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Technical analysis of the first biennial update report of Mauritania submitted on 14 March 2016

Summary report by the team of technical experts


Summary

According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention (non-Annex I Parties), consistent with their capabilities and the level of support provided for reporting, were to submit their first biennial update report (BUR) by December 2014. The least developed country Parties and small island developing States may submit BURs at their discretion. Further, according to paragraph 58(a) of the same decision, the first round of international consultation and analysis (ICA) will be conducted for non-Annex I Parties commencing within six months of the submission of the Party's first BUR. The process of ICA consists of two steps: the technical analysis of the submitted BUR, followed by a workshop for the facilitative sharing of views under the Subsidiary Body for Implementation. This summary report presents the results of the technical analysis of the first BUR of Mauritania conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19.

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I. Introduction and process overview

A. Introduction

1. According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention (non-Annex I Parties), consistent with their capabilities and the level of support provided for reporting, were to submit their first biennial update report (BUR) by December 2014. The least developed country Parties and small island developing States may submit BURs at their discretion. Further, according to paragraph 58(a) of the same decision, the first round of international consultation and analysis (ICA) is to be conducted for non-Annex I Parties, commencing within six months of the submission of the Party's first BUR. The process of ICA consists of two steps: the technical analysis of the submitted BUR, resulting in a summary report for each BUR analysed, followed by a workshop for the facilitative sharing of views under the Subsidiary Body for Implementation.

2. This summary report presents the results of the technical analysis of the first BUR of Mauritania undertaken by a team of technical experts (TTE) in accordance with the provisions on the composition, modalities and procedures of the TTE under ICA contained in the annex to decision 20/CP.19.

B. Process overview

3. Mauritania submitted its first BUR on 14 March 2016.

4. The technical analysis of the BUR took place from 13 to 17 June 2016 in Bonn, Germany, and was undertaken by the following TTE, drawn from the UNFCCC roster of experts on the basis of the criteria defined in decision 20/CP.19, annex, paragraphs 2–6: Mr. Ayite-Lô Ajavon (former member of the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention from Togo), Ms. Gherghița Nicodim (Romania), Ms. Sarah Kuen (Belgium), Ms. Rana Humbatova (Azerbaijan) and Ms. Valentina Idrissova (Kazakhstan). Mr. Ajavon and Ms. Nicodim were the co-leads. Ms. Karen Ortega and Mr. Siddhartha Naduri (secretariat) provided administrative support to the TTE.

5. During the technical analysis, in addition to the written exchange, through the secretariat, to provide technical clarifications on the information reported in the BUR, the TTE and Mauritania engaged in consultation via videoconferencing on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of the BUR, the TTE prepared and shared a draft summary report with Mauritania on 13 September 2016 for its review and comment. Mauritania, in turn, provided its feedback on the draft summary report on 2 November 2016.

6. The TTE responded to and incorporated the Party's comments referred to in paragraph 5 above and finalized the summary report in consultation with Mauritania on 23 November 2016.

II. Technical analysis of the information reported in the biennial update report

A. Scope of the technical analysis

7. The scope of the technical analysis is outlined in decision 20/CP.19, annex, paragraph 15, according to which the technical analysis aims to, without engaging in a

discussion on the appropriateness of these actions, increase transparency of mitigation actions and their effects, and shall entail the following:

(a) The identification of the extent to which the elements of information listed in paragraph 3(a) of the ICA modalities and guidelines (decision 2/CP.17, annex IV) have been included in the BUR of the Party concerned (see chapter II.B below);

(b) A technical analysis of the information reported in the BUR, specified in the “UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention” (hereinafter referred to as the UNFCCC reporting guidelines on BURs) contained in annex III to decision 2/CP.17, and any additional technical information provided by the Party concerned (see chapter II.C below);

(c) The identification, in consultation with the Party concerned, of capacity-building needs related to the facilitation of reporting in accordance with the UNFCCC reporting guidelines on BURs and to participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention (see chapter II.D below).

8. The remainder of this chapter presents the results of each of the three parts of the technical analysis of Mauritania’s BUR outlined in paragraph 7 above.

B. Overview of the elements of information reported

9. The elements of information referred to in paragraph 7(a) above include: the national greenhouse gas (GHG) inventory report; information on mitigation actions, including a description of such actions, an analysis of their impacts and the associated methodologies and assumptions, and the progress made in their implementation and information on domestic measurement, reporting and verification (MRV), and support received.

10. Further, according to decision 20/CP.19, annex, paragraph 15(a), in undertaking the technical analysis of the submitted BUR, the TTE is to identify the extent to which the elements of information listed in paragraph 9 above have been included in the BUR of the Party concerned. The results of that analysis are presented in tables 1, 2 and 3 below.

