United Nations

FCCC/SBI/ICA/2022/TASR.1/MUS

Framework Convention on Climate Change

Distr.: General
19 January 2023

English only

Technical analysis of the first biennial update report of Mauritius submitted on 31 December 2021

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, consistently with their capabilities and the level of support provided for reporting, were to submit their first biennial update report by December 2014. As mandated, the least developed country Parties and small island developing States may submit biennial update reports at their discretion. This summary report presents the results of the technical analysis of the first biennial update report of Mauritius, conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19.

Abbreviations and acronyms

2006 IPCC Guidelines	*2006 IPCC Guidelines for National Greenhouse Gas Inventories*
AD	activity data
AFOLU	agriculture, forestry and other land use
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BUR	biennial update report
CDM	clean development mechanism
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
EF	emission factor
ETF	enhanced transparency framework under the Paris Agreement
GHG	greenhouse gas
GWP	global warming potential
HCFC	hydrochlorofluorocarbon
HFC	hydrofluorocarbon
HWP	harvested wood products
ICA	international consultation and analysis
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
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
N_2O	nitrous oxide
NA	not applicable
NAMA	nationally appropriate mitigation action
NC	national communication
NDC	nationally determined contribution
NE	not estimated
NIR	national inventory report
NMVOC	non-methane volatile organic compound
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
NO_X	nitrogen oxides
PFC	perfluorocarbon
QA/QC	quality assurance/quality control
Revised 1996 IPCC Guidelines	*Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*
SF_6	sulfur hexafluoride
SO_X	sulfur oxides
TTE	team of technical experts
UNFCCC guidelines for the preparation of NCs from non-Annex I Parties	"Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention"
UNFCCC reporting guidelines on BURs	"UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention"

I. Introduction and process overview

A. Introduction

1. The process of ICA consists of two steps: a technical analysis of the submitted BUR and a facilitative sharing of views under the Subsidiary Body for Implementation, resulting in a summary report and a record, respectively.

2. According to decision 2/CP.17, paragraph 41(a), non-Annex I Parties, consistently with their capabilities and the level of support provided for reporting, were to submit their first BUR by December 2014. The least developed countries and small island developing States may submit at their discretion.

3. Further, according to paragraph 58(a) of the same decision, the first round of ICA is to commence for non-Annex I Parties within six months of the submission of the Parties' first BUR. The frequency of developing country Parties' participation in subsequent rounds of ICA, depending on their respective capabilities and national circumstances, and the special flexibility for small island developing States and the least developed country Parties, will be determined by the frequency of the submission of BURs.

4. This summary report presents the results of the technical analysis of the first BUR of Mauritius, undertaken by a 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

5. In accordance with the mandate referred to in paragraph 2 above, Mauritius submitted its first BUR on 31 December 2021 as a stand-alone update report.

6. In its BUR, the Party clarified that, as a small island developing State, it submitted its first BUR at its discretion. During the technical analysis, the Party explained that its initial intention was to submit the BUR and NIR by the end of 2020. However, institutional and administrative challenges were exacerbated by the coronavirus disease 2019 pandemic, which delayed the preparation, finalization and approval of the reports.

7. The technical analysis of Mauritius' BUR was conducted from 20 to 24 June 2022 in Bonn 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: Ahmad Wafiq Aboelnasr (Egypt), Stefania D'Annibali (Argentina), Hiroshi Ito (Japan), Roberto Lucero (Ecuador), Philippe Missi Missi (Cameroon), Helen Plume (New Zealand), Anatoli Poultouchidou (Greece), Koen E. L. Smekens (Belgium) and Sirinthornthep Towprayoon (Thailand). Ahmad Wafiq Aboelnasr and Helen Plume were the co-leads. The technical analysis was coordinated by Gopal Raj Joshi, Martina Kuehner and Claudia do Valle (secretariat).

8. During the technical analysis, in addition to the written exchange, in the virtual team room, to provide technical clarifications on the information reported in the BUR, the TTE and Mauritius engaged in consultation[1] on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of Mauritius' first BUR, the TTE prepared and shared a draft summary report with Mauritius on 25 August 2022 for its review and comment. Mauritius, in turn, provided its feedback on the draft summary report on 22 November 2022.

9. The TTE responded to and incorporated Mauritius' comments referred to in paragraph 8 above and finalized the summary report in consultation with the Party on 11 January 2023.

[1] The consultation was conducted via videoconferencing.

II. Technical analysis of the biennial update report

A. Scope of the technical analysis

10. 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 the actions, increase the 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 chap. II.B below);

(b) A technical analysis of the information reported in the BUR, specified in the UNFCCC reporting guidelines on BURs (decision 2/CP.17, annex III), and any additional technical information provided by the Party concerned (see chap. 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 chap. II.D below).

11. The remainder of this chapter presents the results of each of the three parts of the technical analysis of Mauritius' BUR outlined in paragraph 10 above.

B. Extent of the information reported

12. The elements of information referred to in paragraph 10(a) above include the national 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 information on progress in their implementation; information on domestic MRV; and information on support needed and received.

13. 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 12 above have been included in the BUR of the Party concerned. The TTE considers that the reported information is partially consistent with the UNFCCC reporting guidelines on BURs. Specific details on the extent of the information reported for each of the required elements are provided in the tables included in annex I.

C. Technical analysis of the information reported

14. The technical analysis referred to in paragraph 10(b) above aims to increase the transparency of information reported by the Parties on mitigation actions and their effects, without engaging in a discussion on the appropriateness of those actions. Accordingly, the focus of the technical analysis was on the transparency of the information reported in the BUR.

15. 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 IPCC and referred to in the UNFCCC reporting guidelines on BURs. Mauritius submitted an NIR as a stand-alone document and, further to consultations with the TTE, requested a more detailed analysis and documentation of the findings contained in the NIR to be undertaken using the agreed GHG inventory tool.

16. 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

17. 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 NC, including information on national circumstances and institutional arrangements relevant to the preparation of NCs on a continuous basis. In their NCs, non-Annex I Parties report on their national circumstances following the reporting guidance contained in decision 17/CP.8, annex, paragraphs 3–5, and they could report similar information in their BUR, which is an update of their most recently submitted NC.

18. Mauritius reported in its first BUR information on its national circumstances, including a description of national and regional development priorities, objectives and circumstances, including features of geography, climate and economy that might affect the Party's ability to deal with mitigating and adapting to climate change, as well as information regarding national circumstances and constraints on the specific needs and concerns arising from the adverse effects of climate change and/or the impact of the implementation of response measures, as referred to in Article 4, paragraph 8, and, as appropriate, Article 4, paragraphs 9–10, of the Convention.

