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Technical analysis of the first biennial update report of Belize submitted on 5 May 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 Belize, 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	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
AD	activity data
AFOLU	agriculture, forestry and other land use
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BUR	biennial update report
CGE	Consultative Group of Experts
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
F-gas	fluorinated gas
GEF	Global Environment Facility
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
HWP	harvested wood products
ICA	international consultation and analysis
IE	included elsewhere
IPCC	Intergovernmental Panel on Climate Change
IPCC good practice guidance	<i>Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories</i>
IPCC good practice guidance for LULUCF	<i>Good Practice Guidance for Land Use, Land-Use Change and Forestry</i>
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
N ₂ O	nitrous oxide
NA	not applicable
NC	national communication
NDC	nationally determined contribution
NE	not estimated
NIR	national inventory report
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
REDD+	reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks (decision 1/CP.16, para. 70)
Revised 1996 IPCC Guidelines	<i>Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories</i>
SF ₆	sulfur hexafluoride
TTE	team of technical experts
UNDP	United Nations Development Programme

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. Decision 14/CP.19, paragraph 7, outlines that developing country Parties seeking to obtain and receive payments for results-based actions can submit relevant information and data through the BUR in the form of a technical annex as per decision 2/CP.17, annex III, paragraph 19.¹ Decision 14/CP.19, paragraph 8, outlines that the submission of the technical annex is voluntary and in the context of results-based payments. As mandated by decision 14/CP.19, paragraphs 10–14, the technical annex submitted by Belize has been subject to technical analysis by two LULUCF experts who are included as members of a TTE. The results of the technical analysis are captured in a separate technical report.²
5. This summary report presents the results of the technical analysis of the first BUR of Belize, 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

6. In accordance with the mandate referred to in paragraph 2 above, Belize submitted its first BUR on 5 May 2021 as a stand-alone update report. The submission was made after December 2014, as Belize is a small island developing State and such States may submit BURs at their discretion.
7. A desk analysis of Belize's BUR was conducted remotely from 29 November to 3 December 2021 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: Ménouer Boughedaoui (former member of the CGE from Algeria), Manuel Estrada (Mexico), Lawrence Ibhafidon (Nigeria), Hassan Ibrahim (Singapore), Tsutomu Koyama (Japan), Rocio Lichte (Germany), Guadalupe Alejandra Martínez (Uruguay), Kakhberi Mdivani (Georgia), Awassada Phongphiphat (Thailand), Orlando Ernesto Rey Santos (Cuba), Dalia Abdelhamid Mahmoud Sakr (Egypt), Emma Salisbury (United Kingdom of Great Britain and Northern Ireland), Janka Szemesova (member of the CGE from Slovakia), Marcelo Theoto Rocha (Brazil), Maarten van der Eynden (Norway) and Robin White (Canada). Ms. Lichte and Mr. Rey Santos were the co-leads. The technical analysis was coordinated by Soheli Pasha and Amr Abdel-Aziz (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 Belize engaged in consultation³ on the identification of capacity-building needs for the

¹ The technical annex on the results of the implementation of REDD+ activities.

² FCCC/SBI/ICA/2021/TATR.1/BLZ.

³ The consultation was conducted via videoconferencing.

preparation of BURs and participation in the ICA process. Following the technical analysis of Belize's first BUR, the TTE prepared and shared a draft summary report with Belize on 22 August 2022 for its review and comment. Belize, in turn, provided its feedback on the draft summary report on 4 January 2023.

9. The TTE finalized the summary report in consultation with the Party on 5 January 2023.

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 Belize's 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.

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. Belize reported in its first BUR information on its national circumstances, including a description of its geography, ecology, climate, population and economy. Information was provided on the energy, waste and AFOLU sectors. The Party presented its national priorities related to climate change, emphasizing that it has committed to transitioning to low-carbon development while strengthening its resilience to the effects of climate change.

19. In addition, Belize provided a summary of relevant information regarding its national circumstances in tabular and graphical format.

20. Belize transparently reported in its first BUR information on its existing 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 history and governance of institutional arrangements related to climate change in the country, and the institutional arrangements relevant to the preparation of NIRs and to the GHG inventory system. The National Climate Change Committee is the entity that endorses climate change activities, policies and plans. The Committee is chaired by the Ministry of Fisheries, Forestry, the Environment, and Sustainable Development, and it has wide representation from line ministries, the private sector, civil society and academia. The National Climate Change Office under the Ministry is the UNFCCC national focal point. The office coordinates the preparation of submissions to meet reporting obligations under the Convention and the Paris Agreement, a process that includes stakeholder consultation and review by external experts.

21. Belize reported in its first BUR information on its domestic MRV arrangements. Development of the domestic MRV framework is under way, and activities are starting to be implemented under the framework to ensure structured and transparent reporting on climate change. The forestry and other land use sector has the most advanced MRV system for GHG reporting of the sectoral systems already in place. Efforts to enhance MRV arrangements have been integral to the preparation of Belize's first BUR. These efforts include stakeholder engagement to evaluate sectoral needs and gaps in the monitoring and reporting of climate change related activities. Further initiatives are planned, the aim of which is to enhance institutional arrangements for the national MRV system, develop indicators for tracking NDC targets and climate finance flows, build capacity to prepare GHG inventories and foster regional collaboration on climate action.

