <i>Sector</i> | <i>Key PaMs</i> | <i>Estimate of mitigation impact by 2020 (kt CO₂ eq)</i> | <i>Estimate of mitigation impact by 2030 (kt CO₂ eq)</i> |
|------------------|---|---|---|
| | Plan of measures for improving State regulation in the field of providing energy services (order no. 7803p-P9 of 20 November 2014) | NE | NE |
| | Corporate programmes in innovative development, energy efficiency and energy saving, accompanied by a reduction in GHG gas emissions (for Novatek, NK Rosneft and Transneft the estimate of mitigation impact is not estimated) | Gazprom (2012–2016): 60 100 LUKOIL (since 2011): 3 400 | NE |
| Renewable energy | Measures to stimulate the production of electricity by establishing facilities using renewable energy sources (approved by order no. 1839-p of 4 October 2012) | NE | NE |
| | Mechanism for stimulating the use of renewable energy sources in the wholesale electricity and capacity market (Decree No. 449 of 28 May 2013). Updated by Amendments to Certain Acts of the Government of the Russian Federation Regarding the Use of Renewable Energy Sources in the Wholesale Electricity and Power Market (Decree No. 1210 of 10 November 2015) | NE | NE |
| | Amending Certain Acts of the Government of the Russian Federation Concerning the Promotion of the Use of Renewable Energy Sources in Retail Electricity Markets (Decree No. 47 of 23 January 2015) | NE | NE |
| IPPU | Programme for the development of the Russian coal industry to 2030 (Decree No. 1099-r of 21 June 2014) | NE | NE |
| | Strategy for the development of ferrous metallurgy in Russia for the period 2014–2020 and the future to 2030 (order no. 839 of the Ministry of Industry and Trade of 5 May 2014) | NE | NE |
| | Strategy for the development of non-ferrous metallurgy in Russia for the period 2014–2020 and the future to 2030 (order no. 839 of the Ministry of Industry and Trade of 5 May 2014) | NE | NE |
| | Strategy for the development of the chemical and petrochemical industry of Russia to 2030 (order no. 651/172 of the Ministry of Industry and Trade and the Ministry of Energy of 8 April 2014) | NE | NE |
| Transport | Transport strategy of the Russian Federation to 2030 (order no. 1734-r of 22 November 2008; updated by Decree No. 1032-r of 11 June 2014) | NE | NE |
| | Federal target programme Development of the Transport System of Russia (2010–2020) | NE | NE |
| | State programme Expansion of the Use of Natural Gas as a Motor Fuel for Transport and Special-Purpose Vehicles for the period 2018–2022 | NE | NE |
| Agriculture | State programme Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Foodstuffs for 2013–2020 (approved by Decree No. 717 of 14 July 2012; updated by relevant resolutions in 2013–2017) | NE | NE |
| | Federal target programme Development of Land Reclamation of Agricultural Land in Russia for 2014–2020 (Decree No. 922 of 12 October 2013; updated by relevant resolutions in 2014–2017) | NE | NE |
| LULUCF | State policy for the use, protection and reproduction of forests by 2030 (order no. 1724 of 26 September 2013) | NE | NE |
| | State programme Development of Forestry for the period 2013–2020 (approved by resolution no. 318 of 15 April 2014; amended by resolution no. 319 of 31 March 2017) | NE | NE |

| <i>Sector</i> | <i>Key PaMs</i> | <i>Estimate of mitigation impact by 2020 (kt CO₂ eq)</i> | <i>Estimate of mitigation impact by 2030 (kt CO₂ eq)</i> |
|---------------|--|---|---|
| Waste | Amendments to the Federal Law on Production and Consumption Wastes (Law No. 458-FZ of 29 December 2014) | NE | NE |
| | Comprehensive Strategy for Municipal Solid Waste Management (order no. 298 of 14 August 2013) | NE | NE |
| | Requirements for Regional Waste Management Systems including Municipal Solid Waste Management (approved by resolution no. 197 of 16 March 2016) | NE | NE |
| | Federal target programme Development of the Water Management Industry of the Russian Federation in 2012–2020 (approved by resolution no. 350 of 19 April 2012) | NE | NE |

Note: The estimates of mitigation impact are estimates of emissions of CO₂ or CO₂ eq avoided in a given year as a result of the implementation of mitigation actions, unless otherwise specified.

(b) Policies and measures in the energy sector

19. **Energy supply.** The main policy document targeting energy supply is the Russian Federation's energy strategy to 2030 and draft energy strategy to 2035 (Decree No. 1715-p of 13 November 2009). The strategy aims to ensure sufficient energy supply for expected domestic fuel consumption and expected fuel exports. An assessment of the intermediate results of the implementation of the strategy shows an expected increase in energy consumption and related GHG emissions in the Russian Federation until 2030, depending on the phase of implementation (phase 1, phase 2 or phase 3). Despite a slight decrease in the share of solid fuel consumption in phase 1, from 17.6 per cent in 2005 to 16.7 per cent in 2030, overall domestic consumption in 2030 is expected to increase in phase 1 by 5.7–16.4 per cent compared with the 2005 level.

20. In the draft energy strategy to 2035, as provided by the Party during the review, domestic fuel consumption in 2035 is expected to increase by 2–3 per cent compared with the 2030 level and 13–16 per cent compared with the 2015 level. Owing to changes in the structure of fuels by 2030 where, according to the draft strategy, non-carbon fuels are to increase by 0.7–1.9 per cent (the shares of other fuels are expected to have minor changes), GHG emissions from energy consumption in 2030 are expected to increase 8.2–10.7 per cent in 2030 and 9.7–11.7 per cent in 2035 compared with the 2015 level. During the review, the Russian Federation explained that limitation and reduction of GHG emissions and removals is not the draft strategy's primary objective; however, the implementation of the draft strategy would provide GHG emission reductions as co-benefits.

21. **Renewable energy sources.** The Russian Federation is increasing renewable energy production, which is currently dominated by hydropower. Solar and wind power capacities are supported by a number of regulatory acts that allow renewable sources to start penetrating the electricity market. Law No. FZ-35 of 26 March 2003 on Electricity Production provides the legal basis for additional penetration of renewable energy through various support mechanisms, such as the sale of electric power under power supply contracts of qualified RES-based generating facilities or the obligation of grid companies to buy electricity from RES-based generating facilities with regulated tariffs for loss compensation. The law also provides for compensation of the cost of connecting to RES-based generating facilities.

22. During the review, the Russian Federation provided information regarding resolution no. 1472-r of 28 July 2015, which provides target capacity of RES implementation to 2024, marginal capital and operating costs, and target localization indicators to calculate the price of power for a single RES-based generating facility. The Party also provided information regarding Decree No. 449 of 28 May 2013, which regulates the terms of delivery of power to the wholesale market, the selection process for RES projects and the pricing system for RES power supply agreements. Both acts aim at creating economic incentives for the development of main and/or auxiliary equipment for RES-based electricity generation. Furthermore, the latest amendments to Law No. FZ-35 allow for penetration of

microgeneration in the retail power market and therefore facilitate private sector opportunities to sell surplus energy to the grid and allow for further expansion of RES.

23. By the end of 2015, the total installed capacity of renewable energy facilities reached 53.5 GW, or about 20 per cent of the total installed capacity in the Russian Federation (253 GW). By 2035, according to the draft energy strategy, the production of RES-based electricity should increase 14 times (from 2 to 29 billion kWh), and the installed capacity of the corresponding power plants should grow 23 times (from 0.4 to 9 GW). In the period 2013–2016, within the framework of competitive selection, 119 RES projects with a total capacity of more than 2 GW and a total value of more than RUB 300 billion were selected (wind power plants, 0.8 GW; solar power plants, 1.2 GW; and small hydrogeneration facilities, 0.07 GW). The Russian Federation became a member of the International Renewable Energy Agency in 2015.

24. **Energy efficiency.** Measures relating to energy efficiency are the most important mitigation actions as they generate social, economic (economy-wide), climate and environmental benefits. The main focus of the current legislative framework is energy and resource efficiency in the power sector, including the oil and gas production and processing industry. The State programme Energy Efficiency and Energy Development was approved by Decree No. 321 of 15 April 2014, and updated in 2015, 2016 and 2017, with the latest changes in Decree No. 375 of 31 March 2017. The programme aims at improving energy efficiency in and reducing environmental impacts by the energy sector. It has seven subprogrammes, which are focused on: saving energy; modernizing the power sector; developing RES; increasing energy efficiency; supplying the domestic market with reliable high-quality and economically feasible electricity and heat; developing the oil, gas and coal industries; and promoting innovative development of fuel and energy facilities. Seven target indicators were developed to measure the implementation of the subprogrammes; however, the level of implementation of the programme targets was not presented in the NC7 or BR3 and could not be clarified during the review.