19. In addition, Mauritius provided a summary of relevant information regarding its national circumstances in tabular format. It also provided graphs illustrating climate change impacts in key areas.

20. Mauritius transparently reported in its first BUR information on its existing ad hoc institutional arrangements relevant to the preparation of its NC3 and first BUR. The Environment and Climate Change Division of the Department of Climate Change under the Ministry of Environment, Solid Waste Management and Climate Change coordinated a steering committee, a technical committee and six sectoral technical working groups for this purpose. Sectoral ministries and other institutions nominated staff members to the technical working groups. The Party reported that the current ad hoc institutional arrangement is posing a challenge to enhanced coordination, effective institutional memory, systematic data archiving and enhanced technical capacity of national experts.

21. Mauritius transparently reported in its first BUR information on its planned institutional arrangements relevant to the preparation of its NCs and BURs on a continuous basis. The description covers key aspects of the institutional arrangements, including the legal status and roles and responsibilities of the overall coordinating entity and the involvement and roles of other sectoral ministries, institutions and experts for technical working groups. The Climate Change Committee established under the Climate Change Act 2020 will coordinate all activities related to the preparation of NCs and BURs. The sectoral ministries and institutions will provide technical knowledge, data and national experts for the six technical working groups (energy industries, transport, energy (other), IPPU, AFOLU and waste). These national experts will oversee mechanisms for information and data collection and exchange, QA/QC procedures and provisions for public consultation and other forms of stakeholder engagement. The Party reported that the planned institutional arrangements will build on the existing arrangements.

22. Mauritius reported in its first BUR information on its planned domestic MRV arrangements. The description covers key aspects of the institutional arrangements, including the institutions to be involved and their roles. The MRV arrangements are designed at the national level and cover three main areas: the GHG inventory system, mitigation action, and support needed and received. The Climate Change Committee will be responsible for preparing GHG inventories and supported by six technical working groups. The mitigation working groups, comprising representatives of the relevant line ministries and institutions, will develop procedures and standards for facilitating the collection and reporting of data on tracking mitigation actions. The key ministries and institutions, including the Ministry of Finance, Economic Planning and Development, will develop reporting templates to track support received for climate actions. The planned MRV system will build on the existing systems, processes and infrastructure, rendering it cost-effective.

23. Mauritius reported in its BUR that the existing MRV arrangements need to be further developed to meet the growing need for information and data to inform national policies and

facilitate reporting in compliance with the requirements under the ETF. The Party has identified several areas of improvement for the GHG inventory system (such as establishing sustainable solutions for collecting and archiving data and building internal capacities to estimate GHG emissions and removals), the tracking of the status and progress of mitigation actions and the tracking of finance, technology and capacity-building support received for climate change activities, while ensuring no double counting of such support received. Mauritius presented prioritized actions, and their implementation status, to further develop its MRV arrangements. The Party has embarked on the Capacity-building Initiative for Transparency and a NAMA project (Nationally Appropriate Mitigation Actions for Low Carbon Islands Development Strategy), which will enable it to undergo mitigation assessment, analyse support needed to implement mitigation actions, track the progress of its NDCs, improve the quality of its national GHG inventory and draft its national reports, including the biennial transparency report, on a regular basis. The TTE commends the Party for the clear and comprehensive reporting on its proactive approach to preparing for ETF implementation.

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

24. As indicated in table I.1, Mauritius reported information on its GHG inventory in its BUR mostly in accordance with paragraphs 3–10 of the UNFCCC reporting guidelines on BURs and paragraphs 8–24 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties, contained in the annex to decision 17/CP.8.

25. Mauritius submitted its first BUR in 2021 and the GHG inventory reported is for 2000–2016. The latest reported inventory year is more than four years prior to the date of submission of the Party's BUR. During the technical analysis, Mauritius clarified that it could not finalize and submit its BUR and NIR in 2020 owing to the challenges referred to in paragraph 6 above.

26. Mauritius submitted an NIR in conjunction with its first BUR. The relevant sections of the NIR were referenced in the BUR and the document was made publicly available on the UNFCCC website.[2]

27. GHG emissions and removals for the BUR covering the 2000–2016 inventories were estimated using mostly tier 1 methodologies from the 2006 IPCC Guidelines for all sectors. Tier 2 methodologies were used for some categories in the IPPU, AFOLU and waste sectors. Such categories include lime production (2.A.2), iron and steel production (2.C.1), forest land remaining forest land (3.B.1.a) and managed waste disposal sites (4.A.1). A combination of tier 1 and tier 2 methodologies was used for the categories domestic wastewater treatment and discharge (4.D.1) and industrial wastewater treatment and discharge (4.D.2) in the waste sector. The TTE commends Mauritius for its use of the 2006 IPCC Guidelines.

28. Detailed information on AD and EFs used and the sources for each sector was clearly reported in the BUR. The TTE commends the transparent presentation in the BUR of the information on the sources of AD and EFs in tabular format for each sector.

29. Information on the Party's total GHG emissions by gas for 2016 is outlined in table 1 in Gg CO_2 eq. It shows an increase in emissions of 73.7 per cent without land and HWP since 2000 (3,000.34 Gg CO_2 eq).

Table 1
Greenhouse gas emissions by gas of Mauritius for 2016

Gas	*GHG emissions Gg CO_2 eq including land and HWP[a]*	*% change 2000–2016*	*GHG emissions Gg CO_2 eq excluding land and HWP[a]*	*% change 2000–2016*
CO_2	3 830.56	107.3	4 160.26	80.5
CH_4	579.60	19.0	579.60	19.0
N_2O	189.10	17.3	189.10	17.3
HFCs	282.10	487.8	282.10	487.8
PFCs	NA	NA	NA	NA

[2] https://unfccc.int/BURs.

Gas	*GHG emissions Gg CO_2 eq including land and HWP[a]*	*% change 2000–2016*	*GHG emissions Gg CO_2 eq excluding land and HWP[a]*	*% change 2000–2016*
SF_6	NA	NA	NA	NA
Other	NA	NA	NA	NA
Total	4 881.36	91.9	5 211.06	73.7

[a] 2006 IPCC Guidelines AFOLU category 3.B (land) and, if reported, 3.D (HWP (3.D.1) and other emissions (3.D.2)).

