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## **Report on the technical expert review of the first biennial transparency report of Guyana**

### **Addendum**

#### *Summary*

This addendum to the report on the technical expert review of the first biennial transparency report of Guyana, conducted by a technical expert review team in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement, contains the results of the review of the consistency of the information submitted by the Party with those modalities, procedures and guidelines, and presents capacity-building needs identified by the Party and by the technical expert review team in consultation with the Party during the review. The review took place from 30 September to 4 October 2024 in Georgetown, Guyana.



## Abbreviations and acronyms

2006 IPCC Guidelines	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
2019 Refinement to the 2006 IPCC Guidelines	<i>2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
AD	activity data
ART	Architecture for REDD+ transactions
BTR	biennial transparency report
C	carbon
CH <sub>4</sub>	methane
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> eq	carbon dioxide equivalent
CRT	common reporting table
CTF	common tabular format
DECC	Department of Environment and Climate Change of Guyana
EF	emission factor
FX	flexibility
GDP	gross domestic product
GHG	greenhouse gas
HFC	hydrofluorocarbon
HWP	harvested wood products
IE	included elsewhere
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
ITMO	internationally transferred mitigation outcome
LULUCF	land use, land-use change and forestry
MPGs	modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
N <sub>2</sub> O	nitrous oxide
NA	not applicable
NDC	nationally determined contribution
NE	not estimated
NF <sub>3</sub>	nitrogen trifluoride
NIR	national inventory report
NO	not occurring
PaMs	policies and measures
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)
SF <sub>6</sub>	sulfur hexafluoride
SWDS	solid waste disposal site(s)
TERT	technical expert review team

## I. Areas of improvement<sup>1</sup> identified during the technical expert review of the Party's first biennial transparency report

1. Tables 1–14 present the results of the review of the consistency with the MPGs<sup>2</sup> of the information submitted by Guyana in its BTR1. All recommendations and encouragements contained in the tables are for the next BTR, unless otherwise specified.

### A. General reporting provisions

Table 1

#### Areas of improvement relating to general reporting provisions

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
1.1	Specified in paragraph 6 of the MPGs	<p>The TERT identified during the review that Guyana applied flexibility in reporting information on the GHG inventory and on tracking progress in implementing and achieving its NDC under Article 4 of the Paris Agreement, but that the Party's use of flexibility was not transparently reported in the BTR. In particular, Guyana reported in the BTR that its national GHG inventory covers seven GHGs, namely CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>, and reported "NE" for HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> without mentioning whether the flexibility provided in paragraph 48 of the MPGs was applied. However, "FX" was reported for HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> in the CRTs. No information required by paragraph 6 of the MPGs was provided in the BTR or in the CRTs. Similarly, Guyana reported emission reduction estimates for most PaMs, as required by paragraph 85 of the MPGs, in the BTR without referring to the application of flexibility; however, in CTF table 5, "FX" was reported for achieved and expected impacts.</p> <p>During the review, Guyana confirmed that it used the provided flexibility in these cases, although this was not clearly reported in the BTR.</p> <p>The TERT recommends that the Party clearly indicate its application of flexibility and the relevant provisions of the MPGs for reporting information on the GHG inventory and tracking progress of its NDC; concisely clarify capacity constraints, noting that some constraints may be relevant to several provisions; and provide self-determined estimated time frames for improvements in relation to those capacity constraints.</p>

### B. Greenhouse gas emissions and removals

Table 2

#### Areas of improvement relating to general findings on greenhouse gas emissions and removals

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
2.G.1	Specified in paragraph 25 of the MPGs Key category analysis	<p>Guyana identified 20 key categories as a result of level and trend assessments for 1990 (the starting year of the time series) and 2022 (the latest reported year), including and excluding LULUCF, using approach 1, as reported in table 2.15 of the BTR. The key category analysis was performed in accordance with the 2006 IPCC Guidelines, but the TERT found an error in the equation used by Guyana for the trend assessment calculation.</p> <p>During the review, the TERT provided the correct equation and the corresponding result of the trend assessment to Guyana for its consideration. The result was different from the one originally reported, but it did not change the list of key categories resulting from the key category analysis, including the level and trend assessments. Guyana agreed with the TERT on the use of the correct equation for the trend assessment and the result derived from it.</p> <p>The TERT recommends that Guyana improve its key category analysis by using the rectified equations provided in the 2006 IPCC Guidelines. Alternatively, the</p>

<sup>1</sup> As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs, contained in the annex to decision 18/CMA.1.