1. National greenhouse gas inventory

11. The parts of the UNFCCC reporting guidelines on BURs on reporting information on GHG emissions by sources and removals by sinks in BURs are contained in decision 2/CP.17, paragraph 41(g), and paragraphs 3–10 of the UNFCCC reporting guidelines on BURs. Further, as per paragraph 3 of those guidelines, non-Annex I Parties are to submit updates of their national GHG inventories in accordance with paragraphs 8–24 of the “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” contained in the annex to decision 17/CP.8. The scope of such updates should be consistent with the non-Annex I Party’s capacity and time constraints and the availability of its data, as well as the level of support provided by developed country Parties for biennial update reporting.

12. Table 1 presents the results of the identification of the extent to which the elements of information on GHGs are included in the first BUR of Mauritania in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 1
Identification of the extent to which the elements of information on greenhouse gases are included in the first biennial update report of Mauritania

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, paragraph 41(g)	The first BUR shall cover, at a minimum, the inventory for the calendar year no more than four years prior to the date of the submission, or more recent years if information is available	Yes	
Decision 2/CP.17, annex III, paragraph 5	The updates of the sections on the national inventories of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol should contain updated data on activity levels based on the best information available using the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF; any change to the emission factor may be made in the subsequent full national communication	No	Mauritania reported the same time series as that reported in its third national communication
Decision 2/CP.17, annex III, paragraph 9	The inventory section of the BUR should consist of a national inventory report as a summary or as an update of the information contained in decision 17/CP.8, annex, chapter III (National greenhouse gas inventories), including:	Yes	
	(a) Table 1 (National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol and greenhouse gas precursors)	Yes	
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆)	Yes	
Decision 2/CP.17, annex III, paragraph 6	Non-Annex I Parties are encouraged to include, as appropriate and to the extent that capacities permit, in the inventory section of the BUR:		
	(a) Tables included in annex 3A.2 to chapter 3 of the IPCC good practice guidance for LULUCF	NA	Mauritania used the 2006 IPCC Guidelines. Comparable information was reported in the BUR
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines	NA	The 2006 IPCC Guidelines were used. Comparable information was reported in the BUR
Decision 2/CP.17, annex III, paragraph 7	Each non-Annex I Party is encouraged to provide a consistent time series back to the years reported in the previous national communications	Yes	Mauritania provided a consistent time series back to the period 1990–2012 for CO ₂ , CH ₄ and N ₂ O
Decision 2/CP.17, annex III, paragraph 8	Non-Annex I Parties that have previously reported on their national GHG inventories contained in their national communications	Yes	

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
	are encouraged to submit summary information tables of inventories for previous submission years (e.g. for 1994 and 2000)		
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex	No	No sector-specific information was provided in the annexes to the BUR
Decision 17/CP.8, annex, paragraph 13	Non-Annex I Parties are encouraged to describe procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories, as well as efforts to make this a continuous process, including information on the role of the institutions involved	Yes	
Decision 17/CP.8, annex, paragraph 14	Each non-Annex I Party shall, as appropriate and to the extent possible, provide in its national inventory, on a gas-by-gas basis and in units of mass, estimates of anthropogenic emissions of the following gases by sources and removals by sinks: (a) CO ₂ (b) CH ₄ (c) N ₂ O	Yes	
Decision 17/CP.8, annex, paragraph 15	Non-Annex I Parties are encouraged, as appropriate, to provide information on anthropogenic emissions by sources of HFCs, PFCs and SF ₆	Yes	
Decision 17/CP.8, annex, paragraph 19	Non-Annex I Parties should, to the extent possible, and if disaggregated data are available, report emissions from international aviation and marine bunker fuels separately in their inventories: (a) International aviation (b) Marine bunker fuels	Yes	
Decision 17/CP.8, annex, paragraph 16	Non-Annex I Parties are encouraged, as appropriate, to report on anthropogenic emissions by sources of other GHGs, such as: (a) CO (b) NO _x (c) NMVOCs	Yes Yes Yes	Mauritania provided estimates for CO emissions from the AFOLU sector (biomass combustion) and zero values for the other sectors Mauritania provided estimates for NO _x emissions from the AFOLU sector (biomass combustion) and zero values for the other sectors Mauritania reported estimates for NMVOCs emissions from