25. Since 2015, regional energy efficiency programmes have been developed. These regional programmes are financed from regional budgets and through private investment.

26. The NC7 contains an assessment of the Russian Federation's economic potential in terms of energy efficiency measures across the power production and transmission and industrial sectors for a total emission reduction of 347,560 kt CO₂ eq, which is 12.4 per cent of the country's total emissions in 2015. However, in the BR3, the Party did not transparently indicate which of the energy efficiency measures were included in the assessment.

27. The ERT noted that the Russian Federation has strong corporate programmes in innovative development, energy efficiency and energy saving, accompanied by a reduction in GHG emissions. Corporations are obliged to prepare an annual inventory of GHG emissions in accordance with the guidelines issued by order no. 300 of the Ministry of Natural Resources and Environment of 30 June 2015 and to implement its Energy Saving and Energy Efficiency programmes. According to the BR3, Gazprom is planning to reduce its GHG emissions by 48,600 kt CO₂ eq by 2020 compared with the 2011 level, and in the period 2014–2016 already achieved a cumulative GHG emission reduction of 60,100 kt CO₂ eq.

28. **Residential and commercial sectors.** The ERT noted that the BR3 does not contain information regarding specific national policies targeting the residential and commercial sectors with the exception of Decree No. 275 of 7 March 2017 on introducing amendments to acts on the establishment of priority energy efficiency requirements for buildings and structures. The Russian Federation is implementing measures in cooperation with international organizations, such as the joint UNDP/GEF project Transformation of the Market to Promote Energy-Efficient Lighting in Russia. From 2012 to 2017, the programme comprised pilot projects on energy-efficient street illumination in cities in four regions of the Russian Federation (Sarov in Nizhny Novgorod; Sumerl in the Republic of Chuvashia; Dimitrovgrad in Ulyanovsk; and Suzdal, Kovrov and Gus-Khrustalny in Vladimir). Direct emission reductions resulting from the implementation of projects in the programme are expected to amount to 28,000 kt CO₂ eq to 2037.

29. The project Building Energy Efficiency in the North West of Russia is being implemented in cooperation with the GEF, UNDP and the European Bank for Reconstruction

and Development, with the Federal State Budgetary Agency–Russian Energy Agency of the Ministry of Energy acting as implementing agency. The aim of the project is to provide local capacity-building and demonstrate locally implemented energy-efficient and energy-saving technologies and solutions in the construction, overhaul and maintenance of buildings in the north-west of the country. The expected result is a GHG emission reduction of 96.5 kt CO₂ eq to 2037.

30. **Transport sector.** The strategic priority development areas related to climate change for the transport sector, such as a fuel switch in road transportation from gasoline and diesel to natural gas, an increase in energy efficiency in rail transportation and aviation, the introduction of electric vehicles in public transportation and private initiatives for electric vehicles, are prescribed in regulatory documents. The transport strategy of the Russian Federation to 2030 is the main overarching policy for the transport sector. Its main goals are to create conditions that will reduce the impact of transport on the environment and to ensure the compliance of the fuel production industry's operating activities with international environmental standards. It is expected that the share of the vehicle fleet with hybrid electric motors and engines using alternative types of fuel in 2020 will be 26–29 per cent and in 2030 will be 49–54 per cent.

31. In 2013, an order on regulating the use of gas motor fuel, including natural gas, was signed (order no. 767-r of 13 May 2013). According to the order, by 2020 at least half of the public transport in major Russian cities (those with a population of more than 1,000,000 people) should be converted to natural gas. The comprehensive plan of measures to expand the use of natural gas as a motor fuel, which is a draft of the State programme Expansion of the Use of Natural Gas as a Motor Fuel for Transport and Special-Purpose Vehicles for the period 2018–2022, has been prepared and sent to the Government of the Russian Federation. The goal of the programme is to reduce the negative impact of transport on the environment by stimulating the use of natural gas as a motor fuel. The programme comprises five subprogrammes, each covering a mode of transport: road, rail, sea and river, air, and special-purpose vehicles.

32. A comprehensive plan of measures to support the manufacture and use of environmentally friendly transport has been approved by the Government. The plan includes measures for creating mechanisms to stimulate the production and use of clean transport. According to the BR3, the constituent entities of the Russian Federation, as a result of these measures, put into service 9,100 buses and 9,700 utility vehicles fuelled by natural gas, 204 electric vehicles, 2,500 electric trolleybuses and 1,700 trams. Furthermore, in 2016, 44 automotive filling stations for compressed natural gas were put into operation with a view to building 78 more in 2017.

33. Corporate programmes (e.g. of Russian Railways and Aeroflot) accompanied by a reduction in GHG emissions are under implementation. In addition, the Ministry of Transport, in cooperation with UNDP, is implementing the project Reducing Greenhouse Gas Emissions from Road Transport in Russia's Medium-sized Cities. Kazan and Kaliningrad are demonstration projects for the development of low-carbon transport in a number of medium-sized cities in the Russian Federation and for the formulation of State policy, regulatory and legal frameworks and organizational links that will facilitate the replication of sustainable urban transport projects (in 2016, five cities were selected for project replication: Irkutsk, Krasnoyarsk, Penza, Rostov-on-Don and Tyumen). The expected emission reductions amount to 179.4 kt CO₂ eq by 2037.

34. The BR3 includes information on how the Russian Federation promotes and implements the decisions of ICAO and IMO to limit emissions from aviation and marine bunker fuels. In accordance with the requirements of ICAO, the Russian Federation has developed and approved an action plan for limiting GHG emissions from civil aviation, according to which CO₂ emissions from fuel combustion in aviation will be limited to 56 million tonnes by 2030, of which 35 million tonnes come from international aviation. In addition, the Party implements actions in relation to the energy efficiency coefficient of vessels, satisfying the requirements of IMO's Marine Environment Protection Committee.

35. **Industrial sector.** The Russian Federation reported in its BR3 several PaMs for selected industrial subsectors, such as the programme for the development of the Russian

coal industry to 2030, whose aims include creating new coal production centres and ensuring an average annual increase in the volume of coal reserves; the introduction of new and upgraded coal production capacities; and a decrease in the energy intensity of coal production and processing.

36. The strategy for the development of ferrous metallurgy in Russia for the period 2014–2020 and the future to 2030 was approved in 2014 (order no. 839 of the Ministry of Industry and Trade of 5 May 2014). It has the aims of stimulating demand for products from metallurgical enterprises, improving mining and metallurgical production, and decreasing the resource intensity of the production of metal products. The strategy for the development of non-ferrous metallurgy in Russia for the period 2014–2020 and the future to 2030 was approved by the same order and aims to ensure demand for non-ferrous metals and products and to implement effective resource-saving and environmentally friendly technologies.

37. The strategy for the development of the chemical and petrochemical industry of Russia to 2030 (approved by order no. 651/172 of the Ministry of Industry and Trade and the Ministry of Energy of 8 April 2014) aims to modernize existing capacities, to create new capacities based on progressive and best available technologies and to reduce the negative impacts of chemical and petrochemical production on the environment.

38. The strategy for the development of the building materials industry and industrial housing construction to 2020, the strategy for the development of the construction materials industry to 2020 with a perspective to 2030, and the draft strategy for the innovative development of the construction industry to 2030, among other strategies, aim for modernization and technological development in the industrial base of industrial housing construction; the formation of a high-technology, competitive, sustainable and balanced building materials industry; and the introduction of energy-efficient technologies for cement production.

(c) Policies and measures in other sectors

39. **IPPU.** PaMs regarding emissions from industrial processes are described under the industry and construction section in conjunction with PaMs addressing energy-related emissions. Process-related emissions are reduced through modernizing production (iron and steel, non-ferrous metallurgy and chemicals) and through implementing the best available technologies following Government order no. 2674-r (which defined the list of areas of application of best available technologies) in the non-ferrous metallurgy, chemical and petrochemical industries and the construction material industries. No specific measures were reported in the NC7 for fluorinated substitutes for ozone depleting substances and for emissions from other product manufacture and use.

40. **Agriculture.** National PaMs implemented in agriculture and land use mainly aim at adapting to climate change. No specific PaMs for mitigation of GHG emissions are reported to be in place at the national or local level in the agriculture sector, although some mitigation co-benefits could be achieved through implementing the adaptation measures. The Ministry of Agriculture is working on introducing slow-acting fertilizers with nitrification inhibitors and agro-technology that aims to reduce the use of mineral nitrogen fertilizers for crop production.