<sup>2</sup> Decision 18/CMA.1, annex.

ID#	Reporting requirement	Description of area of improvement with recommendation or encouragement
2.G.2	Specified in paragraphs 21 and 23 of the MPGs Methods	<p>TERT notes that Guyana may improve its key category analysis by using the 2019 Refinement to the 2006 IPCC Guidelines in accordance with paragraph 28 of decision 5/CMA.3.</p> <p>Guyana applied tier 1 methods for estimating emissions for all key categories except for the LULUCF sector, which is not in line with the corresponding decision trees from the 2006 IPCC Guidelines and did not fully explain the reasons for doing so in the BTR. During the review, Guyana explained that this was due to data limitations.</p> <p>The TERT encourages Guyana to use a method from the 2006 IPCC Guidelines for key categories in accordance with paragraph 21 of the MPGs. Furthermore, the TERT recommends that Guyana clearly explain why the methodological choice was not in line with the corresponding decision trees from the 2006 IPCC Guidelines in accordance with paragraph 23 of the MPGs in cases where a tier 1 method was applied for key categories.</p>
2.G.3	Specified in paragraph 23 of the MPGs Further improvements	<p>The TERT commends Guyana for including in the BTR information on data gaps and an improvement plan for each sector. However, the plan does not mention efforts to use higher-tier estimation methods for the key categories under the energy, agriculture and waste sectors. The improvement actions described in the plan are not sufficient to enable the use of higher-tier methods for the key categories.</p> <p>During the review, Guyana clarified that it is taking steps to enhance its data management system to support the use of higher-tier estimation methods for the key categories.</p> <p>The TERT encourages Guyana to clearly indicate in the improvement plan reported in the BTR that it prioritizes key categories for future improvement and describe any ongoing or planned work to support the use of higher-tier estimation methods for those categories.</p>
2.G.4	Specified in paragraph 29 of the MPGs Uncertainty analysis	<p>Guyana reported in the BTR quantitative estimates of the uncertainty of the emissions and removals for each source and sink category, and that of the inventory totals (81.27 per cent), for 2022 using approach 1, as well as quantitative estimates of the trend uncertainty of emissions and removals for each source and sink category, and that of the inventory totals (22.30 per cent), between 1990 and 2022. However, Guyana did not report quantitative estimates of uncertainty for 1990.</p> <p>During the review, Guyana provided the TERT with uncertainty estimates for 1990, with the uncertainty of inventory totals estimated as 79.00 per cent.</p> <p>The TERT recommends that Guyana improve its reporting on uncertainty by including uncertainty estimates for 1990 together with the estimates for the latest reported year and the trend uncertainty.</p>
2.G.5	Specified in paragraphs 34, 35 and 46 of the MPGs QA/QC and verification	<p>Guyana provided information in the BTR on its QA/QC procedures, indicating that DECC (the Government agency responsible for developing and implementing national policies for mainstreaming climate change and coordinating efforts to mitigate and adapt to the effects of climate change), under the Office of the President, is responsible for overseeing all QA/QC activities in the country in collaboration with international consultants and with the support of the Global Green Growth Institute. The TERT noted that this explanation is not sufficient to serve as an inventory QA/QC plan according to the 2006 IPCC Guidelines, since a time frame for the QA/QC activities is not included. Moreover, it is not clear what kind of QC checklists were used and whether those who conducted the QA activities were directly involved in the inventory compilation or development processes.</p> <p>During the review, Guyana agreed that there is room for improvement with regard to the information provided in the BTR on the QA/QC plan. Guyana provided a document containing QA results, but no general or sector-specific QC checklists were provided. In addition, Guyana confirmed that the QA results were prepared by senior international consultants who were independent experts not directly involved in the inventory compilation or development processes.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
		The TERT recommends that Guyana improve the information reported in the BTR on the QA/QC plan by including a time frame for the QA/QC activities and clearly specifying the role of each international consultant to illustrate that those performing QA activities were not directly involved in the inventory compilation or development processes.
2.G.6	Specified in paragraphs 31 and 47 of the MPGs Completeness	<p>The TERT noted that CRT 9 does not include an explanation for each category reported as “NE” or information on emissions allocation for each category reported as “IE”, as per the 2006 IPCC Guidelines.</p> <p>During the review, Guyana agreed that incomplete information was provided in CRT 9.</p> <p>The TERT recommends that Guyana make efforts to estimate and report GHG emissions for the categories for which estimation methods are included in the 2006 IPCC Guidelines. The TERT recommends that Guyana complete CRT 9 by providing the information required in the column entitled “Explanations” for categories reported as “NE” and in the columns entitled “Allocation as per IPCC Guidelines”, “Allocation used by the Party” and “Explanations” for categories reported as “IE”.</p>