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
			the IPPU sector (non-energy products from fuels and solvent use)
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as SO _x , included in the Revised 1996 IPCC Guidelines may be included at the discretion of the Parties	Yes	Mauritania reported estimates for SO ₂ emissions from the IPPU sector (mineral industry) and zero values for all the other sectors
Decision 17/CP.8, annex, paragraph 18	Non-Annex I Parties are encouraged, to the extent possible, and if disaggregated data are available, to estimate and report CO ₂ fuel combustion emissions using both the sectoral and the reference approaches, and to explain any large differences between the two approaches	No	Mauritania did not provide estimates for CO ₂ emissions from fuel combustion by using the reference approach
Decision 17/CP.8, annex, paragraph 21	Non-Annex I Parties are encouraged to provide information on methodologies used in the estimation of anthropogenic emissions by sources and removals by sinks of GHGs not controlled by the Montreal Protocol, including a brief explanation of the sources of emission factors and activity data. If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe the source and/or sink categories, methodologies, emission factors and activity data used in their estimation of emissions, as appropriate. Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building:		
	(a) Information on methodologies used in the estimation of anthropogenic emissions by sources and removals by sinks of GHGs not controlled by the Montreal Protocol	Yes	Mauritania used the 2006 IPCC Guidelines to estimate GHG emissions
	(b) Explanation of the sources of emission factors	Yes	Mauritania reported that the default emission factors from the 2006 IPCC Guidelines were used
	(c) Explanation of the sources of activity data	Yes	
	(d) If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe:	NA	The Party did not report on any country-specific sources or sinks that are not part of the methodologies in the 2006 IPCC Guidelines
	(i) Source and/or sink categories		
	(ii) Methodologies		
	(iii) Emission factors		
	(iv) Activity data		

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building	No	Mauritania provided a plan for the implementation of a QA/QC system for the GHG inventory
Decision 17/CP.8, annex, paragraph 24	Non-Annex I Parties are encouraged to provide information on the level of uncertainty associated with inventory data and their underlying assumptions, and to describe the methodologies used, if any, for estimating these uncertainties:		
	(a) Level of uncertainty associated with inventory data	Partly	Mauritania reported the level of uncertainty associated only with the activity data of the energy and AFOLU sectors. No information on the level of uncertainty associated with the emission factors was provided. Mauritania reported the emissions uncertainty at the inventory level (global and by gases) and at the sectoral level (total and by gases)
	(b) Underlying assumptions	Partly	Mauritania reported in summary the underlying assumptions for global CO ₂ uncertainty by level, global CO ₂ and CH ₄ uncertainty by trend and N ₂ O global uncertainty
	(c) Methodologies used, if any, for estimating these uncertainties	Yes	Mauritania used the 2006 IPCC Guidelines, tier 1 methodology approach, to estimate the global uncertainty of the GHG emissions

Abbreviations: AFOLU = agriculture, forestry and other land use, BUR = biennial update report, GHG = greenhouse gas, IPCC = Intergovernmental Panel on Climate Change, IPCC good practice guidance = *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, IPCC good practice guidance for LULUCF = *Good Practice Guidance for Land Use, Land-Use Change and Forestry*, IPPU = industrial processes and product use, NA = not applicable, NMVOC = non-methane volatile organic compound, QA/QC = quality assurance/quality control, Revised 1996 IPCC Guidelines = *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, 2006 IPCC Guidelines = *2006 IPCC Guidelines for National Greenhouse Gas Inventories*.

2. Mitigation actions and their effects

13. The parts of the UNFCCC reporting guidelines on BURs on the reporting of information on mitigation actions in BURs are contained in decision 2/CP.17, annex III, paragraphs 11–13.

14. Mauritania reported on mitigation actions in its first BUR. The information on the mitigation actions reported is provided in tabular format.

15. Table 2 presents the results of the identification of the extent to which the elements of information on mitigation actions are included in the first BUR of Mauritania in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 2

Identification of the extent to which the elements of information on mitigation actions are included in the first biennial update report of Mauritania

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or groups of mitigation actions including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide the following information to the extent possible:		
	(a) Name and description of the mitigation action, including information on the nature of the action, coverage (i.e. sectors and gases), quantitative goals and progress indicators	Partly	Information was not provided on greenhouse gases covered for the actions under the industrial processes and product use sector
	(b) Information on:		
	(i) Methodologies	No	No methodologies were included
	(ii) Assumptions	Yes	
	(c) Information on:		
	(i) Objectives of the action	Yes	
	(ii) Steps taken or envisaged to achieve that action	Yes	
	(d) Information on the progress of implementation of the mitigation actions and the underlying steps taken or envisaged, and the results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible:		
	(i) Progress of implementation of the mitigation actions	Yes	
(ii) Progress of implementation of the underlying steps taken or envisaged	Yes		
(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible	Partly	Information was provided only for some of the mitigation actions in the energy sector for the period 2008–2015	
(e) Information on international market mechanisms	Yes		
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on the description of domestic measurement, reporting and verification arrangements	Yes	

3. Finance, technology and capacity-building needs and support received

16. The parts of the UNFCCC reporting guidelines on BURs on the reporting of information on finance, technology and capacity-building needs and support received in BURs are contained in decision 2/CP.17, annex III, paragraphs 14–16.