41. **LULUCF.** The forestry sector has great importance in the Russian Federation climate policy context owing to its planned significant share in the national economy and its planned contribution to the Party's 2030 target. The Federal Agency for Forestry developed the State programme Development of Forestry for the period 2013–2020, which was amended in 2017 taking into account the State policy framework for the use, protection and reproduction of forests in the Russian Federation to 2030. The main focus of the framework and programme is to create conditions that will increase the effectiveness of the protection, reproduction and rational multipurpose and sustainable use of forests while preserving their ecological functions and biological diversity. An increase in the effectiveness of forest management will contribute to an increase in the absorption of CO₂ from the atmosphere.

42. During the review, the Russian Federation provided information on forestry-related activities that decrease forest losses caused by fires, harmful organisms and illegal logging and that enhance the potential of forests to sequester GHGs, such as reducing wood losses

resulting from fires; reducing the influence of pests and diseases and other adverse impacts on forests, including illegal logging; extending forest areas through afforestation and forest regeneration; and increasing forest productivity through tending operations, including adapting forest vegetation to climate change.

43. Specific climate change mitigation and adaptation measures have been adopted in the sector, such as the Green Shield Law (Law No. 353, operational as of 1 January 2017). So far, 16 regions are establishing 'green shields' around regional centres, and a total of 1,500,000 ha of new and existing forests within settlements have been registered to serve as wind shields.

44. **Waste management.** The Russian Federation is in the process of reforming and upgrading its waste management system to be more environmentally friendly and resource-efficient. Law No. 89 on Waste Production and Consumption, as amended on 29 December 2014, and other legislation, such as Decree No. 284 of 9 April 2016 introducing the obligation to pay a recycling fee (introduced from 2017), provide the legal basis for the Party's transition to a new waste management system, which follows the waste management hierarchy of avoid, reduce, reuse, recycle, recover, treat and only then dispose.

45. Legislation in the Russian Federation is implemented in three stages. Regarding the new waste management system, in stage one, the legal basis was developed for recycling and reuse, for introducing fees and for establishing an extended producer responsibility mechanism and the Institute of Regional Operators for Solid Waste Management. In stage two, the prohibition of disposal of certain waste products containing useful materials was introduced together with an expanded list of recyclable goods. In addition, during this stage, regional schemes and programmes were approved and environmental fees that had been collected were redistributed to regional operators. During the review, the Russian Federation provided information on stage three, which started in 2018. In this stage, actions are foreseen to increase the separation of waste by the population, and a video monitoring system for municipal solid waste disposal in landfills is to be implemented. Recycling of glass, polyethylene terephthalate (PET plastic), composite materials, paper, tin containers, e-waste, lamps, furniture and tyres is currently in place; however, the separate collection and treatment of biodegradable waste is not foreseen.

46. Law No. 416-FZ on Water Supply and Sanitation, operational as of 1 January 2019, has been supplemented by a new chapter, "Regulation of wastewater discharge into centralized water disposal systems" and new concepts have been introduced: "local treatment plant or device"; "sewage disposal norms"; and "centralized system drainage of the settlement, urban district". The amendments will improve the operation of centralized treatment facilities and increase the amount of effluent that will be treated by them, and, ultimately, improve the quality of calculations of their GHG emissions.

(d) Response measures

47. The Russian Federation did not report on the assessment of the economic and social consequences of response measures. The Party explained that it has not yet undertaken an assessment of the economic and social consequences of response measures because there is no consensus on the methodological approach to such an assessment, taking into account national circumstances.

(e) Assessment of adherence to the reporting guidelines

48. The ERT assessed the information reported in the BR3 of the Russian Federation and identified an issue relating to completeness and adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 4.

Table 4

Findings on mitigation actions and their effects from the review of the third biennial report of the Russian Federation

| No. | <i>Reporting requirement, issue type and assessment</i> | <i>Description of the finding with recommendation or encouragement</i> |
|-----|--|---|
| 1 | <p>Reporting requirement specified in paragraph 7</p> <p>Issue type: transparency</p> <p>Assessment: encouragement</p> | <p>The BR3 includes information on how federal and regional legislation is monitored in the Russian Federation; however, few details on climate change related PaMs and corresponding institutional arrangements are included. The Party did not transparently report on the overall division of responsibilities among federal ministries and agencies and regional entities on climate change policymaking and monitoring, or on the indicators used to evaluate the implementation of PaMs and their effects.</p> <p>During the review, the Russian Federation explained that federal ministries monitor the PaMs implemented in the sectors under their responsibility and report to the Ministry of Economic Development, which has overall responsibility for monitoring the implementation of PaMs. When the regions have voluntary regional PaMs, they monitor them and report to the Ministry of Economic Development. Specific indicators related to each policy or measure are monitored; however, these may not be directly linked with GHG emissions. The impacts on emissions of individual PaMs are evaluated qualitatively rather than quantitatively.</p> <p>The ERT encourages the Russian Federation to include in its next BR a structured description of the legal and administrative framework for climate change related PaMs at the national, regional and local level, including the roles of national, regional and local government entities and the involvement of any other entities in the implementation of national, regional and local PaMs and the institutional arrangements for monitoring climate policy and related PaMs.</p> |
| 2 | <p>Reporting requirement specified in paragraph 8</p> <p>Issue type: completeness</p> <p>Assessment: encouragement</p> | <p>The Russian Federation did not report in the BR3 information on the assessment of the economic and social consequences of response measures.</p> <p>During the review, the Russian Federation explained that it has not yet undertaken an assessment of the economic and social consequences of response measures because there is no consensus on the methodological approach to such an assessment, taking into account national circumstances.</p> <p>The ERT encourages the Russian Federation to include in its next BR information on the assessment of the economic and social consequences of response measures.</p> |
| 3 | <p>Reporting requirement specified in CTF 3/ paragraph 6</p> <p>Issue type: transparency</p> <p>Assessment: recommendation</p> | <p>The Russian Federation did not report in CTF table 3 estimates of mitigation impacts of PaMs and mitigation actions it has implemented or plans to implement since the previous BR to achieve its economy-wide emission reduction target. The Party used the notation key “NE” in CTF table 3 without elaborating on the rationale for not estimating the impacts.</p> <p>During the review, the Russian Federation explained that a quantitative assessment of PaMs is not performed owing to the complexity of such an assessment, which is due to interlinkages among some PaMs and methodological challenges. The Party clarified that some indicators related to PaMs are monitored; however, there is no responsible agency or adopted methodology that would enable an assessment of the effects of PaMs using these indicators. Furthermore, the institutional challenges related to the preparation of projections could result in limited reporting of the expected effects of PaMs.</p> <p>The ERT recommends that the Russian Federation report in its next BR estimates of the effects of PaMs that it has implemented or plans to implement or clearly explain why this may not be possible due to its national circumstances.</p> |

| No. | Reporting requirement, issue type and assessment | Description of the finding with recommendation or encouragement |
|-----|--|---|
| 4 | Reporting requirement specified in paragraph 24 Issue type: transparency Assessment: encouragement | <p>The Russian Federation reported in the BR3 that the process of monitoring and self-assessment of compliance with its emission reduction commitments is carried out by the Government when it considers reports on the implementation of PaMs submitted by the Ministry of Natural Resources and Environment and the Ministry of Economic Development and reports on the implementation of other governmental plans contributing to climate change mitigation. However, it is not clear which institutions or entities submit the other governmental plans contributing to mitigation and how they are prepared.</p> <p>During the review, the Russian Federation explained that federal ministries monitor the PaMs implemented in the sectors under their responsibility and report on progress to the Ministry of Economic Development, which has overall responsibility for monitoring the implementation of PaMs. The Ministry of Natural Resources and Environment develops GHG inventories and monitors GHG emissions. The Government self-assesses compliance based on the reports and in the case of non-compliance, reconciles the corresponding action plans. When the regions have voluntary regional PaMs, they monitor them and report to the Ministry of Economic Development. Specific indicators related to each policy or measure are monitored; however, these may not be directly linked with GHG emissions. Regions and companies participate in this process on a voluntary basis and are not liable for any actions in the case of non-compliance.</p> <p>The ERT encourages the Russian Federation to include in its next BR, to the extent possible, the domestic arrangements established for the process of self-assessing compliance with its emission reduction commitments or with the level of emission reduction that is required by science.</p> |
| 5 | Reporting requirement specified in paragraph 24 Issue type: transparency Assessment: encouragement | <p>The Russian Federation reported that there are no national rules established for taking local action against domestic non-compliance with emission reduction targets. During the review, the Russian Federation acknowledged the reporting requirement and stated that such rules would be established in the future.</p> <p>The ERT encourages the Russian Federation to report, to the extent possible, on the progress made in the establishment of national rules for taking local action against domestic non-compliance with emission reduction targets.</p> |

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

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

(a) Technical assessment of the reported information

49. The Russian Federation reported in its BR3 and CTF tables 4, 4(a)I, 4(a)II and 4(b) that it does not intend to use units from market-based mechanisms under the Convention to achieve its target. In CTF table 4, the notation key “NA” is used to report on the intended use of units from market-based mechanisms. For 2014, the Russian Federation reported in CTF table 4 annual total GHG emissions excluding LULUCF of 2,645,819.28 kt CO₂ eq, which is 29.8 per cent below the 1990 level. For 2015, the Russian Federation reported in CTF table 4 annual total GHG emissions excluding LULUCF of 2,651,212.00 kt CO₂ eq, which is 29.6 per cent below the 1990 level.