22. Belize reported in its BUR (section 2.5.2) information on its current initiatives for enhancing its domestic MRV system to facilitate the establishment of formal reporting processes. The initiatives relate to elaborating institutional arrangements for the preparation of NIRs, NCs and BURs; developing a data management and archiving procedure and system for GHG inventories; and developing an MRV tool for tracking and reporting on the progress of implementation and impacts of mitigation and adaptation actions. During the technical analysis, the Party recognized the need to improve institutional arrangements for MRV. The Party also noted its difficulties in transitioning to the ETF, which relate to Belize being a small country with a small team coordinating report preparation and to reporting under the ETF being a complex process. Belize looks forward to receiving templates, guidance, hands-on training, software and other means of support to facilitate its transition to the ETF.

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

23. As indicated in table I.1, Belize reported information on its GHG inventory in its BUR partially 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.

24. Belize submitted its first BUR in 2021 and the GHG inventory reported is for 1994–2017. The GHG inventory is consistent with the requirements for the reporting time frame.

25. Belize submitted an NIR as an additional document during the technical analysis but did not include the relevant references in the BUR. During the technical analysis, the Party clarified that the NIR was prepared concurrently with the BUR but could not be submitted together with the BUR owing to a technical error in its system during the submission uploading process.

26. GHG emissions and removals for the BUR covering the 1994–2017 inventories were estimated using methodologies from the 2006 IPCC Guidelines. The tier 1 approach was used for the energy, IPPU and waste sectors; tier 1 and tier 2 approaches were used for the agriculture sector; and tier 1, tier 2 and tier 3 approaches were used for the forestry and other land use sector.

27. Information on AD and EFs used and their sources was not reported in Belize's BUR. During the technical analysis, the Party provided, via its NIR, detailed information on AD and EFs, including on the main sources of AD and EFs used for each category.

28. Information on the Party's total GHG emissions by gas for 2017 is outlined in table 1 in Gg CO₂ eq. It shows an increase in emissions of 560.2 per cent without land and HWP since 1994 (180.96 Gg CO₂ eq).

Table 1
Greenhouse gas emissions by gas of Belize for 2017

<i>Gas</i>	<i>GHG emissions (Gg CO₂ eq) including land and HWP^a</i>	<i>% change 1994–2017</i>	<i>GHG emissions (Gg CO₂ eq) excluding land and HWP^a</i>	<i>% change 1994–2017</i>
CO ₂	–6 249.35	7.9	772.16	6 325.0
CH ₄	254.82	132.9	254.82	132.9
N ₂ O	124.54	111.6	124.54	111.6
HFCs	43.20	6 347.8	43.20	6 347.8
PFCs	NO	NA	NA	NA
SF ₆	NO	NA	NA	NA
Other	NA	NA	NA	NA
Total	–5 826.79	11.9	1 194.71	560.2

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

29. Information on GHG emissions by gas was not reported in Belize's BUR. However, during the technical analysis, the Party provided, via its NIR, information on CO₂, CH₄, N₂O and HFC emissions but information on NO_x, CO and non-methane volatile organic compound emissions was not provided.

30. Belize applied notation keys in tables where numerical data were not provided. The use of notation keys was consistent with the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties.

31. Some categories of emissions sources and removals by sinks were not included in the reporting tables with either estimates or notation keys (e.g. fuel combustion (1.A), mineral industry (2.A) and non-energy products from fuels and solvent use (2.D) for years before 2012). During the technical analysis, Belize clarified that the categories that were not included in the tables have no AD available, do not occur in the country or have emissions that are considered to be insignificant.

32. In its BUR, Belize, to some extent, 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. It did not include the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF and in the sectoral reporting tables, it did not include all the categories for the energy and IPPU sectors. In the Party's reporting, primary broadleaf forests include semi-deciduous/semi-evergreen forests and secondary broadleaf forests include pine forests, mangroves and forest plantations. Cropland was reported as annual and perennial crops, and fallow land. Two categories of grassland were reported: (1) shrublands, pastures, thickets and savannahs; and (2) regenerating grassland. Wetlands, settlements and other land were not subclassified.

33. 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 calculated by the TTE using information from the BUR, in 2017 are reflected in table 2.

Table 2

Shares of greenhouse gas emissions by sector of Belize for 2017

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>	<i>% change 1994–2017</i>
Energy	786.36	65.9	NA ^b
IPPU	43.69	3.7	6 430.3
AFOLU	–6 683.16	NA	–1.1
Livestock (category 3.A)	177.27	14.8	137.9
Land (category 3.B)	–6 986.50	NA	–3.1
Aggregate sources and non-CO ₂ emissions sources on land (category 3.C)	160.58	13.4	52.3
HWP and other emissions (category 3.D)	–34.50	NA	–110.4
Waste	26.81	2.2	7 107.8

^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)).

