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Technical analysis of the first biennial update report of Zimbabwe submitted on 24 September 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 Zimbabwe, 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
CBIT	Capacity-building Initiative for Transparency
CDM	clean development mechanism
CGE	Consultative Group of Experts
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
EF	emission factor
EX-ACT	Ex-Ante Carbon-balance Tool
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	statistical database of the Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
HWP	harvested wood products
ICA	international consultation and analysis
IEA	International Energy Agency
INC	initial national communication
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
NMVOC	non-methane volatile organic compound
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	<i>Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories</i>
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 Zimbabwe, 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, Zimbabwe submitted its first BUR on 24 September 2021 as a stand-alone report.
6. During the technical analysis, the Party clarified that its first BUR was submitted with delay owing to technical capacity constraints.
7. A desk analysis of Zimbabwe's BUR was conducted remotely from 4 to 8 April 2022 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: Lewis Njangu Aldo (Liberia), Dawa Chhoedron (Bhutan), Paulo Cornejo (Chile), Magdalena Jóźwicka-Olsen (member of the CGE from European Union), Mwangi James Kinyanjui (Kenya), Fui Pin Koh (Malaysia), Naoki Matsuo (Japan), Asia Mohamad (Sudan), Tahira Munir (Pakistan), Phuong-Nam Nguyen (Viet Nam), Koki Okawa (Japan), Emma Salisbury (member of the CGE from the United Kingdom of Great Britain and Northern Ireland), Hansrajie Sukhdeo (Guyana) and Janka Szemesova (member of the CGE from Slovakia). Paulo Cornejo and Naoki Matsuo were the co-leads. The technical analysis was coordinated by Anna Sikharulidze and Roman Payo (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 Zimbabwe engaged in consultation¹ on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of Zimbabwe's first BUR, the TTE prepared and shared a draft summary report with Zimbabwe on 6 July 2022 for its review and comment. Zimbabwe, in turn, provided its feedback on the draft summary report on 3 October 2022.
9. The TTE responded to and incorporated Zimbabwe's comments referred to in paragraph 8 above and finalized the summary report in consultation with the Party on 26 October 2022.

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 Zimbabwe'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 mostly 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. Zimbabwe reported in its first BUR information on its national circumstances, including a description of the geography, climate, population and economy of the country, as well as information regarding development priorities and objectives.

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

20. Zimbabwe 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 role of the High-level Committee, which is chaired by the Office of the President and Cabinet, and which comprises permanent secretaries from all government ministries. The High-level Committee oversees all climate change activities at the national level, while the Ministry of Environment, Climate, Tourism and Hospitality Industry coordinates action on environmental issues, including climate change. The Climate Change Management Department is mandated by the Ministry to implement national climate change programmes, and is also responsible for preparing Zimbabwe's NCs and BURs. The Department is supported by the multisectoral National Climate Change Steering Committee, which provides sector-specific and cross-sectoral advice and guidance, as well as assistance in coordinating and implementing the climate change programmes the Department is responsible for.

21. Zimbabwe reported in its first BUR information on its domestic MRV arrangements. The national MRV system is not yet fully developed. The GHG inventory system is currently under development. The elements that are already in place include a designated UNFCCC national focal point, a coordinator for the preparation of NCs and BURs, and a team leader for the development of the national GHG inventory. Sectoral experts have been engaged for GHG inventory preparation, and a mapping of stakeholders has been completed. Zimbabwe reported that it has developed an MRV system for the mitigation actions in its NDC, with a focus on MRV of the action on solar-powered water-pumping systems. Although MRV arrangements for support needed and received are not yet in place, the Ministry of Finance and Economic Development, acting as the national Aid Coordination Agency, is in the process of developing the Development Projects Management Information System to track financial support received.

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

22. As indicated in table I.1, Zimbabwe 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.

23. Zimbabwe submitted its first BUR in 2021 and the GHG inventory reported is for 2000–2017. The GHG inventory is consistent with the requirements for the reporting time frame.

24. GHG emissions and removals covering the 2000–2017 inventory were estimated using tier 1 and tier 2 methodologies from the 2006 IPCC Guidelines. The TTE commends the Party for using the 2006 IPCC Guidelines for the first time for all sectors.

25. Information on sources of AD and EFs was clearly reported in the BUR. The Party reported using default EFs from the 2006 IPCC Guidelines for all sources and sinks, except cement production, for which a country-specific EF was used. The main source of AD for the energy sector was the Ministry of Energy and Power Development, which represents an improvement compared with the Party's NC3 (submitted in 2017), for which the energy sector AD were obtained from IEA. The main source of AD for the IPPU and agriculture sectors was the Zimbabwe National Statistics Agency, while the Forestry Commission provided AD for the forestry and other land use sector. The Environmental Management

Agency provided AD for the waste sector. Furthermore, companies in key national industries (e.g. cement producers) also provided AD for the IPPU sector.