50. Table 5 illustrates the Russian Federation’s total GHG emissions, the contribution of LULUCF and the use of units from market-based mechanisms to achieve its target.

Table 5

Summary of information on the use of units from market-based mechanisms and land use, land-use change and forestry by the Russian Federation to achieve its target

| <i>Year</i> | <i>Emissions excluding LULUCF (kt CO₂ eq)</i> | <i>Contribution of LULUCF (kt CO₂ eq)</i> | <i>Emissions including contribution of LULUCF (kt CO₂ eq)</i> | <i>Use of units from market- based mechanisms (kt CO₂ eq)</i> |
|------------------|--|--|--|--|
| 1990 (base year) | 3 767 791.97 | NA | NA | NA |
| 2010 | 2 601 179.78 | NA | NA | NA |
| 2011 | 2 663 993.78 | NA | NA | NA |
| 2012 | 2 699 651.88 | NA | NA | NA |
| 2013 | 2 640 843.69 | NA | NA | NA |
| 2014 | 2 645 819.28 | NA | NA | NA |
| 2015 | 2 651 212.00 | NA | NA | NA |

Sources: The Russian Federation's BR3 and CTF tables 4, 4(a)I, 4(a)II and 4(b).

51. In assessing the progress towards the achievement of the 2020 target, the ERT noted that the Russian Federation's emission reduction target under the Convention is 25.0 per cent below the 1990 level. In 2015, the Russian Federation's annual total GHG emissions excluding LULUCF were 29.6 per cent (–1,116,579.97 kt CO₂ eq) below the base-year level.

52. The ERT noted that the Russian Federation is making progress towards its emission reduction target by implementing actions that are delivering some emission reductions without using units from the market-based mechanisms under the Convention. On the basis of the results of the projections under the WEM scenario, the ERT could not conclude that the Party is making progress towards achieving its target under the Convention as it is not clear if the reported WEM scenario adheres to the definition in the UNFCCC reporting guidelines on NCs.

(b) Assessment of adherence to the reporting guidelines

53. The ERT assessed the information reported in the BR3 of the Russian Federation and identified an issue relating to transparency and adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 6.

Table 6

Findings on estimates of emission reductions and removals and the use of units from the market-based mechanisms and land use, land-use change and forestry from the review of the third biennial report of the Russian Federation

| <i>No.</i> | <i>Reporting requirement, issue type and assessment</i> | <i>Description of the finding with recommendation or encouragement</i> |
|------------|---|--|
| 1 | Reporting requirement specified in/CTF table 4(a)II paragraph 9 Issue type: transparency Assessment: recommendation | The Russian Federation reported in the BR3 that contributions from LULUCF are excluded from its 2020 target. However, the Party reported in CTF table 4(a)II information on mitigation actions relevant to the calculation of emissions and removals from LULUCF in relation to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. During the review, in response to a question raised by the ERT, the Russian Federation confirmed that the LULUCF sector is not included in the quantified economy-wide emission reduction target. The Party explained that the reason for including data for the mitigation actions relevant to the calculation of emissions and removals from LULUCF in CTF table 4(a)II is to provide in the CTF a complete data set. The ERT reiterates the recommendation made in the previous review report that the Russian Federation improve the transparency of its reporting on progress towards its target by clearly distinguishing between the information on mitigation actions which |

| No. | <i>Reporting requirement, issue type and assessment</i> | <i>Description of the finding with recommendation or encouragement</i> |
|-----|---|--|
| | | pertain to its target and the information that does not. The Party may wish to include in its next BR this information in a footnote to CTF table 4(a) II. |

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

3. Projections

(a) Projections overview, methodology and results

(i) *Technical assessment of the reported information*

54. The Russian Federation reported updated projections for 2020 and 2030 relative to actual inventory data for 2014 under a WEM scenario. This information was not reported in the BR2. For the WEM scenario, national total GHG emissions are reported excluding and including the LULUCF sector.

55. In addition to the WEM scenario, the Russian Federation reported the WAM and WOM scenarios. National total GHG emissions for the WAM scenario are reported excluding and including the LULUCF sector. The WOM scenario from 2008 to 2030 is based on extrapolation of the average emission trend over the period 1998–2007. The ERT noted that this is a valid approach and is in accordance with the UNFCCC reporting guidelines on NCs; however, it should be taken into account that parameters such as average GDP growth, the energy mix and the mix of technologies used, and status from the period 1998–2007 are also extrapolated.

56. The projections are presented on a sectoral basis, using the same sectoral categories as those used in the reporting on mitigation actions, but only for the energy sector (for the WEM and WAM scenarios) and the IPPU sector (for the WEM scenario), and not on a gas-by-gas basis for CO₂, CH₄, N₂O, PFCs, HFCs and SF₆ (treating PFCs and HFCs collectively in each case). The projections are provided in an aggregated format for the energy and IPPU sectors as well as for a Party total using global warming potential values from the AR4.

(ii) *Methodology, assumptions and changes since the previous submission*

57. The methodology used for the preparation of the projections is different from that used for the preparation of the emission projections for the BR2. The Russian Federation did not report supporting information further explaining the methodologies and the changes made since the BR2. During the review, in response to a question raised by the ERT, the Party presented some information on the institutional procedures and methodologies used for the projections in the BR3, namely that an updated modelling study and updated sectoral assumptions for industry, agriculture and waste have been developed and form the basis for the information on projections reported in the BR3.

58. The methodology was outlined as follows. On the basis of updated macroeconomic information (GDP, fuel price forecasts) provided by the Ministry of Economic Development, the Ministry of Energy updates its own long-term energy strategy. This strategy is sent to the Ministry of Economic Development for evaluation. Together with the Ministry of Economic Development's assumptions for LULUCF, this information is sent to the Center for Energy Efficiency, where a modelling study is performed. Based on the outcome of the study, two scenarios for energy and apparently also two for LULUCF (based on the observed difference between the reported totals including and excluding LULUCF in CTF table 6) are selected by the Ministry of Economic Development and combined with its assumptions for transport, agriculture and waste and with updated information on long-term forecasts for industry from the Ministry of Industry and Trade. The WEM and WAM scenarios reported in the NC7/BR3 were thus determined.

59. IGCE compiled the information received from the Ministry of Economic Development in the projections chapter of the draft NC7/BR3. This draft was sent to all

ministries for review and they returned their comments to IGCE. IGCE then produced the final draft of the projections for the BR3, which it sent to Roshydromet. Roshydromet was responsible for submitting the finalized BR3 to the UNFCCC.

60. From the information reported in the BR3 and provided during the review in response to a question raised by the ERT, the ERT could not conclude whether the model used for the energy projections substantiates GHG emission projections for the energy sector. The BR3 does not include information on the type of model, the assumptions used, the limitations of the model and other key modelling parameters (in accordance with para. 43 of the UNFCCC reporting guidelines on NCs), or which PaMs listed in the PaMs section are included in the WEM and WAM scenarios for the energy sector (in accordance with paras. 43–53 of the UNFCCC reporting guidelines on NCs).

61. For the IPPU sector, the Russian Federation reported in the NC7/BR3 that the projections were based solely on the extrapolation of emission trends in the major industries. These industries together account for 94.7 per cent of the total emissions from the IPPU sector and the trends are considered to be valid for the whole sector. The ERT noted, however, that for several industry subsectors, as listed in table V.4 of the BR3, the projected emissions first show a decrease between 2014 and 2020, followed by an increase between 2020 and 2030. During the review, the Party could not clarify the reason for this inconsistency in GHG emission trends.

62. The BR3 contains a description of four scenarios for the LULUCF sector; however, a description of the relationship between these scenarios and the reported WEM and WAM scenarios, which also include LULUCF, was not included. For the agriculture and waste sectors, the BR3 does not contain any information, including a description of the assumptions used for projections.

63. To prepare its projections, the Russian Federation relied on the key underlying assumption of GDP growth rate. This assumption was reported in CTF table 5. The assumption was updated on the basis of the most recent economic developments known at the time of the preparation of the projections. The ERT noted, however, that information on this assumption in the submission is inconsistent: in table V.1 of the BR3, GDP growth rates are provided for two scenarios, only to 2020; and in CTF table 5, a single set of GDP growth rates is provided, to 2030, which are different from those in table V.1 of the BR3.