^b The change is "NA" because estimates for 1994 were not available (they were reported as "NE").

34. Belize reported information on its use of GWP values consistent with those provided by the IPCC in its AR2 and AR5 based on the effects over a 100-year time-horizon of GHGs. GWP values from the AR2 were used for the energy, IPPU, agriculture and waste sectors, and GWP values from the AR5 were used for the forestry and other land use sector. During the technical analysis, Belize clarified that different methods (Excel-based tool or IPCC inventory software) with different GWP values were used for different sectors, and that it had not converted the results to make them uniform in terms of GWP. The Party informed the TTE that it plans to use a single source of GWP values for its next report.

35. For the energy sector, information was clearly reported in the NIR on CO₂, CH₄ and N₂O emissions for the categories energy industries (1.A.1), transport (1.A.3) and other sectors – residential biomass (1.A.4); methodological tier level (tier 1); and sources of AD and EFs. The Party reported that fugitive emissions from natural gas flaring were not estimated owing to lack of data. The category road transportation (1.A.3.b) (CO₂) was reported as a key category.

36. Energy sectoral tables were not included in Belize's BUR and information for several categories under the energy sector was missing. It was not clear to the TTE whether the emissions for these categories were not estimated, do not occur or were included elsewhere because they were not reported as "NE", "NO" or "IE", respectively. It was also not clear which fuels were accounted for as liquid, gas and biomass. During the technical analysis, the Party clarified, via its NIR, the type of fuels included in the estimates. Belize explained that emissions for the following sources were not estimated: other fuels such as propane and kerosene; charcoal production; off-road and other mobile machinery in manufacturing industries and construction (1.A.2); and other sources such as the categories commercial/institutional (1.A.4.a) and agriculture/forestry/fishing (1.A.4.c). The Party also clarified that petroleum refining does not occur in the country and only biomass (wood) was accounted for under the category residential (1.A.4.b).

37. For the IPPU sector, information was clearly reported on CO₂ emissions for the mineral industry (2.A), HFC emissions from product uses as substitutes for ozone-depleting substances, methodological tier level (tier 1), and sources of AD and EFs.

38. Belize reported that complete national data on asphalt imports for road paving were either not available or not accessible, and complete data on open burning of waste were not available. IPPU sectoral tables were not included in Belize's BUR and information for several categories under the IPPU sector was missing. It was not clear to the TTE whether the emissions for these categories were not estimated, do not occur or were included elsewhere because they were not reported as "NE", "NO" or "IE", respectively. During the technical analysis, the Party clarified, via its NIR, that only three subsectors have any significant level of activity: lime production (2.A.2), road paving with asphalt (2.D.4) and food and beverages industry (2.H.2). The Party clarified that activities related to the chemical industry (2.B), metal industry (2.C) and electronics industry (2.E) do not occur in the country.

39. For categories 3.A and 3.C under the AFOLU sector from the 2006 IPCC Guidelines, enteric fermentation (CH₄) and agricultural soils (N₂O) were identified as key categories and the most relevant emissions sources in the sector. Belize used EFs from the 2006 IPCC Guidelines.

40. For land and HWP (categories 3.B and 3.D), Belize reported annual GHG emissions and removals for 1994–2017. Overall, the net removals from land and HWP (categories 3.B and 3.D) fluctuated between a minimum of 6,368.20 t CO₂ eq in 2015 and a maximum of 11,896.15 t CO₂ eq in 2003.

41. Information on which categories of the AFOLU sector were estimated using tier 1, tier 2 and tier 3 methodologies was not clearly reported in Belize's BUR. During the technical analysis, the Party provided this information via its NIR. The tier 1 methodology was used for all categories in the agriculture sector except for emissions from biomass burning – sugar cane (3.C.1), for which the tier 2 methodology was used. For category 3.B, the tier 1 methodology was used for forest land (3.B.1), cropland (3.B.2), grassland (3.B.3), wetlands (3.B.4), settlements (3.B.5) and other land (3.B.6); the tier 2 methodology for secondary broadleaf forests; and the tier 3 methodology for primary broadleaf forests.

42. For the waste sector, information was clearly reported on CO₂, CH₄ and N₂O emissions for the categories solid waste disposal (4.A), biological treatment of solid waste (4.B), incineration and open burning of waste (4.C) and wastewater treatment and discharge (4.D). Updated national data related to solid waste generation rates and waste composition were used for estimating emissions from solid waste disposal.

43. Information on sources of AD and EFs for the waste sector was not reported in Belize's BUR. During the technical analysis, the Party provided this information via its NIR.