26. The values of AD and country-specific EFs were not reported in Zimbabwe's BUR. During the technical analysis, the Party clarified that it had planned to submit an NIR with its first BUR, but could not do so as the NIR has not yet been finalized. The NIR, which will be submitted with the Party's NC4, will include detailed information on AD and EFs.

27. Information on the Party's total GHG emissions by gas for 2017 is outlined in table 1 in Gg CO₂ eq.

28. Zimbabwe reported total aggregate GHG emissions and removals for 1994, 2000, 2006 and 2017 by gas in units of mass and by sector in Gg CO₂ eq. in BUR tables 2.7 and 2.8 respectively. The TTE noted that the emissions for 2017 reported in these two tables were inconsistent with the emissions for 2017 reported elsewhere in the BUR; therefore, the TTE was not able to assess GHG emissions for the years reported and the consistency of the time series. During the technical analysis, the Party clarified that the different values reported were transcription errors arising from the lack of a formal GHG inventory QA/QC procedure and provided the TTE with the detailed national GHG inventory for 2000–2017 by gas and by sector. The Party clarified that the GHG inventory for 2000–2017 reported in its first BUR is being improved and that the updated version will be included in the NC4 that Zimbabwe plans to submit in 2022.

Table 1
Greenhouse gas emissions by gas of Zimbabwe for 2017

<i>Gas</i>	<i>GHG emissions (Gg CO₂ eq) including land and HWP^a</i>	<i>GHG emissions (Gg CO₂ eq) excluding land and HWP^a</i>
CO ₂	23 396.85	10 071.04
CH ₄	11 168.85	11 168.85
N ₂ O	3 220.90	3 220.90
HFCs	NE	NE
PFCs	NE	NE
SF ₆	NE	NE
Other	NA	NA
Total	37 786.60	24 460.79

^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 other emissions was clearly reported, including 47.17 Gg NO_x and 2,625.68 Gg CO for the AFOLU sector (category 3.C (aggregate sources and non-CO₂ emissions sources on land)) for 2017.

30. Emissions of NMVOCs and SO_x, and of NO_x and CO other than for category 3.C of the AFOLU sector for 2017 were not reported in the BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that these emissions have been estimated and will be reported in its NC4.

31. HFCs, PFCs and SF₆ were reported as "NE". The Party clarified in its BUR that emissions of fluorinated gases were not estimated because disaggregated AD, which are required for using methodologies from the 2006 IPCC Guidelines, were not available.

32. Zimbabwe applied notation keys in summary table 2.2 of its BUR on GHG emissions for 2017 by gas and by category. The use of notation keys was not always consistent with the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties. For example, the Party reported "0.00" for some gases and categories (e.g. CO₂ and N₂O fugitive emissions from fuels, CH₄ emissions from the chemical industry, and CO₂, CH₄ and N₂O emissions from incineration and open burning of waste) without providing an explanation for doing so. Furthermore, "NE" was reported for HFC emissions for sectors where those emissions were not expected to occur (i.e. the AFOLU and waste sectors). During the technical analysis, the Party clarified that some emissions reported as "0.00" were negligible, while in other

instances notation keys should have been used, and confirmed that those errors will be rectified in its next BUR.

33. Zimbabwe did not report 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. During the technical analysis, the Party clarified that comparable information addressing the tables included in annex 3A.2 and the sectoral reporting tables will be included in the NIR, which is still being finalized.

34. The shares of emissions that different sectors contributed to the Party's total GHG emissions excluding land and HWP (categories 3.B and, if reported, 3.D), as reported by the Party for 2017 are reflected in table 2.

Table 2

Shares of greenhouse gas emissions by sector of Zimbabwe for 2017

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>
Energy	13 287.92	54.3
IPPU	711.10	2.9
AFOLU	23 224.01	NA
Livestock (category 3.A)	4 052.53	16.6
Land (category 3.B)	13 376.34	NA
Aggregate sources and non-CO ₂ emissions sources on land (category 3.C)	5 845.67	23.9
HWP and other emissions (category 3.D)	-50.53	NA
Waste	563.57	2.3

^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. Zimbabwe 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 EF sources, energy consumption, and emission trends and their drivers. CO₂ emissions from energy industries (solid fuels) were the main source of GHG emissions for the sector, contributing 21.5 per cent of Zimbabwe's total GHG emissions (excluding land and HWP) for 2017. The Party reported that the sectoral emissions increased during 2000–2017 owing to an increase in fuel combustion activities in the manufacturing industries and construction category and in other sectors, and an increase in fugitive emissions from fuels. The main emissions sources in the energy sector were energy industries, manufacturing industries and construction, other sectors and road transportation. Emissions for all key categories in the energy sector were estimated using a tier 1 methodology.