17. Table 3 presents the results of the identification of the extent to which the elements of information on finance, technology and capacity-building needs and support received are included in the BUR of Mauritania in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 3

Identification of the extent to which the elements of information on finance, technology and capacity-building needs and support received are included in the first biennial update report of Mauritania

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on constraints and gaps, and related financial, technical and capacity-building needs:		
	(a) Constraints and gaps	No	No information on constraints and gaps was provided
	(b) Related financial, technical and capacity-building needs	Yes	
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should provide updated information on financial resources, technology transfer, capacity-building and technical support received from the Global Environment Facility, Annex II Parties and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current biennial update report	Partly	Only information on financial and capacity-building needs received was provided
Decision 2/CP.17, annex III, paragraph 16	With regard to the development and transfer of technology, non-Annex I Parties should provide information on technology needs, which must be nationally determined, and technology support received:		
	(a) Technology needs, which must be nationally determined	No	No information on technology needs was provided
	(b) Technology support received	No	No information on the technology support received was provided

C. Technical analysis of the information reported

18. The technical analysis referred to in paragraph 7(b) above aims to increase the transparency of mitigation actions and their effects, without engaging in discussion on the appropriateness of those actions. Accordingly, the technical analysis focused on the transparency of the information reported in the BUR.

19. For information reported on national GHG inventories, the technical analysis also focused on the consistency of the methods used for preparing those inventories with the appropriate methods developed by the Intergovernmental Panel on Climate Change (IPCC) and referred to in the UNFCCC reporting guidelines on BURs.

20. The results of the technical analysis are presented in the remainder of this chapter.

1. Information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis

21. As per the scope defined in paragraph 2 of the UNFCCC reporting guidelines on BURs, the BUR should provide an update to the information contained in the most recently submitted national communication, including, among other things, information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis. For their national communications, non-Annex I Parties report on their national circumstances following the reporting guidance contained in decision 17/CP.8, annex, and paragraphs 3–5.

22. In accordance with decision 17/CP.8, annex, paragraph 3, Mauritania, in its BUR, reported the following information on national circumstances: geographical, climatic, demographic and political information; economic and social development information (macroeconomic indicators and relative contributions of sectors to the overall economy); national, sectoral and regional development priorities and objectives, including national cross-cutting policies; and the climate policy framework, with its current institutional structure for implementation.

23. Mauritania provided figures, graphs and tables to illustrate the items. This information adequately describes the national circumstances, in particular, the biophysical, demographic, political and economic features.

24. Mauritania, in its BUR, described its institutional arrangements relevant to the preparation of national communications and BURs on a continuous basis. The description covers key aspects of the institutional arrangements such as the legal status and roles of the national entity in charge of reporting to the secretariat (Ministry of Environment and Physical Planning). The involvement and roles of other institutions, as well as their participation in the preparation of BURs, are also described.

25. Mauritania provided in the BUR information on a preliminary domestic MRV system. This information is relevant to the ongoing arrangements to establish an MRV system. During the technical analysis, Mauritania indicated a lack of capacity to put in place the required domestic MRV system that could facilitate the preparation of national communications and BURs on a continuous basis.

2. National greenhouse gas emissions by sources and removals by sinks

26. As indicated in table 1 above, Mauritania reported in its BUR information on national GHG inventories, in accordance with paragraphs 3–10 of the UNFCCC reporting guidelines on BURs and paragraphs 8–24 of the “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” contained in the annex to decision 17/CP.8.

27. Mauritania reported in its BUR information on its national GHG inventories covering GHG emissions and removals for 1990, 2000, 2010 and 2012 using the *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF) and the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines). In addition to emission and removal estimates for the above-mentioned

years, the TTE notes that Mauritania reported the trends of the GHG emissions for the period 1990–2012.

28. Mauritania included in its BUR a summary of the national inventory report (NIR) containing the same activity data as that reported in its third national communication. The net anthropogenic GHG emissions in 2012 reported in Mauritania's first BUR were as follows: 2214.6 Gg carbon dioxide (CO₂), 229.043 Gg methane (CH₄), 0.127 Gg nitrous oxide (N₂O) and 6.542 Gg hydrofluorocarbon-134a (HFC-134a). The total emissions with land use, land-use change and forestry (LULUCF) in 2012 amounted to 7070.5 Gg CO₂ equivalent (eq) compared with 3101.84 Gg CO₂ eq in 1990.

29. Mauritania did not provide information on anthropogenic emissions by sources of other GHGs, including non-methane volatile organic compounds (NMVOCs), as encouraged by decision 17/CP.8, annex, and paragraph 16. Other gases not controlled by the Montreal Protocol, such as sulphur oxides, were also not included in the BUR as encouraged by decision 17/CP.8, annex, and paragraph 17. The TTE notes that the transparency of the reporting could be further enhanced by estimating and reporting emissions of carbon monoxide, nitrogen oxides, NMVOCs and sulphur dioxide from other sectors and indirect GHG emissions in a consistent manner.