44. The NIR provides an update to all GHG inventories reported in the Party's previous NCs. The information reported provides an update of the Party's NC3, which addressed anthropogenic emissions and removals for 2000, 2003, 2006 and 2009. The update was carried out for 1994–2017 using the methodologies contained in the 2006 IPCC Guidelines (e.g. extrapolation) and updated data source, with some missing estimates, leading to an inconsistent time series. The Party reported that emissions for the energy sector for years before 2012 were not recalculated, because it was not possible to segregate fuel consumption between road and maritime transport. For the IPPU sector, recalculations were made only for F-gases, while for the forestry and other land use sector, recalculations were made only for aggregated emissions and removals owing to limitations in the method used for assessing land use and land-use change. For the waste sector, it was not possible to recalculate emissions because different methods from various studies were used to determine waste generation rates. Nevertheless, the GHG inventories for 1994–2017 reported in the NIR are consistent.

45. Belize described in its BUR the institutional framework for the preparation of its 2017 GHG inventory. The Party reported that the National Climate Change Office leads Belize's national and international agendas on climate change, including coordinating the preparation of national GHG inventories and establishing an appropriate GHG inventory system. The Ministry of Fisheries, Forestry, the Environment and Sustainable Development is the

governmental body responsible for its climate change policy and GHG inventory, which was prepared by the Caribbean Community Climate Change Centre. The Party identified improvements in the information reported such as identifying the type of fuel (diesel or gasoline) used in road and marine transportation; collecting AD on imports of asphalt for road paving; clearly defining annual and perennial crops, including agroforestry systems such as cocoa, coconut and fruit tree; incorporating emissions from aquaculture into the inventory, especially those related to wastewater and the use of urea and dolomite; establishing a national average waste generation rate; updating the number of connections to wastewater treatment systems; and conducting surveys on industrial wastewater discharge and treatment.

46. Belize clearly reported that a key category analysis was performed for the level of emissions.

47. Information on a key category analysis for the trend in emissions was not reported in Belize's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that owing to the lack of data for years before 2012, particularly for the energy sector, a key category analysis for trend could not be performed. The Party plans to perform the analysis when the required data are available.

48. The NIR indicates that QA/QC activities, as outlined in Belize's GHG inventory QA/QC plan, were implemented as necessary.

49. Belize reported information on CO₂ fuel combustion using only the sectoral approach. The information reported indicates that the fuel combustion emissions estimated under the sectoral approach are 786.36 Gg CO₂ eq.

50. Information on CO₂ fuel combustion using the reference approach was not reported in Belize's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that comprehensive data were not available for all years in the time series and therefore the reference approach was not used.

51. Information was clearly reported on international aviation.

52. Information on marine bunkers was not reported in Belize's BUR. During the technical analysis, the Party clarified that AD for international marine bunker fuels were not available at the time of compilation of the BUR; therefore, information on marine bunkers was not reported. The Party stated that efforts to collect these data are under way.

53. Belize reported information on the uncertainty assessment (level) of its national GHG inventory. The uncertainty analysis was based on the tier 1 approach and covers all source categories and all direct GHGs. The results obtained, as reported in the BUR, reveal that the level uncertainty for emissions is 26.9 per cent. The TTE commends Belize for providing, during the technical analysis via its NIR, detailed information on the selected uncertainty values for AD and EFs and the reasons for their selection.

54. 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, 27, 29, 31, 34, 36, 38, 41, 47, 50 and 52 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

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

56. The information reported provides an overview of the Party's mitigation actions and their effects. In its BUR, Belize reported information on its national context and framed its national mitigation planning and actions in the context of the national climate change strategy. Belize reported that climate change has been mainstreamed in and integrated into its development plans, including mitigation. Key strategies and policies guiding decision-making include the National Climate Change Policy, Strategy and Action Plan; the National Climate Resilience Investment Plan; and the national Growth and Sustainable Development Strategy, in which climate change has been mainstreamed. Belize's NDC builds on these

plans and strategies and focuses on reducing emissions in key sectors. The mitigation actions reported in the BUR are in the energy, AFOLU and waste sectors. During the technical analysis, the Party clarified that if all activities are sustained, the anticipated minimum annual GHG emission reduction is expected to be 263.71 Gg CO₂ eq by 2033.

57. The Party reported a summary of its sectoral 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.

58. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Belize reported the names of mitigation actions or groups of actions, coverage (sector and gases) and progress indicators in the BUR (tables 4.2–4.6). A description of mitigation actions, as well as information on quantitative goals, was provided in the BUR.

59. Information on coverage of non-CO₂ gases and on progress indicators with defined data sources and procedures to enable their collection was not clearly reported in Belize's BUR. The reasons for this lack of reporting were not provided in the BUR. During the technical analysis, the Party clarified that all emissions were reported on a CO₂ eq basis. The Party also clarified that only CO₂ emissions were calculated for the energy sector, only CO₂ and CH₄ emissions were calculated for the waste sector and F-gas emissions were calculated for the IPPU sector. Furthermore, the Party indicated that no indicators had yet been developed. The TTE noted that "NA" was not clearly defined when used for reporting supporting entity, gas and/or funding. During the technical analysis, the Party clarified that not all measures had supporting entities, some measures had no GHG impact and that in certain cases, funding information was not available at the time of preparation of the BUR.

60. Belize reported information on methodologies and assumptions, the objectives of the actions, and progress of implementation for all mitigation actions in the energy, AFOLU and waste sectors.