Table 3

**Areas of improvement of the reporting on greenhouse gas emissions and removals – energy sector**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
3.E.1	Specified in paragraph 40 of the MPGs 1. General (energy sector) – natural gas – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<p>Guyana estimated emissions from the energy sector using the tier 1 approach, basing its estimates on energy balances provided by the Latin American Energy Organization. In the BTR it reported that complete energy balances are available for 2000–2016, while for 1990–1999 and 2017–2022 the distribution of fuel by sector and subsector was estimated through extrapolation, using the available information on shares of fuel use for 2000 and 2016 respectively, noting that information is available on total supply for each fuel. The TERT noted that for 2019–2022 the amount of natural gas combusted to produce electricity in oil and gas production and extraction platforms is not included in the energy balance, and these data were not used for the calculation of the relevant category for 1990–1999 and 2017–2022, leading to an underestimation of GHG emissions under category 1.A fuel combustion. The TERT also noted that improvements to the national energy balance was included as a priority in the planned improvements reported in table 2.63 of the BTR (p.194).</p> <p>During the review, Guyana confirmed that information on the amount of gas used in the production of electricity for oil and gas production for 2019–2022 is available.</p> <p>The TERT recommends that Guyana estimate GHG emissions from natural gas combustion in the production of electricity for oil and gas production for all relevant years for its next BTR.</p> <p>The TERT encourages Guyana to collect the necessary information to ensure that the amount of fuel used is correctly allocated to the relevant energy sector categories and subcategories to improve the accuracy of emission estimates under the energy sector.</p>
3.E.2	Specified in paragraphs 21 and 23 of the MPGs 1.B.2.a Oil – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<p>Guyana calculated emissions for this subcategory using the tier 1 EFs provided in table 4.2.4a of the 2019 Refinement to the 2006 IPCC Guidelines (vol. 2, chap. 4) and AD provided by the oil producer. CO<sub>2</sub> and CH<sub>4</sub> from oil production are key categories for 2022, and emissions under this subcategory are expected to increase in future. The TERT noted a calculation error that resulted in an overestimation of GHG emissions in 2022 by about 1.2 Mt CO<sub>2</sub> eq; the amount of oil produced was erroneously added to the amount of gas flared.</p> <p>During the review, Guyana revised the calculation and confirmed that the error caused an overestimation. It also confirmed that CO<sub>2</sub> and CH<sub>4</sub> oil and gas production remains a key category and that it has started to implement improvements to the calculations with the aim of using a tier 2 or tier 3 methodology for the next BTR. During the review, the TERT noted that Guyana</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
		probably already has relevant information for this category, including AD, which would enable it to use a higher-tier method.  The TERT recommends that the Party calculate GHG emission estimates on the basis of oil production AD, and that it should not take into account the amount of gas flared when using the tier 1 EFs provided in table 4.2.4a of the 2019 Refinement to the 2006 IPCC Guidelines (vol. 2, chap. 4) for the next BTR.  The TERT encourages Guyana to improve the calculation of this category by using a higher-tier method.
3.E.3	Specified in paragraph 53 of the MPGs  International aviation – jet fuel – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Guyana reported in the BTR and CRTs emissions from international aviation as “NE” for the whole time series. The TERT noted that the energy balance includes data on jet fuel used for transport, but not on bunker fuels.  During the review, Guyana explained that international flights refuel in the country’s international airports, but all fuel reported in the energy balance is allocated to domestic aviation. The TERT considers that this results in an overestimation of GHG emissions for subcategory 1.A.3.a (domestic aviation). The TERT noted that criteria for defining domestic and international aviation are provided in table 3.6.6 of the 2006 IPCC Guidelines (vol. 2, chap. 3, p.3.65).  The TERT recommends that Guyana revise the GHG emission estimates for domestic and international aviation using the methodologies provided in the 2006 IPCC Guidelines and report the revised estimates under the relevant categories in the CRTs of its next BTR.