64. The ERT noted that the Russian Federation provided GDP energy intensities of the WEM and WAM scenarios for the period 2020–2030 in CTF table 5. The ERT is of the opinion that such scenario outcomes should not be reported in CTF table 5 but may be used for a scenario analysis or a quantitative assessment to be described in the NC/BR.

(iii) *Results of projections*

65. The projected emission levels under different scenarios and information on the quantified economy-wide emission reduction target are presented in table 7 and the figure below.

Table 7

Summary of greenhouse gas emission projections for the Russian Federation

| | <i>GHG emissions (kt CO₂ eq per year)</i> | <i>Changes in relation to 1990 level (%)</i> |
|---|--|--|
| Quantified economy-wide emission reduction target under the Convention (base year 1990) | 3 767 791.96 | NA |
| Inventory data 1990 ^a | 3 767 792.02 | NA |
| Inventory data 2015 ^a | 2 651 211.99 | –29.6 |
| WOM projections for 2020 ^b | 3 084 700.00 | –18.1 |
| WEM projections for 2020 ^b | 2 743 000.00 | –27.2 |

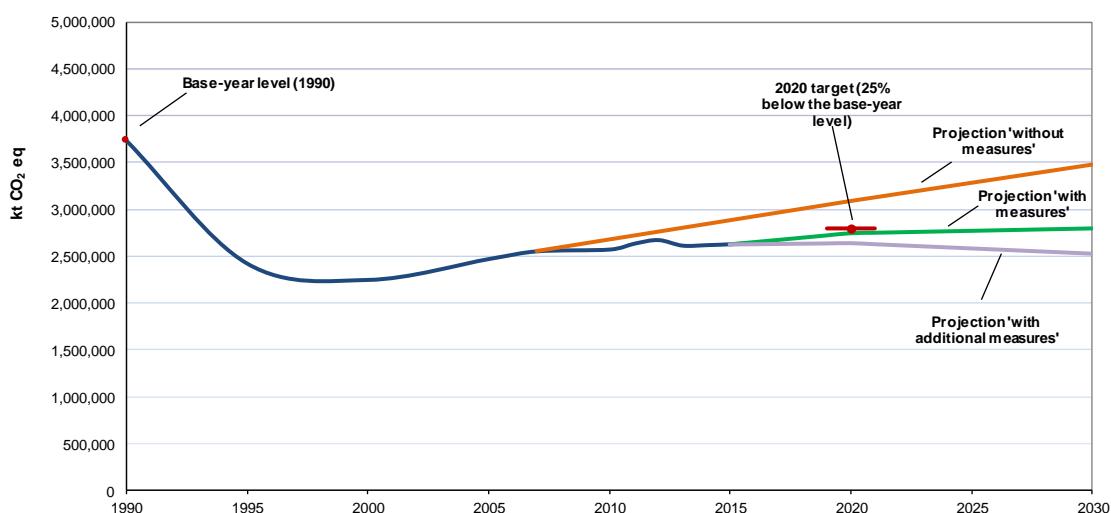
| | GHG emissions (kt CO ₂ eq per year) | Changes in relation to 1990 level (%) |
|---|---|--|
| WEM projections with LULUCF for 2020 ^b | 2 381 600.00 | -39.4 |
| WAM projections for 2020 ^b | 2 645 000.00 | -29.8 |
| WOM projections for 2030 ^b | 3 470 900.00 | -7.9 |
| WEM projections for 2030 ^b | 2 791 900.00 | -25.9 |
| WEM projections with LULUCF for 2030 ^b | 2 479 900.00 | -36.9 |
| WAM projections for 2030 ^b | 2 528 200.00 | -32.9 |

Note: The projections are for GHG emissions without LULUCF, unless otherwise specified.

^a From the Russian Federation’s BR3 CTF table 6.

^b From the Russian Federation’s BR3.

Greenhouse gas emission projections reported by the Russian Federation



Sources: (1) data for 1990–2016: the Russian Federation’s 2018 annual inventory submission, version 1.0; total GHG emissions excluding LULUCF; (2) data for 2016–2030: the Russian Federation’s NC7 and BR3 CTF table 6; total GHG emissions excluding LULUCF.

66. The Russian Federation’s total GHG emissions excluding LULUCF are projected to be 2,743,000 and 2,791,900 kt CO₂ eq in 2020 and 2030, respectively, under the WEM scenario, which is a decrease of 26.5 and 25.2 per cent, respectively, below the 1990 level (based on the NIR 2018). Under the WAM scenario, emissions in 2020 and 2030, amounting to around 2,645,000 and 2,528,200 kt CO₂ eq, respectively, are projected to be lower than those in 1990 by 29.2 and 32.3 per cent, respectively.

67. The 2020 projections suggest that the Russian Federation can be expected to achieve its 2020 target under the Convention (see para. 52 above). However, because it is not clear from the reported information on the scenario definitions of the WEM and WAM scenarios whether they adhere to the UNFCCC reporting guidelines on NCs, the ERT could not make a final assessment of the likelihood of the Party achieving its target in 2020.

68. The Russian Federation presented the WEM and WAM scenarios by sector for 2020 and 2030, as summarized in table 8.

Table 8
Summary of greenhouse gas emission projections for the Russian Federation presented by sector

| Sector | GHG emissions and removals (kt CO ₂ eq) | | | | | Change (%) | | | |
|---|--|---------------------|---------------------|---------------------|---------------------|--------------|--------------|--------------|--------------|
| | 1990 | 2020 | | 2030 | | 1990–2020 | | 1990–2030 | |
| | | WEM | WAM | WEM | WAM | WEM | WAM | WEM | WAM |
| Energy (including transport) | 3 077 197.95 | 2 209 40.00 | 2 144 800.00 | 2 277 100.00 | 2 018 600.00 | –28.2 | –30.3 | –26.0 | –34.4 |
| Transport | NE | NE | NE | NE | NE | NA | NA | NA | NA |
| Industry/ industrial processes | 298 475.12 | 225 900.00 | NE | 238 200.00 | NE | –24.3 | NA | –20.2 | NA |
| Agriculture | 315 383.17 | NE | NE | NE | NE | NA | NA | NA | NA |
| LULUCF ^a | 162 250.90 | –364 000.00 | –385 200.00 | –312 000.00 | –323 400.00 | –322.7 | –337.4 | –292.3 | –299.3 |
| Waste | 76 735.72 | NE | NE | NE | NE | NA | NA | NA | NA |
| Other (specify) | | | | | | NA | NA | NA | NA |
| Total GHG emissions without LULUCF | 3 767 791.96 | 2 743 000.00 | 2 645 000.00 | 2 791 900.00 | 2 528 200.00 | –27.2 | –29.8 | –25.9 | –32.9 |

Source: The Russian Federation's BR3 CTF table 6.

^a Emissions and removals for LULUCF were estimated by the ERT based on the data reported in the NC7 and BR3 for the WEM and WAM scenarios.

69. As the Russian Federation provided only partial projections by sector, an assessment of the expected effects of PaMs could be made only for the energy and IPPU sectors under the WEM scenario. Emission projections for transport (not included in energy), agriculture, waste and LULUCF were not reported separately. In 2020, emissions from the energy sector are expected to be 867,797.95 kt CO₂ eq (or 28.2 per cent) below the 1990 level and 14,933.07 kt CO₂ eq (0.7 per cent) above the 2015 level. In 2030, projected energy emissions amount to 2,277,100 kt CO₂ eq, which is 800,097.95 kt CO₂ eq (26.0 per cent) below the 1990 level. Compared with 2020, projected emissions from energy in 2030 are 67,700.00 kt CO₂ eq (3.1 per cent) higher. In 2020, emissions from the IPPU sector are expected to decrease by 72,575.12 kt CO₂ eq (24.3 per cent) compared with the 1990 level to 225,900.00 kt CO₂ eq. Compared with the 2015 level, projected emissions for 2020 are 15,919.45 kt CO₂ eq (7.6 per cent) higher. In 2030, emissions from IPPU are expected to decrease by 60,275.10 kt CO₂ eq (20.2 per cent) compared with the 1990 level to 238,200.00 kt CO₂ eq. Compared with the 2020 level, projected emissions for 2030 are 12,300.00 kt CO₂ eq (5.4 per cent) higher.