30. Information on other emissions (such as CO, NO_X, NMVOCs and SO_X) was not reported in Mauritius' BUR. During the technical analysis, the Party clarified that, owing to its very limited resources, it focused on the three main GHGs rather than on indirect emissions, which were not significant for the country. However, subject to the availability of resources, such emissions may be considered in future reporting.

31. Mauritius applied notation keys in some tables where numerical data were not provided. For example, Mauritius used notation keys in the summary of the completeness of the inventory provided in table 2 of its NIR.

32. The use of notation keys was not consistent with the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties. The TTE noted that Mauritius did not use notation keys in its GHG inventory, but instead used dashes (–) and the value zero where a notation key should have been used (e.g. in appendices 3.1 and 3.2 to the NIR). It was not clear to the TTE whether the value zero represents the actual value zero, a number rounded to zero or a notation key ("NA", "NE" or "NO"). The TTE also noted that in some instances the incorrect notation key was used (e.g. "NA" was used for SF_6 and PFCs from other product uses (2.G.2) whereas "NE" may have been more appropriate). During the technical analysis, Mauritius clarified that it has a good understanding of the use of notation keys and is aware that notation keys should have been used instead of dashes in tables 152–153 in appendix 3.1 to its NIR. Mauritius also clarified that tables 154–159 in appendix 3.2 were generated using the IPCC inventory software, which does not allow for the inclusion of notation keys and generates zeros automatically. Mauritius informed the TTE that this will be corrected in future reporting.

33. Mauritius reported comparable information addressing the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF and the sectoral reporting tables annexed to the Revised 1996 IPCC Guidelines.

34. The shares of emissions that different sectors contributed to the Party's total GHG emissions excluding land and HWP (category 3.B and, if reported, 3.D), as reported by the Party, in 2016 are reflected in table 2.

Table 2
Shares of greenhouse gas emissions by sector of Mauritius for 2016

Sector	*GHG emissions (Gg CO_2 eq)*	*% share[a]*	*% change 2000–2016*
Energy	4 182.62	80.3	80.0
IPPU	311.18	6.0	342.5
AFOLU	–171.62	NA	44.9
Livestock (category 3.A)	37.53	0.7	3.8
Land (category 3.B)	–331.59	NA	–27.7
Aggregate sources and non-CO_2 emissions sources on land (category 3.C)	120.55	2.3	9.7
HWP and other emissions (category 3.D)	1.89	NA	31.3
Waste	559.18	10.7	21.3

[a] Share of total without 2006 IPCC Guidelines AFOLU category 3.B (land) and, if reported, 3.D (HWP (3.D.1) and other emissions (3.D.2)).

35. Mauritius reported information on its use of GWP values consistent with those provided by the IPCC in its AR2 based on the effects over a 100-year time-horizon of GHGs.

36. For the energy sector, information was clearly reported on GHG emissions, methodological tier levels, AD and their sources, EFs, key categories, notation keys used and other information specific to the sector. Electricity generation (1.A.1.a.i) and road transport (1.A.3.b) were the most significant sources of emissions and key categories under this sector. Emissions from electricity generation have increased by 105.7 per cent since 2000 owing to increased coal and fuel oil consumption. Emissions from road transport have increased by 102.8 per cent since 2000 mainly owing to the increase in the consumption of diesel by buses and gasoline by cars. Emissions were calculated using a tier 1 approach but with country-specific net calorific values for most categories except for international aviation and navigation (bunker fuels).

37. The TTE noted that emissions from road transport increased from 2000 to 2013 but decreased significantly in 2014. The TTE also noted that the Party used two different data sets (2000–2013 and 2014–2016) to estimate AD on fuel consumption for road transport, which caused an outlier in the AD and emissions between 2013 and 2014. During the technical analysis, the Party clarified that it will cross-check for data inconsistencies in future reporting.

38. Furthermore, the TTE noted that emissions from iron and steel (1.A.2.a) were constant across the time series (1.78 Gg CO_2 eq for 2000–2016). During the technical analysis, the Party provided relevant clarification and explained that the AD for liquid fuels (gasoline and diesel) were estimated using the model for analysis of energy demand, resulting in a nearly constant value for the amount of fuel used in this category. However, the TTE also noted some inconsistencies when comparing the iron and steel category with the trends in the iron and steel production category in the IPPU sector, for which emissions increased between 2000 and 2016. During the technical analysis, the Party affirmed that it will prioritize correcting, minimizing and explaining observed inconsistencies in future reporting.

39. For the IPPU sector, information was clearly reported on GHG emissions, methodological tier levels, AD and their sources, EFs, key categories, notation keys used and other information specific to the sector. GHG emissions have increased annually, at a more moderate pace (by 15.5 per cent) between 2000 and 2004 and more intensely (by 283.0 per cent) from 2004 to 2016. Product uses as substitutes for ozone-depleting substances (2.F) is the category that contributed most to the increase in emissions in 2000–2016 and in 2016 represented 90.6 per cent of the total GHG emissions from the sector. Emissions from iron and steel production (2.C.1) increased slightly (by 9.4 per cent) from 2000 to 2016, and iron and steel production was the second largest emissions source in the IPPU sector in 2016, representing 6.9 per cent of total GHG emissions. Mauritius reported that emissions of SF_6 and PFCs have been not estimated, as it considers that they would be insignificant.

40. Information on the reason for the increase in the consumption of fluorinated gases since 2013 was not clearly reported in Mauritius' BUR. During the technical analysis, the Party clarified that it embarked on a HCFC phase-out management plan in 2012, which was intended to limit the use of HCFCs from 2013 onward through a quota system that applied to a restricted number of importers with the aim of achieving a complete phase-out by 2025. The Party also clarified that, as there is no domestic production of appliances, the increase in HFC emissions between 2012 and 2013 was due to a shift from importing appliances that use HCFC refrigerants to importing appliances that use HFCs.

41. For the 2006 IPCC Guidelines AFOLU categories 3.A and 3.C, enteric fermentation (CH_4) and agricultural soils (N_2O) were identified as key categories and the most relevant emissions sources in the sector. The Party used EFs from the 2006 IPCC Guidelines. Mauritius also reported on methodological tier levels, AD and their sources, notation keys used and other information specific to the sector. Emissions from livestock (category 3.A) increased by 3.8 per cent between 2000 and 2016 and emissions from aggregate sources and non-CO_2 emissions sources on land (category 3.C) increased by 9.7 per cent between 2000 and 2016. Information was reported on the number of livestock (category 3.A) and the amount of fertilizer applied to soils (category 3.C.4) for 2000, 2005, 2010 and 2014–2016.