Table 4

**Areas of improvement of the reporting on greenhouse gas emissions and removals – industrial processes and product use sector**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
4.I.1	Specified in paragraphs 6 and 48 of the MPGs  2. General (IPPU) – HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>	Guyana reported emissions of HFCs, PFCs, SF <sub>6</sub> and NF <sub>3</sub> as “NE” and “FX” in the CRTs and included their estimation as a planned improvement in table 2.64 of the BTR (p.195).  During the review, Guyana explained that it used the flexibility provided in paragraph 48 of the MPGs in this regard and is taking steps to implement projects with international technical partners to put the necessary data-collection procedures in place for estimating emissions from the use of HFCs and PFCs, and that import data from the Guyana Revenue Authority will be a core part of the emission estimation.  The TERT encourages Guyana to implement the planned improvement with a view to estimating emissions of fluorinated gases for the next BTR.

Table 5

**Areas of improvement of the reporting on greenhouse gas emissions and removals – agriculture sector**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
5.A.1	Specified in paragraph 31 of the MPGs  3.E Prescribed burning of savannahs – CH <sub>4</sub> , N <sub>2</sub> O	Guyana reported “NO” for CH <sub>4</sub> and N <sub>2</sub> O emissions and “NE” for emissions of nitrogen oxides, carbon monoxide, non-methane volatile organic compounds and sulfur dioxide for category 3.E (prescribed burning of savannahs) in the CRTs.  During the review, Guyana explained that, since prescribed burning of savannahs occurs in the country, CH <sub>4</sub> and N <sub>2</sub> O emissions should also have been reported as “NE”.  The TERT recommends that Guyana use appropriate notation keys in its reporting for category 3.E (prescribed burning of savannahs), indicating the reasons for not estimating and reporting emissions under the category if this is not possible.
5.A.2	Specified in paragraph 35 of the MPGs	The TERT noted several reporting errors under the agriculture sector in the BTR and the CRTs, including errors affecting key categories. The reporting errors were incorrect use of notation keys (see ID# 5.A.1

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
	General (agriculture sector)	<p>above), inaccurate information on the source of EFs used to estimate indirect N<sub>2</sub>O emissions from managed soils in table 2.12 of the BTR, and data entry errors for the population of non-dairy cattle and poultry in the CRTs.</p> <p>During the review, Guyana agreed that there is a need to correct the errors identified.</p> <p>The TERT encourages Guyana to enhance category-specific QC procedures to avoid errors in reporting and improve the accuracy of emission estimates.</p>