30. Mauritania reported the same time series as that reported in its third national communication. GHG emissions were estimated using the tier 1 approach and the IPCC default emission factors, and reported for the whole time series by gases (CO₂, CH₄ and N₂O). Mauritania reported a key source analysis by sector, both by level and by trend, in an aggregated manner. The Party did not include the updated data on activity levels based on the best information available in line with decision 2/CP.17, annex III, paragraph 5. The tables included in annex 3A.2 to chapter 3 of the IPCC good practice guidance for LULUCF and the sectoral tables annexed to the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* were not included as encouraged by decision 2/CP.17, annex III, paragraph 6. The TTE notes that the BUR does not provide information describing the activity data and emission factors used in preparing the inventory as encouraged by decision 17/CP.8, annex, and paragraph 21. In response to a request from the TTE for technical clarification during the technical analysis period, Mauritania provided the NIR that was prepared and used to support the preparation of the first BUR. The TTE notes that the NIR contained relevant information related to the above-mentioned provisions of the guidelines. The TTE also notes that the transparency of the reporting could be further enhanced by including this information in the subsequent BUR.

31. The GHG inventory provided by Mauritania in its first BUR covers most of the categories and the GHGs whose emissions occur in Mauritania and for which information was available. Tables A and B in the BUR presented information comparable to that contained in tables 1 and 2 in the annex to decision 17/CP. However, the values of emissions from some categories and gases were reported as zero but the BUR does not present any notation keys. The TTE notes that notation keys were used in tables containing values for similar categories and gases in the NIR provided in response to the request for technical clarification. The TTE notes that the use of notation keys in the BUR would enhance the transparency of the inventory.

32. The BUR includes the results of an uncertainty analysis by providing the global uncertainty associated with inventory data, the uncertainty of the sectors, by level and by trend (tables RE4, RE5), as encouraged by decision 17/CP.8, annex, paragraph 24. However, the information on underlying assumptions for data and information used in the determination of uncertainty for all sectors was not reported in detail in the BUR. The TTE notes that the transparency could be further enhanced by including an explanation of the underlying assumptions and a specification of the activity data used for the uncertainty analysis.

33. Clear information on the use of the IPCC guidelines and methodologies used was not presented in the BUR. During the technical analysis, Mauritania clarified that, with a view to promoting good-quality and continuous development of its GHG inventory, it used the 2006 IPCC Guidelines for estimating and reporting its national GHG emissions. The Party also stated that use of the 2006 IPCC Guidelines was beneficial and easy owing to the availability of the software and the organization of data in a database. It also provided an opportunity to easily move from default to higher tiers, and helped to reduce the possibility of double accounting by integrating GHG emissions from the agriculture sector with those from the LULUCF sector.

34. The TTE identified inconsistencies in the reporting of total national emissions (CO₂ from the energy sector, hydrofluorocarbons (HFCs) from the industrial processes and product use (IPPU) sector and CH₄ from the agriculture, forestry and other land use (AFOLU) sector). During the interaction with the TTE, Mauritania confirmed that these inconsistencies occurred while compiling the BUR. The TTE notes that improving quality assurance/quality control (QA/QC) processes would contribute to enhancing the transparency of the information to be reported in future BURs.

35. Energy and AFOLU are the main emitting sectors in Mauritania. The IPPU sector accounted for less than 1 per cent of the total net emissions and were associated with metal production, lubricants use and HFC-134a from refrigeration and air-conditioning equipment. In the waste sector only open burning of waste was accounted for.

36. As regards the AFOLU sector, the BUR did not report activity data and a description of national practices for animal breeding and land representation. Limited information was reported for forestry and land use. As indicated in the BUR, activity data were collected from the Ministry of Agriculture. Although level and trend uncertainties are presented by gas, Mauritania did not report qualitative activity data uncertainty in its BUR. The TTE notes that most of this information is available in the NIR submitted during the technical analysis, and that the transparency of future reports could be further improved by including activity data on the animal population, crops, land type representation and land areas.