70. If additional measures are considered (i.e. under the WAM scenario), the patterns of emission reductions by 2020, which are presented only for the energy sector, show a further reduction compared with the WEM scenario. In 2020, emissions from energy under the WAM scenario are expected to amount to 2,144,800 kt CO₂ eq, or 932,397.95 kt CO₂ eq (30.3 per cent) below the 1990 level. In 2030, emissions from energy are expected to amount to 2,018,600 kt CO₂ eq, or 1,058,597.95 kt CO₂ eq (34.4 per cent) below the 1990 level. Compared with 2020, projected emissions from energy in 2030 are 126,200.00 kt CO₂ eq (5.9 per cent) lower. Emission projections for transport (not included in energy), industry, agriculture, waste and LULUCF were not reported separately.

71. When comparing the reported national projections with the projections for the energy and IPPU sectors under the WEM scenario, the ERT determined that the combined projected emissions for these two sectors account for a rather stable share of 90 per cent of national GHG emissions, excluding LULUCF. This implies the share of projected emissions from the

agriculture and waste sectors under the WEM scenario would also remain rather constant. However, the NC/BR does not contain information to confirm this assumption.

(b) Assessment of adherence to the reporting guidelines

72. The ERT assessed the information reported in the BR3 of the Russian Federation and identified issues relating to completeness, transparency and adherence to the UNFCCC reporting guidelines on BRs. The findings are described in table 9.

Table 9

Findings on greenhouse gas emission projections reported in the third biennial report of the Russian Federation

| No. | <i>Reporting requirement, issue type and assessment</i> | <i>Description of the finding with recommendation or encouragement</i> |
|-----|--|---|
| 1 | <p>Reporting requirement specified in paragraph 29</p> <p>Issue type: transparency</p> <p>Assessment: recommendation</p> | <p>The Russian Federation did not report transparently in the BR3 on whether the reported WEM and WAM scenarios are consistent with the definitions of these scenarios in the UNFCCC reporting guidelines on NCs. The Party provided a definition of its WEM scenario in the BR3, reporting that it includes policies for increasing energy efficiency, developing nuclear power generation, developing non-traditional energy sources and modernizing industrial installations. However, it is not clear from this description whether the WEM scenario is consistent with that in the guidelines (para. 29) and whether it encompasses currently implemented and adopted PaMs. For the WAM scenario, the Party reported in the BR3 that it includes the effects of energy efficiency improvement measures, which include applying best available technologies and implementing national energy strategies. However, it is not clear from the description whether the WAM scenario is consistent with that in the UNFCCC reporting guidelines on NCs and whether it encompasses planned PaMs in addition to those included in the WEM scenario.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing these scenarios. The Party was not able to provide further information in response to the question raised by the ERT on this matter. The ERT also noted that the Party faces challenges in adhering to the UNFCCC reporting guidelines on NCs regarding emission projections. These challenges might be due to the lack of coherence and institutionalization related to developing the projections given that various ministries, agencies and institutions are involved. Strengthening the institutional set-up could improve the reporting.</p> <p>The ERT reiterates the recommendation made in the previous review report that the Russian Federation transparently report in its next BR on whether its WEM scenario, and WAM scenario when reported, is defined in accordance with the definition in the UNFCCC reporting guidelines on NCs.</p> |
| 2 | <p>Reporting requirement specified in paragraph 30</p> <p>Issue type: completeness</p> <p>Assessment: encouragement</p> | <p>The Russian Federation did not report on any sensitivity analysis of its projections in the BR3.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing a sensitivity analysis. The Party was not able to provide further information in response to the question raised by the ERT on this matter.</p> <p>The ERT reiterates the encouragement made in the previous review report for the Russian Federation to include in its next BR a sensitivity analysis of its projections.</p> |
| 3 | <p>Reporting requirement specified in paragraph 34</p> <p>Issue type: completeness</p> <p>Assessment: recommendation</p> | <p>The Russian Federation reported sectoral projections for only two sectors (energy (WEM and WAM) and IPPU (WEM)) in the BR3 and CTF table 6a. It did not report sectoral projections for transport (not included in energy), waste, LULUCF and agriculture.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing sectoral projections. In response to the question raised by the ERT on this matter, the Party stated that the underlying studies and reports allowing emission projections to be reported on a sectoral basis are available.</p> |

| No. | Reporting requirement, issue type and assessment | Description of the finding with recommendation or encouragement |
|-----|---|--|
| 4 | Reporting requirement specified in paragraph 35 Issue type: completeness Assessment: recommendation | <p>The ERT reiterates the recommendation made in the previous review report that the Russian Federation report in its next BR emission projections for the WEM scenario, and WAM and WOM scenarios when reported, on a sectoral basis.</p> <p>The Russian Federation did not report projections on a gas-by-gas basis in the BR3 and BR CTF table 6a for CO₂, CH₄, N₂O, PFCs, HFCs and SF₆ (treating PFCs and HFCs collectively in each case).</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing projections by gas. In response to the question raised by the ERT on this matter, the Party stated that the required information to report emission projections by gas is in principle available from underlying studies and reports.</p> <p>The ERT reiterates the recommendation made in the previous review report that the Russian Federation report in its next BR emission projections for the WEM scenario, and WAM and WOM scenarios when reported, on a gas-by-gas basis.</p> |
| 5 | Reporting requirement specified in paragraph 35 Issue type: completeness Assessment: encouragement | <p>The Russian Federation did not report projections of indirect GHGs, such as carbon monoxide, nitrogen oxides, non-methane volatile organic compounds or sulfur oxides.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing these projections. The Party was not able to provide further information in response to the question raised by the ERT on this matter.</p> <p>The ERT encourages the Russian Federation to include in its next BR projections of indirect GHGs.</p> |
| 6 | Reporting requirement specified in paragraph 36 Issue type: completeness Assessment: recommendation | <p>The Russian Federation did not report on emission projections related to fuel sold to ships and aircraft engaged in international transport separately and not included in the national total in the BR3.</p> <p>During the review, in response to a question raised by the ERT, the Russian Federation clarified that such projections are currently being developed by the Ministry of Transport and might be available by the end of 2018. In addition, the Party provided a document from the State Scientific Research Institute of Civil Aviation with projection scenarios for the aviation sector, both as a total and with international aviation treated separately. The document provided underlying assumptions to 2030, such as tonne-kilometres per year, specific energy consumption per tonne-kilometre, and derived fuel consumption and CO₂ emissions. The reported CO₂ emission projections from international aviation are projected to increase from 15,000 kt in 2014 to 27,000 kt in 2030 (80 per cent). The ERT noted, however, that the emission data for international aviation reported for 2006, 2010 and 2014 in the document are not consistent with the GHG emissions from international aviation reported in the 2018 annual submission – the GHG emissions reported in the document for these years are significantly higher for international aviation and for total emissions from aviation (14 to 49 per cent).</p> <p>The ERT reiterates the recommendation made in the previous review report that the Russian Federation include in its next BR, to the extent possible, emission projections related to fuel sold to ships and aircraft engaged in international transport separately and not included in the national total. The ERT also recommends that the Russian Federation ensure consistency of the reported emission data with the national GHG emission inventory, and clarify if and how the reported emission projections from fuel sold to ships and aircraft engaged in international transport are reflected within the WEM scenario, and the WOM and WAM scenarios when reported.</p> |
| 7 | Reporting requirement specified in paragraph 37 Issue type: completeness | <p>The Russian Federation reported projections in tabular format for 2020 and 2030 for the national totals and for the energy (WEM and WAM scenarios) and IPPU (WEM scenario) sectors in CTF table 6. However, the Party did not report projections for other sectors in tabular format in CTF table 6.</p> |