42. For land and HWP (categories 3.B and 3.D), Mauritius reported annual GHG emissions and removals for 2000–2016. Overall, the net removals from land and HWP fluctuated between 298.67 Gg CO_2 eq in 2010 and 458.89 Gg CO_2 eq in 2000.

43. Information on the area data for land uses and land-use changes (e.g. changes between different forest species, changes between annual and perennial cropland, possible changes in addition to the conversion of forest land to other land uses) was not reported in Mauritius' BUR. In its BUR and during the technical analysis, the Party clarified that it has developed a consistent representation of its land using the areas of the different land-use categories and the changes between the land-use categories. However, Mauritius informed the TTE that, as there are no formalized land-use matrices to track land-use changes over time and private forest land is not surveyed on a regular basis, disaggregated information was not available. Under the Capacity-building Initiative for Transparency project, an inventory of privately owned forest and non-forest tree cover will, however, be compiled and it is expected that forest-related AD will be refined.

44. For the waste sector, information was clearly reported on GHG emissions, methodological tier levels, AD and their sources, EFs, notation keys used and other information specific to the sector. Solid waste disposal (CH_4) and wastewater treatment and discharge (CH_4) were identified as key categories and the most relevant emissions sources in the sector. Emissions from solid waste disposal (category 4.A) increased by 45.6 per cent between 2000 and 2016. For wastewater treatment and discharge (category 4.D), emissions from domestic and industrial wastewater decreased by 3.8 and 29.2 per cent respectively between 2000 and 2016.

45. Information on CH_4 and N_2O emissions from waste incineration was not reported and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that these emissions were assumed to be negligible but will be considered in future reporting.

46. The BUR provides an update to some of the GHG inventories reported in the Party's previous NCs. The information reported provides an update of inventories reported in the Party's NC2 and NC3, which address anthropogenic emissions and removals for 1990–2006 and 2006–2013 respectively. The update was carried out for 2000–2013 using the methodologies contained in the 2006 IPCC Guidelines, thus generating a consistent 17-year time series (2000–2016). The Party reported that it recalculated emissions for all sectors for 2000–2013 owing to changes in methodologies and tiers (consistent with the 2006 IPCC Guidelines), improvements in coverage of AD, disaggregation of some categories, and an updated approach for developing consistent land-use matrices and refining land representation.

47. Information on an update of the 1990–1999 time series (as reported in the NC2) was not reported in Mauritius' BUR and the reason for this was not clear to the TTE. In addition, the Party did not report the impact of recalculations for estimated emissions for 2000–2013. During the technical analysis, the Party clarified that it did not perform a recalculation of the 1990–1999 time series owing to a lack of resources. Furthermore, the Party noted that it requires capacity-building support to recalculate emissions, generate consistent time series covering all sectors and better understand the impacts of such recalculations on GHG emissions.

48. Mauritius described in its BUR the institutional framework for the preparation of its 2000–2016 GHG inventory. The Party reported that the Environment and Climate Change Division of the Department of Climate Change under the Ministry of Environment, Solid Waste Management and Climate Change is the governmental body responsible for its climate change policy and GHG inventory, which is prepared by the Department of Climate Change under the Ministry. Mauritius reported that the institutional arrangements for the GHG inventory were based on those used to prepare the NIR for its NC3, whereby six technical working groups were established with each group including representatives of leading institutions. Data collection in each working group was coordinated by a team leader and the Department of Climate Change was responsible for overall coordination. The technical working groups cover energy industries, transport, energy (other), IPPU, AFOLU and waste. In addition, the Party reported that there is a need to develop a sustainable solution to address challenges in relation to generating, sharing and archiving reliable data.

49. Mauritius clearly reported that a key category analysis was performed for both the level of emissions and the trend in emissions. The Party identified 12 and 13 key categories for the level of emissions and the trend in emissions respectively. Energy industries – solid fuels (CO_2), road transportation (CO_2) and energy industries – liquid fuels (CO_2) were identified as the top three key categories for the level of emissions whereas energy industries – solid fuels (CO_2), energy industries – liquid fuels (CO_2) and forest land remaining forest land (CO_2) were identified as the top three key categories for the trend in emissions.

50. The BUR provides information on QA/QC measures for all sectors. The information reported includes quality checks that are applied by category, such as cross-verification between data provided by email (for example by the Central Electricity Board and independent power producers) and data reported by Statistics Mauritius, and cross-verification between EFs provided by institutional authorities and the default values in the 2006 IPCC Guidelines. Mauritius reported QA and QC checklists in appendix 5 (table 160) and appendix 6 (table 161) to the NIR. The TTE commends the Party for reporting information on QA/QC measures.

51. The TTE noted, however, that Mauritius did not demonstrate that it applied these checklists to the inventory; no information was reported to indicate whether the tasks were completed, corrective measures were taken or recommendations were made (see table 160, columns 4 and 5, and table 161, columns 2 and 3). During the technical analysis, the Party clarified that the QA and QC procedures were annexed to the NIR as a template for use in future inventories. Mauritius also provided the TTE with a copy of a QA report conducted by an independent assessor, which contained several suggestions for improvements to the NIR.

52. Mauritius reported information on CO_2 fuel combustion emissions using both the sectoral and the reference approach. The difference between the estimates calculated using the two approaches was reported as 7.97 per cent for 2016. The possible cause for this difference was identified as the use of data for industries that were not included in Mauritius' energy balance. The Party identified improvements in its reporting such as reviewing and updating information in the energy balance as a capacity-building need.

53. Information on the value of fuel combustion emissions (in Gg CO_2) estimated under the reference approach was not reported in Mauritius' BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that the fuel combustion emissions estimated under the sectoral and reference approach for 2016 are 4,128.90 Gg CO_2 and 4,457.88 Gg CO_2 respectively.

54. Information was clearly reported on emissions from international aviation and marine bunker fuels. The Party provided CO_2, CH_4 and N_2O emission estimates for international aviation and marine bunker fuels for the entire time series (2000–2016). The total GHG emissions estimated for this category increased by 52.6 per cent between 2000 and 2016.

55. Mauritius reported information on the uncertainty assessment (level and trend) of its national GHG inventory. The uncertainty analysis was based on the tier 1 approach and covers all categories (except the land sector) and all direct GHGs. The results obtained, as reported in the BUR, reveal that the level uncertainty for emissions is 4.6 per cent excluding the land sector and the trend uncertainty is 6.4 per cent excluding the land sector.