37. The energy sector was the second major contributing sector in 2012 for Mauritania and accounted for 2472.8 Gg CO₂ eq, approximately 34.9 per cent of the total GHG emissions, as given in table A of annex 1 to the BUR. Within the energy sector, the energy industry covered 25.2 per cent of the total emissions and manufacturing industry and construction contributed to 17.3 per cent, while other sectors accounted for 15 per cent. The most important contributor was the transport sector, which accounted for approximately 42.5 per cent of the total GHG emissions from the energy sector. The BUR indicates that GHG emissions have an increasing trend in road transport owing to increasing imports of second-hand cars in recent years. By gas, CO₂ emissions accounted for 98.8 per cent of total GHG emissions from the energy sector, followed by N₂O at 1.1 per cent and CH₄ at around 0.1 per cent. Mauritania's BUR did not include information on the sectoral approaches used. During interaction with the TTE, Mauritania clarified that the activity data were aggregated and not reported in great detail to facilitate the calculation of the difference between the results from the reference approach and those from the sectoral approach; the Party indicated that the NIR submitted during the technical analysis shows a clear-cut difference between the two approaches as illustrated in annex I to the NIR. The TTE notes that the inclusion of this information in the BUR would improve the reporting of the emissions from the energy sector in future reports.

3. Mitigation actions and their effects, including associated methodologies and assumptions

38. As indicated in table 2 above, Mauritania reported in its BUR, in accordance with paragraphs 11–13 of the UNFCCC reporting guidelines on BURs, information on mitigation actions and their effects. The TTE notes that the information was not presented in a tabular format as indicated in paragraph 11 of the same guidelines.

39. Mauritania's BUR frames mitigation planning and actions in the context of its intended nationally determined contribution (INDC); the Party aims to reduce GHG emissions by 22.3 per cent by 2030, equivalent to about 33.56 Mt CO₂ eq, compared with emissions projected for the same year according to a 'business as usual' scenario. Twelve per cent of the potential emission reductions are unconditional and will result mainly from government regulations, while the implementation of other mitigation actions is conditional on international support. A set of mitigation actions to be implemented was categorized into two phases: short-term actions (2016–2020) and long-term actions (2021–2030). The BUR also presents information on mitigation actions implemented during the period 2008–2015. Mauritania clarified during the technical analysis that the latter measures constituted the 'business as usual' scenario.

40. The BUR indicates that the 2016–2020 period will be dedicated to the consolidation of actions planned, and for preparatory capacity-building activities to facilitate the implementation of the sectoral INDC. The BUR also states that the selection of mitigation actions was guided by development objectives contained in strategies and national plans. The set of identified mitigation actions to be implemented consists of 15 measures, covering the energy, AFOLU and IPPU sectors. The total potential GHG emission reduction is estimated at approximately 11.91 Mt CO₂ eq. Most of the measures address CO₂ emissions. However, information on the coverage (gases) for the actions in the IPPU sector was not specified in the BUR. During the technical analysis, Mauritania provided additional information on gases that were addressed in the IPPU sector and whether mitigation actions in the energy sector included any gases other than CO₂. The TTE notes that the transparency of the reporting could be enhanced by including the coverage (gases) of all mitigation actions described.

41. Mitigation actions planned in the energy sector consist of eight measures, mainly on renewable energy, with one on substitution of fuel. Six mitigation measures in the AFOLU sector focus on reforestation and rehabilitation of forests and pastures and two of these are of national priority as they contribute to the preservation of natural resources. One project relates to the IPPU sector. The measures for the period 2016–2020 in the energy and AFOLU sectors cover 49.5 per cent and 46.9 per cent of the total national GHG mitigation potential, respectively. The TTE notes a discrepancy in the information provided in the BUR (page 64, table 26) and annex 2 to the BUR concerning the qualitative assumptions of the impact of mitigation action in the energy sector (Diffusion 30000 LED lamps). The TTE notes that the transparency of future reports could be improved by strengthening the QA/QC procedure in relation to the information reported.

42. The BUR provides a brief qualitative summary of the main mitigation actions, their objectives and implementation status. It also mentions that the implementation of the mitigation measures depends on the frequency and extent of the financial resources and technology transfer that will be mobilized for Mauritania's priority programme on economic and social development and poverty eradication. The TTE notes that the transparency of future BURs could be enhanced by including a more detailed description of the actions taken and planned and results achieved, such as estimated outcomes and estimated emission reductions for mitigation actions during the period 2016–2020.

43. The TTE notes that information on the methods used for estimating emission reductions was not included in the BUR. In response to a request from the TTE for technical clarification during the technical analysis, Mauritania indicated that this was as a result of editing errors and provided additional information on this item. The TTE notes that the transparency of future reports could be improved by strengthening the QA/QC procedure and by including the methodologies used to calculate possible emission reductions to be achieved by the mitigation actions.

44. Regarding international carbon markets, the BUR indicates that the preparatory activities for the period 2016–2020 include the development of new market mechanisms to meet the planned emission reduction target.

45. Information on domestic MRV arrangements is provided across the BUR and points to the need to establish a national MRV system.

4. Constraints and gaps, and related technology, financial, technical and capacity-building needs, including a description of support needed and received

46. As indicated in table 3 above, Mauritania reported in its BUR, in accordance with paragraphs 14–16 of the UNFCCC reporting guidelines on BURs, information on finance, technology and capacity-building needs and support received.