Table 6

**Areas of improvement of the reporting on greenhouse gas emissions and removals – land use, land-use change and forestry sector**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
6.L.1	Specified in paragraph 22 of the MPGs LULUCF – CO <sub>2</sub>	<p>The Party used nationally appropriate methodologies to estimate CO<sub>2</sub> emissions and removals from forest land remaining forest land, and forest land converted to cropland, settlements or other land, but it did not provide in its BTR complete information on the methods, data and parameters used.</p> <p>During the review, the Party provided several references to explain the methodologies, assumptions, data and parameters used for its emission and removal estimates.</p> <p>The TERT recommends that Guyana include in its next BTR the updated information provided during the review, particularly regarding the methods and AD and EFs used for estimating CO<sub>2</sub> emissions and removals from forest land to enhance the transparency of the submission.</p>
6.L.2	Specified in paragraph 26 of the MPGs LULUCF – CO <sub>2</sub>	<p>Guyana presented GHG estimates for 1990–2022 using the 2006 IPCC Guidelines. However, AD and EFs for 1990–2016 were not always available and some assumptions had to be made, including maintaining constant the areas of forest converted to agriculture and settlements for 1990–2010. During the review, Guyana explained that complete background information, including AD and their sources, EFs and estimated emissions, was not available to estimate emissions consistently throughout the entire GHG inventory. Owing to a lack of data for certain subcategories, different splicing techniques from the 2006 IPCC Guidelines (vol. 1, chap. 5, p.5.8) were applied.</p> <p>The TERT encourages the Party to seek additional proxy data to fill in the estimation gaps for 1990–2016 to improve the accuracy of the estimates and decrease related uncertainties, and to provide transparent information on how the data were used to fill the gaps for 1990–2016.</p>
6.L.3	Specified in paragraph 30 of the MPGs LULUCF – CO <sub>2</sub>	<p>Guyana did not report emissions and removals for several categories for which estimation methods are included in the 2006 IPCC Guidelines; for example, for post-deforestation removals, of the 12 subcategories that should be reported in the LULUCF inventory, the Party reported only 4: forest land remaining forest land, forest land converted to cropland, forest land converted to settlements, and forest land converted to other land.</p> <p>The subcategories not reported are forest land converted to grassland and to wetlands; cropland remaining cropland; cropland converted to other land-use categories; grassland remaining grassland; grassland converted to other land-use categories; wetlands remaining wetlands; wetlands converted to other land-use categories; settlements remaining settlements; settlements converted to other land-use categories; other land remaining other land; and other land converted to other land-use categories.</p> <p>The Party explained in the BTR that these subcategories were excluded from the reporting because the associated transition periods do not meet the transition period criteria of the GHG inventory, emissions under the subcategories could be considered negligible, and/or because of a lack of data.</p> <p>During the review, with regard to why estimates were not provided for all subcategories, Guyana clarified that it monitors drivers for deforestation and</p>