| No. | <i>Reporting requirement, issue type and assessment</i> | <i>Description of the finding with recommendation or encouragement</i> |
|-----|--|---|
| | Assessment: encouragement | <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in developing GHG emissions scenarios for sectors other than energy and IPPU. In response to the question raised by the ERT on this matter, the Party was not able to provide this information in tabular format, although it indicated that the relevant underlying information is available.</p> <p>The ERT encourages the Russian Federation to include in its next BR emission projections in tabular format for each sector for each reported scenario.</p> |
| 8 | Reporting requirement specified in paragraph 42 Issue type: transparency Assessment: encouragement | <p>The Russian Federation reported the total effect of PaMs under the WEM and WAM scenarios as being the difference between the WOM scenario and these scenarios in 2020 and 2030. However, the definition of the WOM scenario is not consistent with that used for the WEM and WAM scenarios; therefore, these scenarios not comparable.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in estimating the total effect of PaMs following the UNFCCC reporting guidelines on NCs. The Party was not able to provide further information in response to the question raised by the ERT on this matter.</p> <p>The ERT encourages the Russian Federation to report transparently in its next BR on the methodology applied to estimate the total effect of PaMs under its reported scenarios, which should adhere to the WEM scenario definition given in the UNFCCC reporting guidelines on NCs.</p> |
| 9 | Reporting requirement specified in paragraph 43 Issue type: completeness Assessment: encouragement | <p>The Russian Federation did not report in the BR3 on the key characteristics of the models and methodologies applied, as listed in the UNFCCC reporting guidelines on NCs (para. 43), such as a description of the type of model or approach used and its characteristics; a description of the original purpose for which the model or approach was designed and how it has been modified for climate change purposes; or an explanation of how the model or approach used accounts for any overlap or synergies that may exist among PaMs.</p> <p>During the review, in response to a question raised by the ERT, the Russian Federation provided limited information on the modelling study applied for the energy projections, including a link to the underlying scenario study report (in Russian).</p> <p>The ERT encourages the Russian Federation to include in its next BR information on the models and methodologies applied, as listed in the UNFCCC reporting guidelines on NCs (para. 43).</p> |
| 10 | Reporting requirement specified in paragraph 44 Issue type: completeness Assessment: encouragement | <p>The Russian Federation did not provide references to detailed information on applied models and methodologies in the BR3.</p> <p>During the review, the ERT noted that the Russian Federation faces institutional challenges in reporting on references to detailed information on applied models and methodologies. During the review, the Party was not able to provide further information in response to the question raised by the ERT on this matter.</p> <p>The ERT encourages the Russian Federation to include in its next BR references to the models and methodologies applied.</p> |
| 11 | Reporting requirement specified in paragraph 45 Issue type: completeness Assessment: encouragement | <p>The Russian Federation did not report on the changes in methodologies for projections between its BR2 and BR3 submission, although it did report updated projections in the BR3 in terms of the year of commencement and assumptions.</p> <p>During the review, in response to the question raised by the ERT on this matter, the Russian Federation provided very limited information on the methodology applied for the reported projections in the BR3 in comparison with that applied in the BR2 (see para. 70 above).</p> <p>The ERT encourages the Russian Federation to include in its next BR information on the changes in methodologies for projections between the relevant successive submissions.</p> |

| No. | Reporting requirement, issue type and assessment | Description of the finding with recommendation or encouragement |
|-----|---|--|
| 12 | Reporting requirement specified in paragraph 46 Issue type: completeness Assessment: encouragement | The Russian Federation did not report on the sensitivity of projections to underlying assumptions, neither qualitatively nor quantitatively. During the review, the Party was not able to provide further information in response to the question raised by the ERT on this matter. The ERT encourages the Russian Federation to report in its next BR on the sensitivity of projections to underlying assumptions, qualitatively and, where possible, quantitatively. |
| 15 | Reporting requirement specified in paragraph 48 Issue type: completeness Assessment: recommendation | The Russian Federation did not provide information on factors and activities affecting the emission projections for each sector. During the review, the Party was not able to provide further information in response to the question raised by the ERT on this matter. The ERT reiterates the recommendation made in the previous review report that the Russian Federation include in its next BR information on factors and activities affecting the emission projections for each sector. |
| 16 | Reporting requirement specified in CTF table 5 Issue type: completeness Assessment: recommendation | The Russian Federation reported GDP growth as the only key variable or assumption in the BR3 (table V.1) and CTF table 5 and did not transparently report how the values relate to the reported GHG projection scenarios. No other assumptions, such as population growth, tax level and fuel price, were reported. The ERT noted, however, that the values for GDP presented in the NC7 were not consistent with each other, and that the Party did not transparently report how the reported GDP values relate to the reported GHG projection scenarios. During the review, the Party was not able to provide information on additional key variables or assumptions in response to the question raised by the ERT on this matter. The ERT recommends that the Russian Federation report in its next BR all relevant key variables and assumptions, clearly demonstrating how they relate to the projection estimates. |
| 17 | Reporting requirement specified in CTF table 5 Issue type: transparency Assessment: recommendation | The ERT noted that the values for GDP presented in the textual part of the BR3 and CTF table 5 were not consistent with each other. During the review, the Party was not able to provide further information on the reason for the inconsistency in response to the question raised by the ERT on this matter. The ERT recommends that the Russian Federation ensure consistency between the information reported in the textual part of the BR and the CTF tables. |

Notes: (1) The reporting on the requirements not included in this table is considered to be complete, transparent and adhering to the UNFCCC reporting guidelines on NCs and on BRs; (2) Paragraph number listed under reporting requirement refers to the relevant paragraph of the UNFCCC reporting guidelines on NCs.

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

73. The Russian Federation is not an Annex II Party and is therefore not obliged to adopt measures and fulfil obligations defined in Article 4, paragraphs 3, 4 and 5, of the Convention. However, the Russian Federation provided information in the BR3 on its provision of support to developing country Parties. The ERT commends the Russian Federation for reporting this information and suggests that it continue to do so in future BRs and NCs.

74. The Russian Federation provided financial support to developing countries through the Russia–UNDP Trust Fund for Development, which was launched in 2015 and has an allocation of USD 10 million specifically for climate change related projects through its Climate Change Window. Most projects financed by the Russian Federation through this mechanism are targeted at former Soviet Union countries; for example, the projects

Addressing Climate Change Impact through Enhanced Capacity for Wildfires Management in Armenia (2017–2020) (USD 1 million) and Strengthening Preparedness and Response Capacity in Tajikistan (2017–2019) (USD 1 million). The Russian Federation also provided financial support to Pacific SIDS for disaster resilience in the amount of USD 7.5 million for the period 2016–2019 under the Russia–UNDP Trust Fund for Development. During the review, the Party provided additional information on the provision of financial support to developing countries under the Russia–UNDP Partnership as well as a list of projects funded under the Russia–UNDP Partnership and on humanitarian assistance provided to developing countries by the Russian Federation to avoid consequences of unfavourable weather and climate events.

75. The Russian Federation made core contributions to the GEF during the period 2011–2014. During the review, the Party clarified that it has not contributed to the GEF in recent years (2015–2017) as indicated in the BR3 CTF tables. In 2015, the Russian Federation allocated USD 1 million to the Global Soil Partnership of the Food and Agriculture Organization of the United Nations. During the review, the Party informed the ERT of its contribution to the IPCC Trust Fund in the amount of 100,000 Swiss francs for the period 2019–2021.

76. The Russian Federation provided technology development and transfer support in the area of nuclear power to Armenia, Bangladesh, China, Egypt, India, Iran (Islamic Republic of), Jordan and Nigeria (construction of nuclear power stations); and Bolivia (Plurinational State of), Nigeria and Zambia (construction of centres of nuclear research).

77. The Russian Federation reported on its provision of capacity-building support to countries in the Commonwealth of Independent States (in the amount of USD 442,480) through the United Nations Industrial Development Organization project on capacity-building for developing programmes for mitigation of global environmental problems. The Party also reported on joint education and research programme activities on environmental and climate problems initiated upon an agreement between the Russian State Hydrometeorological University and national universities of Brazil, Mexico, Peru and Uzbekistan.

78. The ERT noted differences in the information provided in the BR3 CTF tables and the text of the BR3 and identified opportunities to increase the transparency of the information contained in the CTF tables. Table VI.1 of the BR3 indicates that the amount of financial support provided for disaster resilience in Pacific SIDS is USD 7.5 million for the period 2016–2019, while in CTF table 7(a)_2016, this amount is presented for 2016 only. During the review, the Russian Federation clarified that the total amount of financial support was disbursed in 2016 but will be used from 2016 to 2019. The ERT notes that in the next submission of the BR, the Party may wish to provide footnotes in the relevant CTF tables noting the implementation period if it differs from the year of disbursement.

79. In CTF table 7(a)_2015, the Russian Federation indicated financial support was provided for the project Integrated Support to Rural Development: Building Resilient Communities in Armenia (USD 5 million). This information is not included in the text of the BR3 or NC7. During the review, the Party informed the ERT that it provided financial support in the amount of USD 5 million for the project Integrated Support to Rural Development in the Tavush Region, Armenia (2015–2020) through the Russia–UNDP Partnership. The project supports rehabilitation of community infrastructures with a focus on improving energy efficiency, introducing water-saving technologies and ensuring access to safe drinking water.

80. In both CTF table 7(a)_2015 and CTF table 7(b)_2015, the Russian Federation indicated financial support was provided for the Vanuatu debris clearance initiative (USD 500,000). This information is not included in the text of the BR3 or NC7. During the review, the Party confirmed that it provided this support to Vanuatu through the Russia–UNDP Partnership. The ERT notes that in the next submission of the BR, the Party may wish to improve its reporting of financial support by avoiding double counting in the CTF tables.

81. In CTF table 7(b)_2015, the Russian Federation omitted the amount of financial support it provided for “Kyrgyzstan / The humanitarian aid (earthquake)”. During the review, the Party clarified that it provided RUB 17 million in financial support for humanitarian aid

(earthquakes). The ERT notes that in the next submission of the BR, the Party may wish to provide full information for the financial support it reports.