47. Mauritania reported the support received and needed in table 31 of the BUR, indicating the quantified support received and needed, the beneficiary national institutions, time frames, implementing and supporting agencies, as well as the status of such support received.

48. Mauritania has reported few constraints and gaps related to data collection in its BUR. While providing answers on the technical clarifications sought by the TTE, Mauritania further clarified additional constraints and gaps related to the use of methodological tools and understanding guidelines for the preparation of BURs and some related to technology transfer. The main constraints and gaps were related to the lack of capacity and resources and the need to enhance the knowledge of those tools and guidelines. The TTE notes that the transparency of the information on constraints and gaps can be enhanced by including clear information in future reports.

49. Mauritania did not report in the BUR on the technology needs which must be nationally determined; during the technical clarification process, Mauritania clarified that owing to insufficient capacity to understand and identify those technology needs, and such needs were not included in the BUR. It informed the TTE that it has a plan that could facilitate the reporting of needs, constraints and gaps; the Party expressed its willingness to build capacity and obtain financial support to facilitate the identification of technology needs nationally.

5. Domestic measurement, reporting and verification

50. As indicated in table 2 above, Mauritania reported in its BUR, in accordance with paragraph 13 of the UNFCCC reporting guidelines on BURs, information on the description of domestic MRV arrangements.

51. According to the information provided in its BUR, Mauritania is currently at the preparatory stage of developing pilot nationally appropriate mitigation actions (NAMAs) and a national MRV system. The Party indicated in the BUR that certain institutional arrangements are already in place, notably: the responsibilities of the Coordinating Unit of the National Climate Change Programme have been defined; the United Nations Development Programme has become involved in the BUR preparation process; sectorial focal points have been appointed; groups of experts have been engaged for preparing the GHG inventory; and procedures have been defined for estimating uncertainties and conducting QA/QC.

52. The BUR indicates that various components of the MRV system are in place; however, the Party has experienced some challenges at the technological level for collecting data (e.g. measurement equipment has been installed at new renewable energy plants but there is no capacity to use the data collected). In response to a request from the TTE for technical clarification, Mauritania provided additional information on the establishment of an electronic archiving system at the national level containing climate change data, including mitigation measures, which is intended to be the embryo of the country's climate database. Mauritania emphasized that this database needed to be improved and that capacity-building for the preparation and monitoring of NAMAs and domestic MRV is needed.

53. The TTE notes that, as reported in the BUR, the domestic MRV system is at the initial stage of identifying institutional arrangements and no further actions are currently being undertaken owing to the lack of capacity to design, identify and apply appropriate tools and methods for the development of a more robust MRV national system.

D. Identification of capacity-building needs

54. In consultation with Mauritania, the TTE identified the following capacity-building needs related to the facilitation of the preparation of subsequent BURs and participation in ICA:

(a) Training of experts in order to enhance their knowledge in the following areas:

(i) The preparation of GHG inventories: training in specific methodologies for developing country-specific emission factors, moving to higher-tier approaches, estimating HFC and perfluorocarbon emissions and assessing uncertainties; establishing a national data collection system, addressing gaps, validating activity data and improving QA/QC procedures and verification; strengthening the national archiving and data management system, particularly via capacity-building, online data management and institutional arrangements; supporting activity data collection and processing in the AFOLU sector by facilitating access to the latest satellite data of land use and land-use mappings; gaining access to the private and public climate change funding network;

(ii) Mitigation: identification, development and implementation of NAMAs in key sectors and low-emission development strategies; capacity-building support in updating 'business as usual' and developing different mitigation scenarios, including modelling and training of experts on methodologies; preparation of sustainable low-carbon development strategies at the national and local levels and in the sectors concerned; defining the objectives of the actions and measures taken or envisaged for mitigating GHG emissions;

(b) The development of a domestic MRV system to be operative on a continuous basis with tasks being decentralized through the identification of key departments and agencies and the provision of a clear and appropriate management mandate;

(c) Strengthening the capacities of the sectoral task forces so that they can be accountable for implementable mitigation measures and identify constraints, gaps and technical and financial needs;

(d) The participation of experts in all regional and international training activities on quantifying GHG emission methodologies, as well as discussions and forums on mitigation;

(e) Developing the financial evaluation of mitigation actions, in particular the cost-benefit analysis and the curve of the marginal abatement cost;

(f) Evaluating gaps and needs for capacity-building and transfer of low-carbon technologies associated with the implementation of mitigation activities, measures and programmes;

(g) The institutionalization of the national team in charge of audits, monitoring and verification of the impacts of mitigation measures;

(h) Development of detailed methodologies and tools (e.g. the LEAP (Learning, Evaluation and Planning) model) to estimate/quantify the reduction of emissions from various mitigation policies, programmes and actions, including monitoring the progress of implementation and results.