37. For the IPPU sector, information was clearly reported on GHG emissions, methodological tier levels, and AD and EF sources. The main GHG emissions sources were the mineral industry, metal industry and chemical industry, accounting for 53.6, 33.4 and 11.3 per cent, respectively, of the total emissions for the IPPU sector for 2017. Within the sector, CO₂ accounted for 89.2 per cent of total emissions, with N₂O accounting for the remaining 10.8 per cent. N₂O emissions from nitric acid production and CO₂ emissions from cement production were identified as key categories for the trend assessment.

38. Emissions from cement production were estimated using a tier 2 method from the 2006 IPCC Guidelines for the first time, using information provided by national cement producers. Recalculations were performed for the entire time series owing to the use of the tier 2 method. The TTE commends Zimbabwe for this substantial improvement in the accuracy of its inventory.

39. For the AFOLU sector, Zimbabwe reported annual GHG emissions and removals for 1990–2017, which were estimated by applying the 2006 IPCC Guidelines for the first time. The Party used default EFs from the 2006 IPCC Guidelines and AD from the Zimbabwe

National Statistics Agency, the Environmental Management Agency, the Forestry Commission and FAOSTAT. For AFOLU (categories 3.A and 3.C in the 2006 IPCC Guidelines), CH₄ emissions from enteric fermentation, CH₄ and N₂O emissions from biomass burning, and indirect N₂O emissions from managed soils were identified as key categories and the most relevant emissions sources in the sector. The Party reported that emissions from livestock decreased between 1990 and 2017, reflecting the changes in the animal population and the effects of drought in 1990, 1992, 2002 and 2011.

40. For land and HWP (categories 3.B and 3.D in the 2006 IPCC Guidelines), net removals fluctuated between a minimum of -5,440.90 Gg CO₂ eq in 2005 and a maximum of 19,011.60 Gg CO₂ eq in 2015. Removals have been decreasing owing to deforestation and biomass burning. Conversion of forest land to grassland was the main emissions source for 2017. CO₂ emissions from land converted to grassland, land converted to forest land and land converted to cropland are the three most relevant key categories for both level and trend assessment.

41. Regarding carbon pools, Zimbabwe estimated emissions and removals from (1) above- and below-ground biomass, soil organic carbon, deadwood and litter for forest land; (2) soil organic carbon for land converted to forest land; (3) soil organic carbon, deadwood and litter for cropland; (4) above- and below-ground biomass for land converted to cropland; (5) soil organic carbon for grassland remaining grassland; and (6) above- and below-ground biomass, soil organic carbon, deadwood and litter for grassland, wetland (flooded land), settlements and other land. No emissions or removals were estimated for wetlands remaining wetlands, settlements remaining settlements and other land remaining other land.

42. For the waste sector, information was clearly reported on GHG emissions, methodological tier levels, AD and EF sources, and key categories. A tier 1 method was applied using default EFs. Within the sector, CH₄ emissions represented 92.3 per cent of total emissions, with the remaining 7.7 per cent being N₂O emissions. Solid waste disposal and wastewater treatment and discharge were identified as the most relevant emissions sources for the sector, accounting for 91.2 and 8.8 per cent, respectively, of the sectoral emissions for 2017. No key categories were identified for this sector.

43. The BUR provides an update to the GHG inventory reported in the Party's NCs. The information reported provides an update of the GHG inventory in the Party's NC3, which addresses anthropogenic emissions and removals for 2006. The update was carried out for 2000–2017 using the methodologies contained in the 2006 IPCC Guidelines, thus generating a consistent 18-year time series. The Party reported that it recalculated emissions for all sectors for 2000–2017 owing to changes in GWP values (GWP values from the AR2 were used for the BUR, while GWP values from the AR4 were used for the NC3), methodology (e.g. emissions for the AFOLU and waste sectors were previously estimated using the Revised 1996 IPCC Guidelines), methodological tier levels (for cement production, a tier 2 method was applied for the first time), AD sources (e.g. AD for the energy sector were obtained from IEA for the NC3, but from the Ministry of Energy and Power Development for the BUR) and EFs (e.g. for the waste sector, the Party used default EFs from the 2006 IPCC Guidelines for the BUR, instead of from the Revised 1996 IPCC Guidelines). The TTE was unable to assess the consistency of the reported time series (see para. 28 above).