61. In the energy sector, the mitigation actions focused mainly on improving energy efficiency, increasing electrification and promoting renewable energy sources. The actions reported were a mix of implemented, ongoing and planned actions. Completed mitigation actions include the Energy Efficiency Program for Latin America and the Caribbean (2018), which improved public service office building efficiency, and the La Gracia Smart Solar Off-Grid Project (2017), which connected the community of La Gracia to a 24 kW photovoltaic system. The Party identified the potential co-benefits of these actions as including increased access to clean energy, cost savings, improved livelihoods, job creation and economic development. Various plans and studies have also been completed and undertaken, including the Sustainable Energy Action Plan (2015), assessments of vehicle fuel economy (2018) and public transportation (2019) and a solar and wind feasibility study (2019). Ongoing projects include the emPOWERing Rural Electrification project (annual emission reduction potential of 319 t CO₂ eq), the Energy for Sustainable Development in Caribbean Buildings project (emission reduction potential of 11.79 Gg CO₂ eq by 2033) and the Street Light LED Conversion Project (annual emission reduction potential of 184 Gg CO₂ eq).

62. In the AFOLU sector, the mitigation actions focused mainly on reducing deforestation. The actions reported were ongoing, and include implementing the Mangrove Act to control mangrove trimming; using the REDD+ strategy and the Forest Bill to place all forests outside reserves under management plans; protecting and restoring mangroves through enforcement of the 2018 Forest Regulations; and implementing the Resilient Rural Belize programme to aid smallholder farmers in adopting sustainable production processes. In addition, the Party reported that the Belize Agriculture Information Management System, completed in 2019, supports MRV of key emitting agricultural practices. The potential co-benefits of these actions, as identified by the Party, include increased biodiversity, storm protection and poverty alleviation.

63. In the waste sector, the mitigation action reported, which is ongoing, focuses on the elimination of waste incineration. Development of the improved waste management system via the Solid Waste Management Project II has an emission reduction potential of 34.78 Gg CO₂ eq by 2033 and potential co-benefits including reduced water and soil contamination and improved human health.

64. The Party did not clearly indicate whether uncertainty and sensitivity analyses were performed, which GWP values were used for estimating emissions, whether all mitigation actions under the energy sector had been compared with the ‘business as usual’ emission levels and assumed population growth, and which activities were conducted to ensure data quality. During the technical analysis, the Party clarified that no uncertainty or sensitivity analyses were conducted, the GWP values were those used for the national GHG inventory, all mitigation actions were compared with the ‘business as usual’ scenario and assumed population growth, and expert review ensured data quality. Belize also did not report steps taken or envisaged (or the progress of those steps) to achieve mitigation actions or clearly report on estimated emission reductions. During the technical analysis, the Party indicated that such information was not available at the time of report preparation.

65. Belize did not provide information on its involvement in international market mechanisms as a Party to the Kyoto Protocol. During the technical analysis, Belize clarified that it was not involved in international market mechanism activities and therefore had none to report.

66. Belize reported information on its domestic MRV arrangements in accordance with decision 2/CP.17, annex III, paragraph 13. The information reported indicates that Belize is in the process of designing and developing a domestic MRV system for mitigation actions. Further, Belize reported consistently with the voluntary general guidelines for domestic MRV of domestically supported nationally appropriate mitigation actions, contained in the annex to decision 21/CP.19. Belize outlined the steps on a proposed pathway to establishing an enhanced MRV system, including establishing institutional arrangements, defining mitigation accounting standards, monitoring data-collection responsibilities, defining reporting obligations and defining verification approaches and roles.

67. Belize reported that of the sectoral MRV systems in place, the forestry and other land use sector has the most advanced. Belize’s approach to developing and fully operationalizing its MRV system has focused on integrating the system with existing national development monitoring and evaluation processes. Belize is using stakeholder input to develop a framework for the national MRV system for climate governance and an associated MRV platform – the Climate Risk Information System. Other initiatives have also been planned, including enhancing institutional arrangements for the national MRV system, developing indicators for tracking NDC targets and climate finance flows, building capacity to prepare GHG inventories and fostering regional collaboration on climate action.

68. Belize did not provide information on data storage or archiving. During the technical analysis, the Party indicated that data are stored at the National Climate Change Office under the responsibility of the national GHG inventory coordinator. Archived information includes all historical data sets, calculation tools and QA/QC protocols.

69. The TTE noted that the transparency of the information reported on mitigation actions could be enhanced by addressing the areas noted in paragraphs 59, 64, 65 and 68 above, which could facilitate a better understanding of the information reported on mitigation actions.

70. The Party did not report in its BUR any capacity-building needs beyond those cited during the technical analysis that are required for compliance with requirements under the ETF. Belize requested that guidance and resources be provided to implement technically challenging tasks such as performing ex post emission estimates for mitigation actions, and uncertainty and sensitivity analyses.