82. In CTF table 7(b)_2015, the Russian Federation indicated financial support was provided for “Vanuatu / Contribution to UNDP (Cyclone Pam)” and “Vanuatu / Contribution to UNICEF (Cyclone Pam)”. The ERT notes that CTF table 7(b) is designed to present information on the provision of public financial support through bilateral, regional and other channels. The ERT also notes that in the next submission of the BR, the Party may wish to improve its reporting of financial support in the CTF tables by providing information on support provided through UNDP and the United Nations Children’s Fund in CTF table 7(a)_2015, which is designed for reporting multilateral support.

83. In CTF table 7(b)_2016, the Russian Federation provided information on its financial support of “LDCs / Contribution to UNDP (climate change window)” in the amount of USD 3 million (disbursed) and USD 7 million (committed). This information is not consistent with the textual information provided in the BR3. The ERT notes that in the next submission of the BR, the Party may wish to improve its reporting of financial support by providing consistent information in the CTF tables and the text of the BR.

III. Conclusions and recommendations

84. The ERT conducted a technical review of the information reported in the BR3 and CTF tables of the Russian Federation in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the reported information mostly adheres to the UNFCCC reporting guidelines on BRs and provides an overview of emissions and removals related to the Party’s quantified economy-wide emission reduction target; assumptions, conditions and methodologies related to the attainment of the target; and progress made by the Party in achieving its target.

85. The Russian Federation’s total GHG emissions excluding LULUCF covered by its quantified economy-wide emission reduction target were estimated to be 29.2 per cent below its 1990 level, whereas total GHG emissions including LULUCF were 48.4 per cent below its 1990 level, in 2016. Emission decreases during the period 1990–1998 were due to the economic crisis after the dissolution of the Soviet Union, and the economic reforms put in place and consequent restructure of the economy. After 1998, emissions increased until 2012, driven by an upward economic trend and increasing fuel consumption and industrial production, except for a drop during 2009–2010 due to the worldwide economic recession. Since 2012 emissions have stabilized, with some inter-annual variations driven by unsteady GDP growth.

86. Under the Convention, the Russian Federation committed to achieving a quantified economy-wide emission reduction target of 25.0 per cent below the 1990 level by 2020. The target covers all sources and sectors included in the annual GHG inventory and CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃, expressed using global warming potential values from the AR4. Emissions and removals from the LULUCF sector are not included. The Russian Federation reported that it does not plan to make use of market-based mechanisms to achieve its target. In absolute terms, this means that under the Convention the Russian Federation has to reduce its emissions from 3,734,344.76 kt CO₂ eq (in the base year, based on NIR 2018) to 2,800,758.57 kt CO₂ eq by 2020.

87. The Russian Federation’s main policy framework relating to energy and climate change comprises the various strategies that prescribe the setting and the implementation by various governmental institutions of measures that will lead to the achievement of the target of a GHG emission reduction by 2020 to a level not exceeding 75 per cent of the 1990 level. Owing to the significance of the energy sector in the national economy, the policies with the most significant effect, as estimated and reported by the Russian Federation, are strategies related to energy development by 2020 and to the coal industry to 2030. The impact of the agriculture and waste sectors on GHG emissions is limited. PaMs in the LULUCF sector aim to increase the sequestration of GHGs. Energy efficiency remains the main focus of GHG emission reduction related measures, while initiatives for promoting RES are slightly increasing. The Russian Federation estimated the economic potential of the energy efficiency

measures at 327,457 kt CO₂ eq, which is 12.5 per cent of total GHG emissions in the Russian Federation in 2015.

88. For 2015 the Russian Federation reported in BR3 CTF table 4 total GHG emissions excluding LULUCF of 2,651,212.00 kt CO₂ eq, or 29.6 per cent below the 1990 level. The Russian Federation does not intend to make use of units from the market-based mechanisms. The Party reported on the contribution of LULUCF towards achieving its target. The reported information indicates that the Party has made progress towards its target.

89. The GHG emission projections provided by the Russian Federation in the BR3 correspond to the WOM, WEM and WAM scenarios. In the three scenarios, emissions are projected to be 17.4, 26.5 and 29.2 per cent below the 1990 level (based on NIR 2018) in 2020, respectively.

90. The reported information indicates that the Russian Federation expects to meet its 2020 target (25 per cent reduction compared with the 1990 level by 2020) under the WEM and WAM scenarios. However, because it is unclear whether the reported WEM and WAM scenarios adhere to the definitions of these scenarios given in the UNFCCC reporting guidelines on NCs, the ERT could not make a final assessment on the likelihood of the Party achieving the target.

91. The ERT noted that the Russian Federation is making progress towards its emission reduction target by implementing some mitigation actions that deliver some emission reductions.

92. The Russian Federation is not an Annex II Party and is therefore not obliged to adopt measures and fulfil obligations defined in Article 4, paragraphs 3, 4 and 5, of the Convention. However, the Russian Federation provided information in the BR3 on its provision of support to developing country Parties. The Russian Federation provided financial support to developing countries (mainly to former Soviet Union countries and Pacific SIDS), including through the Russia-UNDP Trust Fund for Development (including its Climate Change Window), and it provided technology development and transfer support in nuclear power.

93. In the course of the review, the ERT formulated the following recommendations for the Russian Federation to improve its adherence to the UNFCCC reporting guidelines on BRs in its next BR:⁴

- (a) To improve the completeness of its reporting by:
 - (i) Reporting emission projections for the WEM scenario, and WAM and WOM scenarios when reported, on a sectoral basis (see issue 3 in table 9);
 - (ii) Reporting emission projections for the WEM scenario, and WAM and WOM scenarios when reported, on a gas-by-gas basis (see issue 4 in table 9);
 - (iii) Providing, to the extent possible, emission projections related to fuel sold to ships and aircraft engaged in international transport separately and not included in the national total (see issue 6 in table 9);
 - (iv) Providing information on factors and activities affecting the emission projections for each sector (see issue 15 in table 9);
 - (v) Reporting all relevant key variables and assumptions used in the preparation of its projections (see issue 16 in table 9);
- (b) To improve the transparency of its reporting by:
 - (i) Providing a structured description of the legal and administrative framework for climate change related PaMs at the national, regional and local level (see issue 1 in table 4);
 - (ii) Reporting estimates of the effects of PaMs that it has implemented or plans to implement (see issue 3 in table 4);

⁴ The recommendations are given in full in the relevant chapters of this report.

- (iii) Reporting more clearly on the units from LULUCF in CTF table 4(a) (see issue 1 in table 6);
- (iv) Reporting on whether its WEM scenario, and WAM scenario when reported, is defined in accordance with the definition in the UNFCCC reporting guidelines on NCs (see issue 1 in table 9);
- (v) Reporting on the key variables and assumptions used in the preparation of its projections (see issue 16 in table 9).

Annex

Documents and information used during the review

A. Reference documents

2017 GHG inventory submission of the Russian Federation. Available at <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/submissions/national-inventory-submissions-2017>.

2018 GHG inventory submission of the Russian Federation. Available at <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018>.

BR3 of the Russian Federation. Available at <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/submitted-biennial-reports-brs-from-annex-i-parties>.

BR3 CTF tables of the Russian Federation. Available at <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/submitted-biennial-reports-brs-from-annex-i-parties>.

Compilation of economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention. FCCC/SBSTA/2014.INF.6. Available at <https://unfccc.int/topics/mitigation/workstreams/pre-2020-ambition/compilation-of-economy-wide-emission-reduction-targets-to-be-implemented-by-parties-included-in-annex-i-to-the-convention>.

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

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

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex to decision 15/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex III to decision 3/CMP.11. Available at <http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf>.

“Guidelines for review under Article 8 of the Kyoto Protocol”. Annex to decision 22/CMP.1. Available at <http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf>.

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

NC7 of the Russian Federation. Available at <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/submitted-national-communications-from-annex-i-parties>.

Report on the individual review of the annual submission of the Russian Federation submitted in 2016. FCCC/ARR/2016/RUS. Available at <http://unfccc.int/resource/docs/2017/arr/rus.pdf>.

Report of the technical review of the second biennial report of the Russian Federation. FCCC/TRR.2/RUS. Available at <http://unfccc.int/resource/docs/2016/trr/rus.pdf>.

Report of the technical review of the sixth national communication of the Russian Federation. FCCC/IDR.6/RUS. Available at <http://unfccc.int/resource/docs/2015/idr/rus06.pdf>.

Revisions to the guidelines for review under Article 8 of the Kyoto Protocol. Annex I to decision 4/CMP.11. Available at <http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf>.

“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>.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Alexander Nakhutin (IGCE), including additional material.