44. Zimbabwe reported in its BUR that the 1994 GHG inventory included in its INC was not recalculated. During the technical analysis, the Party clarified that the 1994 GHG inventory was not updated because the Party does not have a GHG inventory archiving system; therefore, the data sets used for the INC are no longer available.

45. Zimbabwe described in its BUR the institutional framework for the preparation of its GHG inventory. The Party reported that the Ministry of Environment, Climate, Tourism and Hospitality Industry is the governmental body responsible for its climate change policy and GHG inventory, which was prepared with the support of the United Nations Environment Programme. The Party also reported that the GHG inventory system is under development. During the technical analysis, Zimbabwe clarified that the development of a GHG inventory system has been completed and data have been uploaded into it. Additionally, the Party has started implementing its CBIT project, the outputs of which focus on strengthening the capacity of national institutions to coordinate, manage and implement climate transparency

activities and on developing tools, templates, guidance and protocols for preparing the GHG inventory.

46. Zimbabwe clearly reported that a key category analysis was performed for both the level of emissions for 2017 and the trend in emissions for 2000–2017, including land and HWP (categories 3.B and 3.D). An approach 1 assessment was applied in both cases. Key categories by level for 2017 were largely dominated by CO₂ emissions from AFOLU. In total, 62.5 per cent of the GHG emissions in the key category analysis came from land converted to grassland (28.7 per cent), land converted to forest land (22.6 per cent) and land converted to cropland (11.2 per cent).

47. The BUR provides information on QA/QC measures for all sectors. The information reported indicates that Zimbabwe applied the United States Environmental Protection Agency QA/QC template in preparing the BUR and that the draft BUR underwent peer review. Furthermore, the Party applied sector-specific QA/QC procedures, as follows: for the energy sector, AD were verified using information from IEA and the United Nations Statistics Division. For the IPPU sector, AD and EFs were reviewed, emission trends were analysed, and emissions were cross-checked with those for the energy sector to ensure double counting did not occur. For the AFOLU sector, the selection of AD and EFs was peer reviewed, and AD were verified with FAOSTAT. Finally, for the waste sector, AD from primary and secondary sources were compared, data trends were analysed, and AD, EFs and emission estimates were peer reviewed. However, the TTE noted inconsistencies in the emissions reported in BUR tables 2.3, 2.7 and 2.8. During the technical analysis, the Party clarified that these were attributable to the lack of a formal GHG inventory QA/QC procedure. The GHG inventory QA/QC plan has been included in Zimbabwe's CBIT project, which is currently being implemented.

48. Zimbabwe reported information on CO₂ fuel combustion emissions using both the sectoral and the reference approach. The information reported indicates that the combustion emissions estimated under the sectoral and reference approach are 9,415.48 Gg CO₂ and 9,852.28 Gg CO₂, respectively. The difference between the estimates calculated using the two approaches was reported as 4.6 per cent.

49. Information on the reasons for the significant differences observed between emissions calculated under the sectoral and reference approaches was not reported in Zimbabwe's BUR. During the technical analysis, the Party clarified that it could not identify the reasons for the differences during preparation of the BUR. The Party confirmed that it will investigate the differences further and report the reasons for them in the next NC, after it has developed detailed energy balances for the entire time series.

50. Information was reported on international aviation and marine bunker fuels for 2017. Zimbabwe reported that international waterborne navigation does not occur.

51. Information on the uncertainty assessment of the national GHG inventory was not reported in Zimbabwe's BUR. However, the Party provided relevant clarification in its BUR, indicating that information on uncertainties related to AD was generally not available from the data providers; hence an uncertainty analysis could not be performed. Zimbabwe also reported that uncertainty analysis is one of the main areas for which it requires capacity-building.

52. The TTE noted that the transparency of the information reported on GHG inventories could be further enhanced by addressing the areas noted in paragraphs 26, 28, 30, 32, 33, 44 and 49 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

53. As indicated in table I.2, Zimbabwe 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.

54. The information reported provides a clear overview of the Party's mitigation actions and their effects. In its BUR, Zimbabwe reported information on its national context and

framed its national mitigation planning and actions in the context of its National Climate Policy (2017), National Climate Change Response Strategy (2014), NDC (submitted in 2015) and Low-Emission Development Strategy (2020). Zimbabwe reported that climate change has been mainstreamed in and integrated into its development plans, including mitigation. The mitigation focus of Zimbabwe's NDC is the energy sector, for which the emission reduction target is 33 per cent below the projected 'business as usual' emissions per capita by 2030.