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

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

72. Belize 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, Belize explained that it cannot address climate change on its own. The financial,

technical and technological constraints and gaps it faces require both national and international support to address. Belize's technology needs assessment (conducted in 2017) highlighted several barriers to implementing mitigation and adaptation actions and potential solutions for some of them. While the Party recognized the support it receives from bilateral and multilateral cooperation, it noted that establishing international cooperation can be difficult owing to the country's limited capacity, and that much more support is required for Belize to be able to meet UNFCCC reporting requirements.

73. Information was not clearly reported on the type of constraints and gaps faced, which would allow the design of actions to overcome them. During the technical analysis, the Party clarified that it reported in its BUR (table 5.1) the gaps and needs identified from the technology needs assessment conducted in 2017 in terms of type: technology transfer, capacity-building or financial support. However, constraints in tracking and documenting these support needs exist; tracking and documentation has not been done in a planned manner outside the technology needs assessment.

74. Belize reported information on financial resources, technology transfer, capacity-building and technical support received in accordance with decision 2/CP.17, annex III, paragraph 15. In its BUR, Belize reported that it received a GEF grant of USD 1,704,000 and a UNDP grant of USD 40,000 for preparing its first BUR and its NC4. The information reported indicates that Belize also received support from several other sources, including the International Bank for Reconstruction and Development (USD 30,303,030 for the Climate Resilient Infrastructure Project), the Adaptation Fund (USD 5,585,858 for the Belize Marine Conservation and Climate Adaptation Initiative), the GEF, UNDP, the Inter-American Development Bank and bilateral cooperation.

75. Belize reported in table 5.2 of the BUR on the support received and in table 5.3 on the capacity-building support received, but information as to whether the support received addressed finance, technology transfer or capacity-building needs was limited. During the technical analysis, the Party clarified that its precision in describing whether the support received addressed finance, technology transfer or capacity-building needs was lacking because information is not tracked for this purpose.

76. Belize 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, Belize reported that the technology needs assessment was nationally determined. The technology needs assessment (conducted in 2017) was the basis for the technology needs reported in the BUR.

77. 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 73 and 75 above, which could facilitate a better understanding of the information reported on needs and support received.

5. Any other information

78. Belize reported some information on adaptation action that may lead to GHG emission reductions, without providing estimations of such reductions. In its BUR, it noted that mitigation co-benefits are achieved through enabling sustainable production processes that use fewer resources than traditional processes.

D. Identification of capacity-building needs

79. In consultation with Belize, the TTE identified the following needs for capacity-building that could facilitate the preparation of subsequent BURs and participation in ICA:

- (a) GHG inventory preparation:
 - (i) Using tier 2 and tier 3 methodologies for key categories;
 - (ii) Estimating emissions from marine bunker fuels;

- (iii) Using the reference approach for the energy sector and comparing the GHG estimates derived with those derived from the sectoral approach;
- (iv) Using notation keys for all sectors and categories in all reporting tables, and explaining the level of significance when using “NE” for insignificant sources;
- (v) Providing a complete time series, including by using methods from the 2006 IPCC Guidelines to fill AD gaps and to perform and report recalculations in a transparent manner;
- (vi) Enhancing the key category analysis by including the trend in emissions;
- (vii) Reporting all sectoral tables for all sectors, using, for example, IPCC inventory software for the energy, IPPU and waste sectors and Excel-based tools for the AFOLU sector;
- (viii) Enhancing technical capacity and institutional arrangements relating to GHG inventories with a view to facilitating their timely preparation and reporting;
- (b) Mitigation actions and their effects:
 - (i) Estimating the results achieved of mitigation actions;
 - (ii) Identifying steps envisioned or taken to achieve mitigation actions, tracking progress on underlying steps for mitigation actions, and developing progress indicators;
 - (iii) Carrying out activities to safeguard data quality;
 - (iv) Conducting uncertainty and sensitivity analyses on emission targets and achievements;
 - (v) Estimating the impact of mitigation measures for non-CO₂ gases;
- (c) Needs and support:
 - (i) Enhancing the identification of actions that can be implemented to address constraints and gaps associated with tracking and documenting support needs;
 - (ii) Strengthening the identification and description of whether support received addresses finance, technology transfer or capacity-building needs.

80. The TTE noted that, in addition to those identified during the technical analysis, Belize reported the following capacity-building needs in its BUR:

- (a) Capacity-building for technicians on installing, operating and maintaining gasification systems;
- (b) Capacity-building for technicians on installing, operating and maintaining on-grid and off-grid solar photovoltaic systems;
- (c) Training for technicians and locals on installing, maintaining and monitoring micro-hydropower plants;
- (d) Capacity-building for government technical experts on formulating and implementing nationally appropriate mitigation actions and national adaptation plans;
- (e) Capacity-building for seed producers on producing climate-resilient grain seeds;
- (f) Training for farmers on improving drip irrigation and fertilization systems and rainwater harvesting;
- (g) Training for local technicians on installing and operating improved power conversion systems, thus enabling the certification of those technicians;
- (h) Training for laboratory technicians and nursery field technicians on producing climate-resilient potato seed tubers;
- (i) Capacity-building for national experts to enhance their familiarity with and understanding of international reporting requirements of NIRs.