56. Information on uncertainties in the land sector were not reported in Mauritius' BUR. However, the Party provided relevant clarification in its BUR, stating that this is owing to a lack of information on the uncertainty of the AD used, in particular those on land area. During the technical analysis, Mauritius further clarified that, as there are no formalized land-use matrices for tracking land-use changes over time nor any surveys conducted on private forest land on a regular basis, disaggregated information is not available. The uncertainty associated with AD for land representation is planned as an improvement for future reporting.

57. The TTE noted that the transparency of the information reported on GHG inventories could be further enhanced by addressing the areas noted in paragraphs 25, 30, 32, 37, 38, 40, 43, 45, 47, 53 and 56 above, which could facilitate a better understanding of the information reported on GHG inventories.

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

58. As indicated in table I.2, Mauritius reported in its BUR, mostly in accordance with paragraphs 11–13 of the UNFCCC reporting guidelines on BURs, information on mitigation actions and their effects, to the extent possible.

59. The information reported provides an overview of the Party's mitigation actions and their effects. In its BUR, Mauritius reported information on its national context and framed its national mitigation planning and actions in the context of its policies, plans, road maps, legislative measures and NDC. Mauritius reported that climate change has been mainstreamed in and integrated into its development plans, including mitigation. Mauritius set a target in its 2021 updated NDC to reduce GHG emissions by 40 per cent by 2030 compared with the 'business as usual' scenario (equivalent to 2,893 kt CO_2 eq of avoided emissions), which is significantly more ambitious than that set in the intended nationally determined contribution submitted in 2015 (to reduce GHG emissions by 30 per cent by 2030 compared with the 'business as usual' scenario). Most of the mitigation actions reported in the BUR are in the energy and AFOLU sectors.

60. The Party reported a summary of its mitigation actions in tabular format in accordance with decision 2/CP.17, annex III, paragraph 11. The Party also reported information on its mitigation actions in narrative format.

61. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Mauritius reported the names of mitigation actions and coverage (sectors and gases) for all mitigation actions. A description of all mitigation actions, as well as information on qualitative and quantitative goals for mitigation actions in the energy industries, transport and forestry sectors, was provided in the BUR.

62. Information on progress indicators for all mitigation actions and quantitative goals for mitigation actions in the energy efficiency, IPPU, agriculture and waste sectors was not clearly reported in Mauritius' BUR. During the technical analysis, the Party clarified that it requires capacity-building to formulate and monitor progress indicators and quantitative goals for specific mitigation actions. However, the Party affirmed that, under the NAMA project (Nationally Appropriate Mitigation Actions for Low Carbon Islands Development Strategy), an online MRV platform (MauNDC Registry) is being established to track the progress of mitigation actions. Once they have received training on the use of this platform, several stakeholders will be involved in reporting on progress indicators and quantitative goals for specific mitigation actions.

63. Mauritius reported information on methodologies and assumptions for some mitigation actions. Information on objectives and steps taken or envisaged to achieve such actions was reported for all mitigation actions.

64. Information on methodologies and assumptions for some mitigation actions (e.g. mitigation action 2 in the energy sector, mitigation action 3 in the transport sector and mitigation actions 6–7 in the forestry sector) was not reported in Mauritius' BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that the details on methodologies and assumptions for some mitigation actions were not available during the preparation of its BUR. The Party also clarified that devising and using appropriate methodologies and assumptions for the quantification of potential emission reductions is an area in which the Party needs capacity-building. It is the Party's expectation that the ongoing NAMA project will enable it to carry out mitigation scenario analysis using appropriate methodologies and assumptions for all sectors.

65. The mitigation actions in the energy sector focus mainly on reducing dependency on fossil fuels, encouraging the use and scaling up of renewable energy sources and managing energy demand through energy efficiency measures while ensuring energy security. These actions were reported variously as implemented, ongoing and planned (undergoing a feasibility study). The Party reported the expected results of implementing one of its mitigation actions ("Accelerating the transformation shift to a low-carbon economy") as a reduction in GHG emissions of 4.27 Mt CO_2 eq over the lifetime of the projects implemented as part of this mitigation action.

66. The mitigation action in the transport sector focuses mainly on improving electricity-powered public transport and was reported as ongoing and expected to be completed by the end of 2022. The Party reported the expected results of implementing its mitigation action as a total reduction in GHG emissions of 28 kt CO_2 eq by 2030.

67. The mitigation actions in the IPPU sector focus mainly on phasing out chlorofluorocarbons and HFCs in the refrigeration and air-conditioning sector by developing and implementing a national programme, phase-out management plan, legal framework, and training and public awareness programmes.

68. The mitigation actions in the agriculture sector focus mainly on developing organic farming, recycling and composting agricultural and animal waste, using renewable energy sources in farming, optimizing fertilizer use, promoting agroforestry and using high biomass sugar cane varieties as a renewable source of energy. Two mitigation actions on animal livestock management were reported as ongoing. The Party reported the expected results of implementing those mitigation actions as a reduction of 20 per cent and 1–5 per cent in total GHG emissions accounted for animal manure management and livestock respectively.

69. The mitigation actions in the forestry sector focus mainly on reforestation, afforestation and tree planting, forest protection, forest restoration and agroforestry and were reported as ongoing. The Party reported the expected results of these mitigation actions, including planting at least 100,000 trees annually up until 2024, creating at least one new mini-forest or urban forest by 2030 and three new endemic forests by 2024, and restoring 75 ha mountain reserves, 500 ha degraded riverine reserves and 1,000 ha plantation forest and native forest by 2030.

70. The mitigation action in the waste sector focuses mainly on maximizing resource recovery and recycling, as well as tapping the energy recovery potential of waste, and was reported as ongoing.

71. Information on progress of implementation of the underlying steps taken or envisaged for most of the mitigation actions was not reported in Mauritius' BUR. Information on results expected or achieved was not reported for some mitigation actions in the energy, IPPU and waste sectors. During the technical analysis, the Party clarified that it needs capacity-building to compile and report information in line with the reporting requirements.

72. Mauritius provided information on its involvement in international market mechanisms as a Party to the Kyoto Protocol. Mauritius documented eight CDM projects approved by its designated national authority, all of which were registered under the UNFCCC CDM process. The statistics include information on the total number of projects, sectors covered and quantity of potential annual emission reductions.

73. Mauritius reported information on its domestic MRV arrangements in accordance with decision 2/CP.17, annex III, paragraph 13. The information reported indicates that currently there is no efficient and complete system for tracking mitigation actions and reporting on the status and progress of mitigation action implemented. Mauritius reported that it is in the process of designing and developing a framework to ensure MRV approaches to individual mitigation actions and their effects while also tracking support received for their implementation.