55. Five of the reported nine mitigation actions are in the energy sector, while two are in the waste sector and one is in each of the IPPU and AFOLU sectors. Four mitigation actions have an expected quantified emission reduction impact expressed in t CO₂ eq and one has an expected impact expressed in kg N₂O per t nitric acid produced. Zimbabwe reported that, once implemented, the annual reduction in GHG emissions from these four actions is expected to be 4,219,807.5 t CO₂ eq. The reduction in emissions from the use of N₂O abatement technology is estimated to be 6.75 kg N₂O/t nitric acid produced. The Party reported that the impact of this mitigation action was not included in the total estimated emission reduction of all mitigation actions, but that it will be included in future BURs. The impacts of other reported actions have not been estimated.

56. The Party reported a summary of its sectoral mitigation actions in tabular format in accordance with decision 2/CP.17, annex III, paragraph 11.

57. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Zimbabwe reported for each mitigation action the name, coverage (sector and gases), progress indicators and a clear description in the BUR (tables 3.2–3.10).

58. Information on quantitative goals for some of the mitigation actions (the Zimbabwe Biogas Digester Programme, the Electricity (Solar Water Heating) Regulations of 2019, the Zimbabwe Sunshine Group Integrated Solid Waste Management Project and the regional waste-to-energy plant in Bulawayo) was not reported in Zimbabwe's BUR. During the technical analysis, the Party clarified that the main reason for not reporting this information was the lack of institutional capacity as well as the need for technical and financial support to measure, report and verify quantitative goals.

59. Zimbabwe reported information on methodologies and assumptions, the objectives of the actions and steps taken or envisaged to achieve those actions, as well as the status of implementation, for all mitigation actions in the energy, IPPU, AFOLU and waste sectors.

60. The information reported in the BUR on the methodologies for several of the mitigation actions refers to methodologies in the 2006 IPCC Guidelines without describing how they were used or will be used in the future to estimate emission reductions. During the technical analysis, the Party clarified that it will use methodologies from the 2006 IPCC Guidelines both to calculate emissions for a baseline and to estimate emissions for a given implemented mitigation action. The difference between the two will be reported as the GHG emission reduction effect of that mitigation action. Zimbabwe will also develop an MRV framework for mitigation actions under the CBIT project, which is under way. Further, the Party explained the use of other methods reported in the BUR, namely the FAO EX-ACT tool, which will be used to track the progress of implementation of the Zambezi Valley Biodiversity Project, developed in collaboration with the GEF, because that tool was used to develop the project's baseline emissions.

61. The mitigation actions for the energy sector focus mainly on promoting renewable energy sources and improving energy efficiency. The renewable energy projects reported are the Batoka Gorge Hydropower Project, the Zimbabwe Biogas Digester Programme and three private sector solar photovoltaic projects. Three of the five mitigation actions in the energy sector were reported as being under implementation and two are in the planning phase. The anticipated impact was estimated for three mitigation actions, amounting to 4.08 Mt CO₂ eq/year by 2030. The mitigation action with the biggest emission reduction potential, the Batoka Gorge Hydropower Project, is a 2.4 GW hydroelectric plant that Zimbabwe is planning to develop on the Zambezi River, crossing the border Zimbabwe shares with Zambia. The estimated mitigation impact of this action is significant: 4 Mt CO₂ eq/year by 2030. During the technical analysis, the Party explained that the plant will be used as a peaking power plant in conjunction with solar power installations. As at 2020, the project's

engineering feasibility study, environmental and social impact assessment, and associated environmental and social management plans had been completed.

62. The aim of the Zimbabwe Biogas Digester Programme, which is under implementation, is to produce biogas from organic waste for cooking and heating. Although the GHG emission reduction impact of this programme has not been estimated, it is expected that 8,000 domestic biogas digesters will be built between 2014 and 2030, which will have a significant impact on GHG emissions as well as some co-benefits. Several progress indicators for this action were listed in the BUR, but progress against them could not be determined owing to a lack of capacity of implementing agencies.

63. The mitigation action reported for the IPPU sector is N₂O abatement in nitric acid production. The country's nitric acid production plant will be retrofitted with an N₂O abatement reactor catalyst, via which N₂O will decompose into its harmless constituents (i.e. nitrogen and oxygen). The N₂O emissions of the plant will be measured and monitored throughout the lifespan of the technology and the results will be documented.

64. Zimbabwe reported two mitigation actions for the waste sector, namely the Zimbabwe Sunshine Group Integrated Solid Waste Management Project, which commenced in 2018, and the planned regional waste-to-energy plant in Bulawayo. The aim of the Integrated Solid Waste Management Project is to reduce GHG emissions from solid waste disposal and treatment through composting and recycling. The results of the project will be monitored and the progress of implementation will be measured using the implementing partners' monitoring systems. In addition, an external evaluator will conduct an annual evaluation of progress. The waste-to-energy plant in Bulawayo is expected to reduce landfill waste by about 90 per cent, and to reduce GHG emissions in the waste and energy sectors. The electricity generated will be sold to industrial users and any excess will be fed into the grid.