III. Conclusions

81. The TTE conducted a technical analysis of the information reported in the first BUR of Belize 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 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; constraints and gaps, and related financial, 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 the first BUR; and the institutional arrangements for domestic MRV. During the technical analysis, additional information was provided by Belize on its GHG inventory and mitigation actions. The TTE concluded that the information analysed is partially transparent.

82. Belize reported information on the institutional arrangements relevant to the preparation of its BURs. The reported information also covers the institutional arrangements relevant to the preparation of NCs and NIRs and to the GHG inventory system, as well as the governance of climate change in Belize. The National Climate Change Office under the Ministry of Fisheries, Forestry, the Environment, and Sustainable Development is responsible for submitting BUR and NCs. With regard to domestic MRV, the Party explained that development of the system is under way, and efforts are being made to ensure structured and transparent reporting.

83. In its first BUR, submitted in 2021, Belize reported information on its national GHG inventory for 1994, 1997, 2000, 2003, 2006, 2009, 2012, 2015 and 2017. This included GHG emissions and removals of CO₂, CH₄ and N₂O for relevant sources and sinks. The inventory was developed on the basis of the 2006 IPCC Guidelines. The total GHG emissions for 2017 were reported as 1,194.71 Gg CO₂ eq (excluding land and HWP) and -5,826.79 Gg CO₂ eq (including land and HWP). Four key categories and main gases were identified: forest land remaining forest land (CO₂), land converted to cropland and land remaining cropland (CO₂), land converted to grassland (CO₂) and road transportation (CO₂). HFC emissions were reported in CO₂ eq. The Party used the GWP values provided in the AR2 for the energy, IPPU, agriculture and waste sectors, and those in the AR5 for the forestry and other land use sector.

84. Belize reported information on mitigation actions and their effects in tabular format. Belize reported planned, ongoing and completed actions in the energy, AFOLU and waste sectors. The mitigation actions focus on energy efficiency, electrification, renewable fuels, reduced deforestation and improved waste management practices. The Party reported the progress of implementation of its mitigation actions and the results achieved, including potential emission reductions and its MRV arrangements. The highest estimated outcome was reported for the energy sector of 28 Gg CO₂ eq between 2017 and 2018. Belize reported the co-benefits of its mitigation actions, including increased access to clean energy, cost savings, improved livelihoods, job creation and economic development. During the technical analysis, the Party clarified that if all activities are sustained, the anticipated minimum annual GHG emission reduction is expected to be 263.71 Gg CO₂ eq by 2033. Information on progress indicators, underlying steps taken or envisaged, and results achieved was not provided owing to the lack of availability of such information, as clarified by the Party during the technical analysis.

85. Belize reported information on key constraints, gaps and related needs, including the need for internal and external support to address the existing needs at the financial, technical and technological level. It is sometimes difficult to establish international cooperation due to the Party's limited capacity and much more support is required for the Party to be able to meet UNFCCC reporting requirements. Information was reported on the technical, technology transfer and capacity-building support received, including through bilateral and multilateral cooperation. The Party also reported that it received financial support in grants of USD 1,704,000 (GEF) and USD 40,000 (UNDP) for preparing its first BUR and its NC4. The Party further reported information on technology needs, which were nationally determined. Information reported on constraints and gaps was not clear on whether the

support received addressed finance, technology or capacity-building needs. However, the Party provided clarification during the technical analysis.

86. The TTE, in consultation with Belize, identified the 15 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 the two needs for capacity-building to facilitate transition to the ETF listed in paragraphs 22 and 70 above. Belize prioritized all the capacity-building needs.

Annex I

Extent of the information reported by Belize 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 Belize

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</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, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	Yes	Belize submitted its first BUR in May 2021; the GHG inventories reported are for 1994, 1997, 2000, 2003, 2006, 2009, 2012, 2015 and 2017.
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	Belize 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;	Partly	Comparable information was reported to some extent. Belize did not include the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF.
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines.	Partly	Comparable information was reported to some extent. Belize did not include all the categories for the energy and IPPU sectors.
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.	No	The first BUR was submitted in 2021 with GHG emissions for 1994, 1997, 2000, 2003, 2006, 2009, 2012, 2015 and 2017. Comprehensive data were not available for all years in the time series for the energy, IPPU and waste sectors.