74. The TTE noted that the transparency of the information reported on mitigation actions could be enhanced by addressing the areas noted in paragraphs 62, 64 and 71 above, which could facilitate a better understanding of the information reported on mitigation actions.

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

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

76. Mauritius reported information on constraints and gaps, and related financial, technical and capacity-building needs in accordance with decision 2/CP.17, annex III, paragraph 14. In its BUR, Mauritius identified the following as constraints: limited

availability of information and data on climate change activities; inadequate institutional arrangements for collecting, sharing and managing data relating to climate change activities and coordinating various institutions for climate actions; limited human resources for design, implementation, assessment and transparency of mitigation actions; and limited access to clean energy sources and climate-friendly technologies. Mauritius reported that its technical and capacity-building needs are primarily in the areas of GHG inventory and an MRV, and in the energy, transport, IPPU, forestry, agriculture, solid waste and liquid waste sectors. Furthermore, the Party reported a total financial need of USD 6.5 billion to implement the NDC targets.

77. Information on specific financial needs to address identified constraints and gaps was not reported in Mauritius' BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that it had not been able to quantify those needs and would require technical assistance to do so.

78. Mauritius reported information on financial resources, capacity-building and technical support received in accordance with decision 2/CP.17, annex III, paragraph 15. In its BUR, Mauritius reported that it received USD 91,172,213 from international agencies, including USD 852,000 from the Global Environment Facility, which included allocation for preparing both its first BUR and its NC4. Mauritius reported in its BUR (table 5.4) a list of projects implemented with international support in areas including mainstreaming climate change into public policies, preparing transformational climate change projects for financing, promoting electricity-based public transport, designing NAMAs, undertaking climate change vulnerability and adaptation assessment, promoting climate-smart agriculture and improving sustainable tourism. The information reported includes details of funding agency, project title/objective, date approved and funding amount. The projects received support from the Green Climate Fund, the Global Environment Facility, the Adaptation Fund, the French Development Agency and the European Union. The information reported indicates that Mauritius received capacity-building and technical support from the Southern Africa Regional MRV Network to facilitate the reporting of its GHG inventories.

79. Information on technology transfer support received was not clearly reported in Mauritius' BUR and the reason for this was not clear to the TTE. Furthermore, information reported in the BUR (table 5.4) did not allow for the support received for specific climate change projects to be categorized (i.e. as financial, technology transfer, technical or capacity-building). During the technical analysis, the Party clarified that currently it has no efficient system for compiling, tracking and analysing data and information on support received for various climate change activities in compliance with the reporting guidelines. Mauritius is in the process of establishing an NDC registry that will allow it to easily track, categorize and report support received in future reporting.

80. Mauritius reported information on nationally determined technology needs with regard to the development and transfer of technology in accordance with decision 2/CP.17, annex III, paragraph 16. In its BUR, Mauritius reported technology needs relating to clean energy, refrigerants, a green transport system and wastewater.

81. Information on whether Mauritius' technology needs were identified following the nationally determined process and approach was not clearly reported in Mauritius' BUR. During the technical analysis, the Party clarified that it was not able to conduct an in-depth technology needs assessment owing to lack of capacity and resources.

82. The TTE noted that the transparency of the information reported on needs and support received could be further enhanced by addressing the areas noted in paragraphs 77, 79 and 81 above which could facilitate a better understanding of the information reported on needs and support received.

5. Any other information

83. Mauritius reported some information on existing initiatives to provide context for the other information presented in its BUR. Such initiatives include renewable energy programmes, the Capacity-building Initiative for Transparency, the development of country-specific EFs and the Nationally Appropriate Mitigation Actions for Low Carbon Islands Development Strategy for Mauritius.

D. Identification of capacity-building needs

84. In consultation with Mauritius, the TTE identified the following needs for capacity-building that could facilitate the preparation of subsequent BURs and participation in ICA, and the Party's transition to implementing the ETF:

(a) Capacity-building needs relating to the national GHG inventory:

(i) Improve data collection for energy use by households and taxis since 2013;

(ii) Develop a consistent time series for the AD used for road transport emission estimates;

(iii) Improve data collection in relation to estimating emissions from fuel combustion using both the reference approach and the sectoral approach;

(iv) Improve the methodology used to refine data for the iron and steel category (1.A.2.a);

(v) Improve arrangements for collecting and managing data for the livestock categories;

(vi) Improve national arrangements for collecting, sharing, archiving and documenting data for estimating non-CO_2 emissions from land;

(vii) Improve execution of the chosen methodology for calculating emissions from the livestock categories;

(viii) Improve information and data on land use and land-use changes and their associated uncertainties;

(ix) Enhance and strengthen national institutional capacity to improve the collection and management of data for the AFOLU sector for Rodrigues Island, as well as cooperation between relevant departments;

(x) Enhance national capacity to develop country-specific biochemical oxygen demand values for wastewater, and to refine data on solid waste disposal for 1960–1999;

(xi) Enhance national capacity to develop country-specific EFs across all sectors of the inventory;

(xii) Enhance national capacity to estimate and report on the impacts of recalculations at the category level and also on the overall impact on the GHG inventory time series;

(xiii) Enhance national capacity to implement planned improvements in all sectors in the inventory;

(xiv) Enhance national capacity to implement permanent institutional arrangements for preparing the GHG inventory;

(b) Capacity-building needs relating to mitigation actions and their effects:

(i) Enhance national capacity to identify and monitor the progress indicators of each specific mitigation action to serve as inputs to the online MRV platform currently being established;

(ii) Enhance national capacity to quantify emission reductions from the mitigation actions in all sectors, in particular the forestry sector;

(iii) Enhance national capacity to develop and report appropriate methodologies and assumptions associated with mitigation actions to quantify, track and report their emission reductions, achievements and results;

(c) Capacity-building needs relating to needs and support:

(i) Enhance national technical capacity to estimate and report the financial needs to address identified constraints and gaps for climate change activities;

(ii) Enhance national capacity to identify technology needs to address climate change;

(iii) Enhance national capacity to develop efficient processes and tools for tracking and reporting the type of support received (financial, technology transfer, technical and capacity-building) for specific climate change activities;

(iv) Enhance national capacity to further develop sound institutional arrangements for tracking and reporting support received (finance, technology and capacity-building);

(d) Capacity-building needs relating to cross-cutting issues:

(i) Enhance the technical capacity of those involved in the QA/QC and approval processes for the BUR and other future reports;

(ii) Enhance national capacity to prepare for and implement the requirements of the ETF.