65. The AFOLU sector has a high potential for achieving GHG emission reductions as it contributes significantly to national GHG emissions. The only sectoral mitigation action, in the forestry subsector, is the Zambezi Valley Biodiversity Project, which started in 2018 and is currently under implementation. The aim of the project is to increase removals from conservation areas; the estimated annual increase in removals is 139,136.5 t CO₂. Co-benefits are also expected, namely wildlife conservation and biodiversity preservation.

66. Information on ongoing progress and results already achieved for the mitigation actions that are under implementation was not reported in Zimbabwe's BUR. However, the Party provided relevant clarification in its BUR, indicating that Zimbabwe does not yet have a mechanism for tracking and reporting on ongoing progress and estimating results achieved. During the technical analysis, the Party further clarified that the development of a framework and tools for tracking results achieved has been included in the CBIT project.

67. Zimbabwe provided limited information on its involvement in international market mechanisms. Zimbabwe reported one of its mitigation actions, a 5 MW private sector solar photovoltaic project, as being implemented under the CDM. Zimbabwe explained that other projects are under development but not yet registered. Further, Zimbabwe does not yet have a legislative framework for market mechanisms, or a framework under which relevant projects can be tracked. Hence, data on market mechanisms were not readily available for reporting in the BUR.

68. Zimbabwe reported information on its domestic MRV arrangements in accordance with decision 2/CP.17, annex III, paragraph 13. The information reported indicates that Zimbabwe is in the process of designing and developing a domestic MRV system for mitigation actions for all IPCC sectors. Information on institutions, their roles and the degree of formalization of agreements with them is reported in the BUR. Zimbabwe explained in the BUR that it developed, with the support of the World Bank, an MRV system in 2017 for the intended nationally determined contribution, focusing on solar water irrigation projects. Support was also provided by FAO for developing an MRV system for actions in the AFOLU sector. However, the support was not sufficient to develop an MRV system for both mitigation and adaptation. Therefore, priority areas for intervention were identified. Zimbabwe has included the development of an MRV system for mitigation in the CBIT project.

69. The TTE noted that the transparency of the information reported on mitigation actions could be enhanced by addressing the areas noted in paragraphs 58 and 60 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

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

71. Zimbabwe 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, Zimbabwe identified inadequate data-collection and management processes and poor accessibility and availability of data relevant to the GHG inventory as constraints. It also identified the lack of sufficient skilled personnel, limited financial resources, low uptake of new technologies and weak institutional arrangements as barriers to implementing actions for mitigation priorities. Zimbabwe also provided in the BUR information on technical and capacity-building needs, as actions corresponding to its constraints and gaps, and on financial needs. Zimbabwe estimated its financial needs as USD 33.7 billion. The Party reported that the support pledged from various donors is USD 5,354,807.

72. Zimbabwe 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, Zimbabwe reported that it received USD 832,000 from the GEF, which included allocation for preparing both its first BUR and its NC4, but it did not receive any further financial resources. The information reported indicates that Zimbabwe received capacity-building and technical support from the United Nations Development Programme to facilitate its use of the 2006 IPCC Guidelines for preparing its GHG inventory.

73. Zimbabwe 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, Zimbabwe reported that the technology needs assessment was nationally determined. The Party noted that the most recent technology needs assessment was conducted in 2004 and, therefore, another assessment should be conducted to determine its updated technology needs in order to enhance climate change mitigation and adaptation actions.

74. Zimbabwe reported information on the technology support it received, such as equipment for monitoring air quality, for capturing HFCs and hydrochlorofluorocarbons from refrigeration and air-conditioning appliances, and for conducting forest inventories. However, it was not clear to the TTE whether these examples represented all the technology support received by the Party. During the technical analysis, the Party clarified that it did not report many examples of technology support received because the information was not readily available. Zimbabwe explained that it will develop, under the CBIT project, a framework and tools for tracking finance, technology and capacity-building support received.

75. The TTE noted that the transparency of the information reported on needs and support received could be further enhanced by addressing the area noted in paragraph 74 above, which could facilitate a better understanding of the information reported on needs and support received.