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
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).	Yes	This information was reported for 1994, 2000, 2002, 2003, 2006 and 2009.
Decision 2/CP.17, annex III, paragraph 9	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, chapter III (National greenhouse gas inventories), including: <p>(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);</p> <p>(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF₆).</p>	Partly	Belize did not include in its BUR a table with complete comparable information as requested in the reporting provisions. The total emissions were reported at the national level only in CO ₂ eq. In the NIR, GHG emissions were reported by sector in Gg CO ₂ eq (table ES.1) and GHG emissions were reported by category in Gg CO ₂ eq (tables ES.2, ES.3, ES.4 and ES.5).
		Partly	Comparable information was reported to some extent. HFC emissions were reported only in the IPPU sectoral summary report, in CO ₂ eq. In the NIR, HFC emissions were reported in table ES.5. According to NIR table 2.10, SF ₆ and PFC emissions do not occur in the country.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	Yes	The Party submitted a REDD+ technical annex on 5 May 2021.
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	Information on procedures and arrangements for the preparation of the national GHG inventory was reported in NIR sections 1.2–1.6.
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: <p>(a) CO₂;</p>	Partly	In the NIR, national emissions were reported in CO ₂ eq (table ES.1) and GHG emissions by category (tables ES.2, ES.3, ES.4 and ES.5). Not all

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
			categories of emissions sources and removals by sinks were estimated or explained using notation keys.
	(b) CH ₄ ;	Partly	Same as for CO ₂ above.
	(c) N ₂ O.	Partly	Same as for CO ₂ above.
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	Reported as “NO”.
	(c) SF ₆ .	Yes	Reported as “NO”.
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	The Party reported that CO from field burning of crop residues has been estimated only for 2009; however, no estimates were reported.
	(b) NO _x ;	No	The Party reported that NO _x from field burning of crop residues has been estimated only for 2009; however, no estimates were reported.
	(c) Non-methane volatile organic compounds.	No	
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as sulfur oxides, 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.	No	The information was reported only for the sectoral approach.
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:		In the NIR, Belize states that international marine transport includes frequent water taxi trips from Belize City to Chetumal, Mexico, and from Dangriga to ports in Honduras.
	(a) International aviation;	Yes	
	(b) Marine bunker fuels.	No	
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	The Party used the GWP values provided in the AR2 for the energy, IPPU, agriculture and waste sectors, and those in the AR5 for the forestry and other land use sector.

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 17/CP.8, annex, paragraph 21	<p>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:</p> <p>(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;</p> <p>(b) Explanation of the sources of EFs;</p> <p>(c) Explanation of the sources of AD;</p> <p>(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:</p> <p>(i) Source and/or sink categories;</p> <p>(ii) Methodologies;</p> <p>(iii) EFs;</p> <p>(iv) AD;</p> <p>(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>NA</p> <p>Yes</p>	<p>Belize used the 2006 IPCC Guidelines. The tier 1 approach was used for the energy, IPPU and waste sectors; tier 1 and tier 2 approaches were used for the agriculture sector; and tier 1, tier 2 and tier 3 approaches were used for the forestry and other land use sector.</p> <p>An explanation of the sources was provided in the NIR.</p> <p>An explanation of the sources was provided in the NIR.</p> <p>NIR section 5 provides gaps and limitations and NIR section 6 (on the improvement plan) provides recommendations from the peer review of the previous inventory, conducted in 2018.</p>
Decision 17/CP.8, annex, paragraph 22	<p>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.</p> <p>Non-Annex I Parties are encouraged to provide information on the level of uncertainty associated with inventory data and their underlying</p>	Partly	<p>Notation keys were used. However, not all categories of emissions sources and removals by sinks were estimated or explained using notation keys.</p>

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 17/CP.8, annex, paragraph 24	assumptions, and to describe the methodologies used, if any, for estimating these uncertainties:		
	(a) Level of uncertainty associated with inventory data;	Yes	NIR section 4 explains the uncertainty analysis and its results (which are in NIR tables 4.1 and 4.2).
	(b) Underlying assumptions;	Yes	Reported in the NIR.
	(c) Methodologies used, if any, for estimating these uncertainties.	Yes	Reported in the NIR.

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 Belize

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
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 gases), quantitative goals and progress indicators;	Partly	Information on actions related to non-CO ₂ gases and on progress indicators was not clearly reported.
	(b) Information on:		
	(i) Methodologies;	Yes	
	(ii) Assumptions;	Yes	
	(c) Information on:		
	(i) Objectives of the action;	Yes	
	(ii) Steps taken or envisaged to achieve that action;	No	
	(d) Information on:		
	(i) Progress of implementation of the mitigation actions;	Yes	

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
	(ii) Progress of implementation of the underlying steps taken or envisaged;	No	
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible;	Partly	The Party reported on emission reductions for some of the mitigation actions.
	(e) Information on international market mechanisms.	No	
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 Belize

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Assessment of whether the information was reported</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: (a) Constraints and gaps;	Partly	Gaps were mentioned in the BUR, but limited information was provided on the type of these gaps.
	(b) Related financial, technical and capacity-building needs.	Yes	
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;	Partly	Information on financial resources received, technology transfer and capacity-building received was not disaggregated.
	(b) Information on technical support received from the GEF, 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;	Yes	
	(b) Technology support received.	Yes	

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>.

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B. UNFCCC documents

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C. Other documents

The following reference may not conform to UNFCCC editorial style as it has been reproduced as received:

Belize's Fourth National Greenhouse Gas Inventory Report (2020). Ministry of Agriculture, Forestry, Fisheries, the Environment, Sustainable Development and Immigration.