85. The TTE noted that, in addition to those identified during the technical analysis, Mauritius reported several capacity-building needs for institutions and their staff engaged in GHG inventory preparation, including theoretical training and practical exercises on collecting data; using various databases, tools and systems; understanding international reporting and review requirements; and implementing an MRV framework.

III. Conclusions

86. The TTE conducted a technical analysis of the information reported in the first BUR of Mauritius in accordance with the UNFCCC reporting guidelines on BURs and concludes that the information reported is partially consistent. It provides an overview of national circumstances and institutional arrangements relevant to the preparation of BURs and NCs on a continuous basis; the national inventory of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol, including an NIR; mitigation actions and their effects, including associated methodologies and assumptions; constraints and gaps, and related technical and capacity-building needs, including a description of support needed and received; the level of support received to enable the preparation and submission of BURs; and domestic MRV. During the technical analysis, additional information was provided by Mauritius on institutional arrangements and QA/QC procedures. The TTE concluded that the information analysed is mostly transparent.

87. Mauritius reported information on the institutional arrangements relevant to the preparation of its BURs. The Department of Climate Change under the Ministry of Environment, Solid Waste Management and Climate Change coordinated a steering committee, a technical committee and six sectoral technical working groups to prepare its NCs and BUR. The Party is taking significant steps to establish institutional arrangements that enable sustainable preparation of its BURs, such as making organizational improvements and establishing knowledge-sharing procedures to facilitate sectoral information transfer.

88. In its first BUR, submitted in 2021, Mauritius reported information on its national GHG inventory for 2000–2016. This included GHG emissions and removals of CO_2, CH_4 and N_2O for all relevant sources and sinks, as well as information on HFCs, PFCs and SF_6. The inventory was developed on the basis of the 2006 IPCC Guidelines, and tier 1 methodologies and default EFs were used for most categories. The total GHG emissions for 2016 were reported as 5,211.06 Gg CO_2 eq (excluding land and HWP) and 4,881.36 Gg CO_2 eq (including land and HWP). Twelve key categories and main gases were identified in the level assessment, with energy industries – solid fuels (1.A.1) and CO_2 as the top key category and main gas respectively. Information on other emissions (such as CO, NOx, NMVOCs and SOx) and some AD for the AFOLU sector (such as number of livestock, quantity of fertilizer used and area data for land use and land-use changes) were not provided owing to resource constraints and/or difficulties in obtaining the necessary data, as clarified by the Party during the technical analysis.

89. Mauritius reported information on mitigation actions and their effects in both tabular and narrative format, including its GHG emission reduction target, as mentioned in the updated NDC, and framed its national mitigation planning and actions in the context of its policies, plans, road maps and legislature measures. Mauritius reported planned, ongoing and completed actions in the energy, transport, IPPU, agriculture, forestry and waste sectors. The mitigation actions focus on reducing dependency on fossil fuels, scaling up renewable energy sources, promoting energy efficiency measures, promoting electricity-based public transport, phasing out chlorofluorocarbons and HFCs in the refrigeration and air-conditioning sector, managing animal and agricultural waste, protecting and increasing forest cover and managing waste. The Party reported the progress of implementation for all of its mitigation actions and the results achieved or expected for some of its mitigation actions, including emission reductions and estimated outcomes. The highest emission reduction of 4.27 million t CO_2 eq over the lifetime of the projects implemented was reported for one of the mitigation actions in the energy sector. The Party also reported information on its involvement in international market mechanisms and on MRV arrangements. Information on quantitative goals, progress indicators, methodologies and assumptions, and results achieved or expected for some mitigation actions were not provided owing to difficulties in obtaining the necessary data for those actions, as clarified by the Party during the technical analysis.

90. Mauritius reported information on key constraints, gaps, proposed actions and related technical and capacity-building needs in the areas of GHG inventory and an MRV, and in the energy, transport, IPPU, forestry, agriculture, solid waste and liquid waste sectors. Information was reported on the financial, technical and capacity-building support received for policy formulation, public transportation, project development for NAMA on climate finance, climate change adaptation, climate-smart agriculture, sustainable tourism and the GHG inventory. The Party also reported that it received financial support of USD 852,000 from the Global Environment Facility for preparing its NC4 and its first BUR. Information on technology needs was not clearly reported owing to insufficient capacity and resources to conduct an in-depth technology needs assessment, as clarified by the Party during the technical analysis. The Party also clarified that it has no efficient system for compiling, tracking and analysing data and information on support needed or received in compliance with the reporting guidelines but is in the process of establishing an NDC registry that would facilitate reporting on support needed and received in the future.

91. The TTE, in consultation with Mauritius, identified 23 capacity-building needs listed in chapter II.D above and needs for capacity-building that aim to facilitate reporting in accordance with the UNFCCC reporting guidelines on BURs and participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention. The Party, in consultation with the TTE, also identified one need for capacity-building to facilitate transition to the ETF listed in paragraph 84(d)(ii) above. Mauritius prioritized the capacity-building needs referred to in paragraph 84(a)(ii–v), (a)(vii–xii), (a)(xiv), (b)(ii–iii), (c)(ii–iv) and (d)(ii) above.

Annex I

Extent of the information reported by Mauritius in its first biennial update report

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

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
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, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	No	Mauritius submitted its first BUR in December 2021; the GHG inventories reported are for 2000–2016.
Decision 2/CP.17, annex III, paragraph 4	Non-Annex I Parties should use the methodologies established in the latest UNFCCC guidelines for the preparation of NCs from non-Annex I Parties approved by the Conference of the Parties or those determined by any future decision of the Conference of the Parties on this matter.	Yes	Mauritius used the 2006 IPCC Guidelines.
Decision 2/CP.17, annex III, paragraph 5	The updates of the section on 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 EF may be made in the subsequent full NC.	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) The tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF;	Yes	Comparable information was reported in tables in annex 2 to the BUR and in section 5 of the NIR.
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines.	Yes	Comparable information was reported in appendix 3.2 to the NIR.
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 its previous NCs.	Partly	The time series reported in the BUR does not include 1995 (the inventory year reported in the NC1) or 1990–1999 (reported in the NC2).
Decision 2/CP.17, annex III, paragraph 8	Non-Annex I Parties that have previously reported on their national GHG inventories contained in their NCs are encouraged to submit summary information tables of inventories for previous submission years (e.g. for 1994 and 2000).	Partly	This information was not reported for 1995 (the inventory year included in the NC1) or 1990–1999 (reported in the NC2).
	The inventory section of the BUR should consist of an NIR as a summary or as an update of the information contained in decision 17/CP.8, annex,		