D. Identification of capacity-building needs

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

(a) Enhancing institutional arrangements and technical expertise for the continuous preparation and timely submission of national reports;

- (b) Implementing an effective QA/QC process in order to ensure the quality of submissions to the secretariat;
- (c) In relation to the GHG inventory:
 - (i) Investigating and reporting the reasons for the significant differences in CO₂ emissions for the energy sector calculated using the sectoral and reference approaches;
 - (ii) Collecting historical data on years previously reported in NCs in order to construct a consistent time series for all inventory sectors;
 - (iii) Applying IPCC splicing techniques to fill data gaps and construct a consistent time series for all inventory sectors;
 - (iv) Enhancing access to support for implementing an archiving system for inventory information;
 - (v) Reporting the methods and EFs applied to increase overall clarity of inventory information;
 - (vi) Developing, implementing and managing a QA/QC system for the inventory, including applying, documenting and archiving the results of QA/QC activities;
 - (vii) Planning, preparing and submitting the NIR, either as a stand-alone report or as a technical annex to the BUR;
- (d) In relation to mitigation actions and their effects:
 - (i) Reporting on methodologies and assumptions used for estimating emission reductions for mitigation actions;
 - (ii) Tracking progress of and reporting on the implementation of mitigation actions, underlying steps taken or envisaged to achieve them, and the results achieved;
 - (iii) Identifying and quantifying the progress required to meet the quantitative goals of mitigation actions, and verifying and reporting on the progress made;
 - (iv) Reinforcing institutional arrangements to enable the collection of information from the private sector in order to facilitate the monitoring of the implementation of mitigation actions and the tracking of their progress;
 - (v) Establishing a national framework for tracking projects related to international market mechanisms;
 - (vi) Identifying the most appropriate methodologies for developing progress indicators to facilitate reporting the progress of the implementation of mitigation actions, including emission reductions;
 - (vii) Enhancing technical capacity and training on the use of mitigation analysis tools and models for reporting relevant information on mitigation actions for the energy, AFOLU, IPPU and waste sectors;
 - (viii) Establishing technical capacity and training for assessing and quantifying impacts of mitigations actions, including establishing baselines, methods and assumptions; identifying mitigation options; and estimating emission reductions for the energy, AFOLU, IPPU and waste sectors.

77. The TTE noted that, in addition to those identified during the technical analysis, Zimbabwe reported several capacity-building needs covering the following areas:

- (a) Preparing GHG inventories, including uncertainty analysis, for the energy, AFOLU, IPPU and waste sectors;
- (b) Developing a national MRV system for mitigation actions for all IPCC sectors;
- (c) Developing a tracking system for finance, technology transfer and capacity-building support received.

III. Conclusions

78. The TTE conducted a technical analysis of the information reported in the first BUR of Zimbabwe in accordance with the UNFCCC reporting guidelines on BURs and concludes that the information reported is mostly 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; mitigation actions and their effects, including associated methodologies and assumptions; 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 BURs; and domestic MRV. During the technical analysis, additional information was provided by Zimbabwe on the national GHG inventory. The TTE concluded that the information analysed is mostly transparent.

79. Zimbabwe reported information on the institutional arrangements relevant to the preparation of its BURs. The Ministry of Environment, Climate, Tourism and Hospitality Industry, through the Climate Change Management Department, is responsible for preparing the Party's NCs and BURs. The Department is supported by the multisectoral National Climate Change Steering Committee, which provides sector-specific and cross-sectoral advice and guidance, as well as assistance in coordinating and implementing the climate change programmes the Department is responsible for.

80. In its first BUR, submitted in 2021, Zimbabwe reported information on its national GHG inventory for 2000–2017. This included GHG emissions and removals of CO₂, CH₄ and N₂O for all relevant sources and sinks as well as the precursor gases for the AFOLU sector. The inventory was developed on the basis of the 2006 IPCC Guidelines for the first time. The total GHG emissions for 2017 were reported as 24,460.79 Gg CO₂ eq (excluding land and HWP) and 37,786.60 Gg CO₂ eq (including land and HWP). A total of 14 key categories (under level assessment) and 15 key categories (under trend assessment) were identified, with CO₂ emissions from land converted to grassland, land converted to forest land and land converted to cropland identified as the three main categories for both level and trend assessment. Emissions of fluorinated gases were not estimated owing to difficulties in obtaining the necessary disaggregated data, as clarified by the Party in the BUR. Furthermore, the Party did not report an uncertainty analysis. Updated AD and EF values were also not reported in the BUR; however, the Party clarified during the technical analysis that this information will be included in the NIR, which will be submitted together with the NC4.

81. Zimbabwe reported information on mitigation actions and their effects in tabular format, and framed them in the context of its National Climate Policy, National Climate Change Response Strategy, NDC and Low-Emission Development Strategy 2020–2050. The 2030 emission reduction target for the energy sector is 33 per cent below the projected 'business as usual' emissions per capita and five of the nine mitigation actions are in the energy sector. The mitigation actions focus on promoting renewable energy, improving energy efficiency, implementing an integrated solid waste management programme, implementing N₂O abatement technology at a nitric acid production plant and reducing emissions from conservation areas.