III. Conclusions

55. The TTE concludes that part of the elements listed in paragraph 3(a) of the ICA guidelines have been included in the first BUR of Mauritania. In addition, most of non-mandatory elements were reported. During the technical analysis, Mauritania provided further elements in response to the technical clarifications. In summary, the TTE concludes the following:

(a) Mauritania reported most information on national circumstances as well as institutional arrangements. Most information related to national circumstances was reported transparently. Information on institutional arrangements was only partly reported owing to insufficient capacity but the process of putting in place institutional arrangements to enable the preparation of national communications and BURs on a continuous basis is ongoing;

(b) Mauritania reported in its BUR information on its national GHG inventories covering GHG emissions and removals for the years 1990, 2000, 2010 and 2012 and emission trends for 1990–2012 for CO₂, CH₄ and N₂O. The tier 1 approach and default emission factors of the 2006 IPCC Guidelines were mostly used to estimate emissions. Activity data and a description of national practices were not reported in the BUR. During the technical analysis, Mauritania provided its NIR containing relevant information, which was welcomed by the TTE. Mauritania clarified that the NIR was not submitted along with the BUR owing to administrative constraints. The TTE notes that improved QA/QC, use of notation keys and activity data and a description of national practices as well as incorporating relevant information reported in the NIR into the BUR would improve the transparency of the GHG inventory section;

(c) Mauritania also reported information on mitigation actions and their effects, covering the periods 2016–2020 and 2021–2030. Mauritania's BUR describes the plans and activities in the context of its INDC to reduce GHG emissions by 22.3 per cent by 2030 in relation to emissions projected for the same year according to a 'business as usual' scenario. This is equivalent to about 33.56 Mt CO₂ eq. Mauritania is currently in the preparatory stage of developing pilot NAMAs and a national MRV system. The information reported in the BUR describing mitigation actions is mostly transparent. However, the TTE notes that the transparency of the BUR could be improved by including the methodologies used to calculate emission reductions, a more detailed description of the actions taken and planned and the inclusion of results achieved, such as estimated outcomes and estimated emission reductions for mitigation actions during the 2016–2020 period;

(d) Mauritania reported constraints and gaps, and related financial, technical and capacity-building needs. Information contained in the BUR is mainly related to the financial support received. The TTE notes that a more detailed description of the constraints and gaps as well as the support needed would enhance the transparency of the information reported;

(e) Mauritania reported information on national circumstances and institutional arrangements. As clarified by the Party, the preparation of a more detailed definition of the institutional arrangements is ongoing but Mauritania did not have enough capacity and resources to secure the preparation of national communications and BURs on a continuous basis.

56. The TTE, in consultation with Mauritania, identified eight¹ capacity-building needs related to the facilitation of reporting in accordance with the UNFCCC reporting guidelines on BURs and to participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention. Mauritania further identified the following as the priority capacity-building needs:

¹ This refers to the number of capacity-building needs listed in chapter II.D above.

(a) Support for the establishment and operationalization of a national inventory system, including: A training programme for all the experts in charge of GHG inventories based on assessments of the individual skills and gaps of the experts, in particular training in all methods of estimating GHG emissions as established by the latest IPCC guidelines; equipment; moving from tier 1 to a higher level; domestic emission factors;

(b) Training of the national experts in mitigation assessment, including on quantification of mitigation, cost–benefit analysis and the curve of the marginal abatement cost;

(c) Support for establishing a specific structure for the certification of GHG emissions and assessment of the impacts of mitigation measures;

(d) Support for designing and implementing a national system of storage and archiving of data on inventories and mitigation measures.

Annex

Documents and information used during the technical analysis

A. Reference documents

“Composition, modalities and procedures of the team of technical experts for undertaking the technical analysis of biennial update reports from Parties not included in Annex I to the Convention”. Annex to decision 20/CP.19. Available at <http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=12>.

“Modalities and guidelines for international consultation and analysis”. Annex IV to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>.

“UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention”. Annex III to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>.

“Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention”. Annex to decision 17/CP.8. Available at <http://unfccc.int/resource/docs/cop8/07a02.pdf#page=2>.

First biennial update report of Mauritania. Available at <http://unfccc.int/8722.php>.

Third national communication of Mauritania. Available at: http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php.

B. Additional information provided by the Party

The following documents¹ were provided by Mauritania in response to the technical clarification during the technical analysis:

- (a) The national inventory report;
- (b) Activity data and uncertainties in emission sources in Mauritania;
- (c) Country’s capacity-building needs in GHG inventory;
- (d) Capacity-building in GHG mitigation.

¹ Reproduced as received from the Party.