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 9	chapter III (National greenhouse gas inventories), including:		
	(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);	Partly	Comparable information was reported in annex 2 to the NIR. Information on the precursor gases (part of table 1) was not included.
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF_6).	Partly	Comparable information was reported in annex 2 to the NIR but emissions were not reported on a gas-by-gas basis or in units of mass.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	Yes	Mauritius submitted an NIR as an annex to its BUR.
Decision 17/CP.8, annex, paragraph 12	Non-Annex I Parties are also encouraged, to the extent possible, to undertake any key source analysis as indicated in the IPCC good practice guidance to assist in developing inventories that better reflect their national circumstances.	Yes	
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:		
	(a) CO_2;	Partly	Emissions for some subcategories (e.g. urea application, biomass burning in grasslands and in other land, fugitive emissions from fuels) were not reported.
	(b) CH_4;	Partly	Emissions from waste incineration were not reported.
	(c) N_2O.	Partly	Emissions from waste incineration were not reported.
Decision 17/CP.8, annex, paragraph 15	Non-Annex I Parties are encouraged, as appropriate, to provide information on anthropogenic emissions by sources of:		
	(a) HFCs;	Yes	
	(b) PFCs;	Yes	
	(c) SF_6.	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;	No	
	(b) NO_X;	No	

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	(c) NMVOCs.	No	
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as SO_X, and included in the Revised 1996 IPCC Guidelines may be included at the discretion of Parties.	No	
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 approach and to explain any large differences between the two approaches.	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;	Yes	
	(b) Marine bunker fuels.	Yes	
Decision 17/CP.8, annex, paragraph 20	Non-Annex I Parties wishing to report on aggregated GHG emissions and removals expressed in CO_2 eq should use the GWP provided by the IPCC in its AR2 based on the effects of GHGs over a 100-year time-horizon.	Yes	Mauritius used the GWP provided in the AR2.
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 EFs and AD. 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, EFs and AD 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	Mauritius used the 2006 IPCC Guidelines. Tier 1 methodology was mainly used for almost all categories, while tier 2 was used for some categories in the IPPU, AFOLU and waste sectors.
	(b) Explanation of the sources of EFs;	Yes	
	(c) Explanation of the sources of AD;	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	
	(i) Source and/or sink categories;		
	(ii) Methodologies;		

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	(iii) EFs;		
	(iv) AD;		
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building.	Yes	
Decision 17/CP.8, annex, paragraph 22	Each non-Annex I Party is encouraged to use tables 1–2 of the guidelines annexed to decision 17/CP.8 in reporting its national GHG inventory, taking into account the provisions established in paragraphs 14–17. In preparing those tables, Parties should strive to present information that is as complete as possible. Where numerical data are not provided, Parties should use the notation keys as indicated.	Partly	Notation keys were not widely used. A dash (–) or the value zero was used where "NO", "NE" or "NA" should have been used.
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	The uncertainty assessment was reported in the NIR but did not include the land sector.
	(b) Underlying assumptions;	Yes	
	(c) Methodologies used, if any, for estimating these uncertainties.	Yes	

Note: 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, paras. 3–10 and 41(g). Further, as per para. 3 of those guidelines, non-Annex I Parties are to submit updates of their national GHG inventories in accordance with paras. 8–24 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties, 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.

Table I.2
Identification of the extent to which the elements of information on mitigation actions are included in the first biennial update report of Mauritius

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 11	Non-Annex I Parties should provide information, in tabular format, on actions to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol.	Yes	
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or group 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	Partly	Information on quantitative goals (for some mitigation actions) and progress indicators (for all

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	gases), quantitative goals and progress indicators;		mitigation actions) was not reported.
	(b) Information on:		
	(i) Methodologies;	Partly	Information on methodologies was not reported for some mitigation actions.
	(ii) Assumptions;	Partly	Information on assumptions was not reported for some mitigation actions.
	(c) Information on:		
	(iii) Objectives of the action;	Yes	
	(iv) Steps taken or envisaged to achieve that action;	Yes	
	(d) Information on:		
	(i) Progress of implementation of the mitigation actions;	Yes	
	(ii) Progress of implementation of the underlying steps taken or envisaged;	Partly	Mauritius did not report underlying steps taken or envisaged for most mitigation actions.
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible;	Partly	Mauritius did not report on results achieved or expected for some of the mitigation actions in the energy, IPPU and waste sectors.
	(e) Information on international market mechanisms.	Yes	
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on domestic MRV arrangements.	Yes	

Note: 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, paras. 11–13.

Table I.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 Mauritius

Decision	*Provision of the reporting requirements*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on:		
	(a) Constraints and gaps;	Yes	
	(b) Related financial, technical and capacity-building needs.	Partly	Information on technical and capacity-building needs related to the identified constraints and gaps was reported, but information on financial needs was not.
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should provide:		
	(a) Information on financial resources received, technology transfer and capacity-building received;	Yes	Information on support received for specific climate change projects was reported,

Decision	*Provision of the reporting requirements*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
			however the type of support (financial, technology transfer, technical or capacity-building) was not clear.
	(b) Information on technical support received from the Global Environment Facility, Parties included in Annex II to the Convention 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 BUR.	Yes	
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:		
	(a) Nationally determined technology needs;	Partly	Limited information was reported on Mauritius' technology needs in relation to addressing climate change and on its nationally determined process for identifying those needs.
	(b) Technology support received.	No	

Note: 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, paras. 14–16.

Annex II

Reference documents

A. Reports of the Intergovernmental Panel on Climate Change

IPCC. 1997. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. JL Houghton, LG Meira Filho, B Lim, et al. (eds.). Paris: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency. Available at https://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html.

IPCC. 2000. *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. J Penman, D Kruger, I Galbally, et al. (eds.). Hayama, Japan: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency/Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/gp/english/.

IPCC. 2003. *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. J Penman, M Gytarsky, T Hiraishi, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf.html.

IPCC. 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. S Eggleston, L Buendia, K Miwa, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl.

B. UNFCCC documents

First BUR of Mauritius. Available at https://unfccc.int/BURs.

NC1, NC2 and NC3 of Mauritius. Available at https://unfccc.int/non-annex-I-NCs.