82. Zimbabwe reported that the annual GHG emission reduction is expected to be 4,219,807.5 t CO₂ eq (the aggregated effect of the mitigation actions with estimated effects expressed in t CO₂ eq). The highest estimated emission reduction was reported for the Batoka Gorge Hydropower Project, amounting to 4 Mt CO₂ eq/year by 2030. The Party also reported one mitigation action that is being implemented under the CDM. Zimbabwe reported that it is in the process of designing and developing a domestic MRV system for mitigation actions in all IPCC sectors. Estimates of emission reductions and information on the progress of implementation were not provided because Zimbabwe does not yet have a mechanism for tracking and reporting on progress and estimating results achieved, as clarified by the Party during the technical analysis.

83. Zimbabwe reported information on key constraints, gaps and related needs, including, in relation to the GHG inventory, inadequate data-collection and management processes and

poor accessibility and availability of data. Information was reported on the technical, technology transfer and capacity-building support received. Zimbabwe estimated its financial needs as USD 33.7 billion. The Party also reported that it received financial support of USD 832,000 from the GEF for preparing its first BUR and NC4. Detailed information on technology needs was not reported owing to the lack of a recently conducted technology needs assessment, as clarified by the Party in the BUR.

84. The TTE, in consultation with Zimbabwe, 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. Zimbabwe prioritized all the capacity-building needs.

Annex I

Extent of the information reported by Zimbabwe 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 Zimbabwe

<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	Zimbabwe submitted its first BUR in September 2021; the GHG inventory reported is for 2000–2017.
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	Zimbabwe 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.	No	The updated AD and EFs used for estimating emissions were not reported.
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;	No	Comparable information was not reported.
	(b) The sectoral reporting tables annexed to the Revised 1996 IPCC Guidelines.	No	Comparable information was not reported.
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.	Yes	
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).	No	This information was not reported for 1994 (INC), 2000 (NC2) and 2006 (NC3).
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:		
	(a) Table 1 (National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not	Yes	Comparable information was reported in BUR table 2.2.

<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>
	controlled by the Montreal Protocol and greenhouse gas precursors);		
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆).	Partly	Comparable information was reported in BUR table 2.2.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	NA	
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	“NE” was reported for categories 1.B.1 (solid fuels) and 1.B.3 (other emissions from energy production).
	(b) CH ₄ ;	Partly	“NE” was reported for category 1.B.3 (other emissions from energy production).
	(c) N ₂ O.	Partly	“NE” was reported for category 1.B.3 (other emissions from energy production).
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;	Yes	
	(b) NO _x ;	Yes	
	(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	

<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 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.	Partly	CO ₂ emissions from fuel combustion were reported using the reference and sectoral approaches; however, differences between the two approaches were not explained.
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	The Party 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	Zimbabwe used the 2006 IPCC Guidelines. Tier 1 methodology was used for all sectors, except for cement production, for which tier 2 methodology was used.
	(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;		
	(iii) EFs;		
	(iv) AD;		
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building.	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>
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 used for some cells in BUR table 2.2.
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;	No	
	(b) Underlying assumptions;	No	
	(c) Methodologies used, if any, for estimating these uncertainties.	No	

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 Zimbabwe

<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 quantitative goals for some of the mitigation actions was not reported.
	(b) Information on:		
	(i) Methodologies;	Yes	
	(ii) Assumptions;	Yes	
	(c) Information on:		

<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>
	(i) Objectives of the action;	Yes	
	(ii) Steps taken or envisaged to achieve that action;	Yes	
	(d) Information on:		
	(i) Progress of implementation of the mitigation actions;	Partly	Information on the progress of mitigation actions under implementation was not reported.
	(ii) Progress of implementation of the underlying steps taken or envisaged;	Yes	
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible;	Partly	Information on results achieved to date for the implemented mitigation actions was not reported.
	(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 Zimbabwe

<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;	Yes	
	(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;	Yes	
	(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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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/gp/lulucf/gp/lulucf.html>.

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B. UNFCCC documents

First BUR of Zimbabwe. Available at <https://unfccc.int/BURs>.

NC3 of Zimbabwe. Available at <https://unfccc.int/non-annex-I-NCs>.

C. Other documents

The following references may not conform to UNFCCC editorial style as some have been reproduced as received:

GHG emissions inventories by sector and gas for 2000–2017, in Excel format;

Extract from Zimbabwe CBIT project description in relation to Output 1.3.