ID#	Reporting requirement	Description of area of improvement with recommendation or encouragement
6.L.4	Specified in paragraph 31 of the MPGs LULUCF – CO <sub>2</sub>	<p>forest degradation, as well as total forest area. This information enables the Party to report GHG emissions and removals in CRTs 4.A, B, E and F. Since Guyana focuses on the main drivers of deforestation and forest degradation, only the relevant subcategories are reported. The remaining land-use categories are not considered in the national monitoring system, and no data are available to produce estimates; “NE” is therefore used to report emissions and removals for these categories.</p> <p>The TERT acknowledges that Guyana focused its reporting on the main LULUCF subcategories, but notes that the non-reporting of most of the LULUCF subcategories results in a GHG inventory that is not complete and recommends that the Party reports on all the LULUCF subcategories in the next BTR to ensure completeness of the national inventory, unless the Party identifies the need for flexibility based on its national circumstances.</p> <p>Guyana did not use notation keys consistently in the text of the BTR and the CRTs for the LULUCF sector. For example, some omitted subcategories were reported as “NE” in the BTR, and as “NO” in the CRTs. Or in the case of HWP, in tables 2.2 and 2.37 of the BTR (pp.91 and 151 respectively) “IE” and “NE” were used respectively, whereas in CRT 4 “NO”, “NE” and “IE” were reported for CO<sub>2</sub> emissions and removals.</p> <p>The TERT requested an explanation of the use of “IE” for the estimates of net emissions from HWP, since the BTR indicates that these estimates were included in the estimates of emissions and removals for forest land remaining forest land. During the review, Guyana provided a Microsoft Excel sheet with historical data containing information regarding HWP from sawnwood, wood panels and other industrial roundwood, as well as other data regarding harvesting and export of HWP included in the ART Excel workbook estimation tool. The tool, which provides the calculations and analyses for determining the emission reductions resulting from Guyana’s REDD+ programme, was provided to the TERT during the review and was helpful for checking calculations for the forest-related subcategories reported. However, the lack of disaggregated HWP data for forest land remaining forest land and the lack of clear methodological information in the BTR limited the ability of the TERT to assess whether the approach used follows the production approach presented in the 2006 IPCC Guidelines.</p> <p>The TERT recommends that Guyana provide transparent information on the methodology and data used to estimate the annual changes in the HWP pool, disaggregate the fraction of biomass that is transferred to the HWP pool and report this pool separately in the CRF table 4.G.</p>
6.L.5	Specified in paragraph 48 of the MPGs 4(IV) Biomass burning – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<p>Guyana reported CH<sub>4</sub> and N<sub>2</sub>O emissions from forest fires and biomass burning using the methodology and EFs provided in the 2006 IPCC Guidelines. In CRT 4(IV), Guyana reported area burned and CH<sub>4</sub> and N<sub>2</sub>O emissions for the categories forest land remaining forest land, controlled burning in cropland remaining cropland, and wildfires in forest land converted to cropland. It is not clear how the AD, including the estimated mass of fuel available for cropland remaining cropland, including above-ground biomass and litter, were acquired and whether they are consistent throughout the time series. During the review, Guyana provided the TERT with calculations conducted using the ART Excel workbook tool, which identified a single combustion factor of 0.5, without clearly referencing how it was derived and why it would be applicable to all the above-mentioned categories reported.</p> <p>During the review, the Party clarified that the AD for area burned are derived from its national mapping process, using data from the Moderate Resolution Imaging Spectroradiometer/Fire Information for Resource Management System database as reference.</p> <p>The TERT recommends that Guyana provide in the next BTR all the information used to estimate emissions from wildfires and controlled burning under category 4(IV) biomass burning, and any assumptions made regarding both the mass of fuel available (above-ground biomass) and the combustion factor used in the estimation.</p>

ID#	Reporting requirement	Description of area of improvement with recommendation or encouragement
6.L.6	Specified in paragraph 55 of the MPGs LULUCF – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<p>Guyana indicated in annex B to the BTR that, it reported emissions and subsequent removals from natural disturbances following the 2006 IPCC Guidelines.</p> <p>During the review, Guyana explained that, despite the unusually high number of fires in the country, for the calculations they were assumed to be of an anthropogenic nature, and it was assumed that the natural disturbance methodology in the 2019 Refinement to the 2006 IPCC Guidelines would not be applicable. The TERT noted that the 2019 Refinement to the 2006 IPCC Guidelines includes under natural disturbances fire occurring during particularly harsh conditions, such as strong winds, high temperatures and drought, that are not induced by humans and exacerbate the disturbance.</p> <p>Based on the above, the TERT encourages Guyana to explore whether emissions and subsequent removals from natural disturbances could be reported by disaggregating all emissions and removals on managed land into those that are considered to result from human activities and those that are considered to result from natural disturbances.</p>
6.L.7	Specified in paragraph 56 of the MPGs 4.A Forest land – CO <sub>2</sub>	<p>Guyana reported CO<sub>2</sub> removals for forest land remaining forest land using an EF of 2.34 t C/ha/year sourced from a long-term research study carried out within an active timber concession in the Guiana Shield (Global Change Biology, 2017). This EF was applied to an area some 15.7 million ha in size (11.0 million ha in State forests (timber land and mineral extraction), 2.4 million ha in agriculture State lands (agriculture activities) and 2.3 million ha in Amerindian lands), resulting in removals of approximately 135 million t CO<sub>2</sub> eq. Removals in protected areas, totalling 1.1 million ha, and inaccessible areas, totalling 1.2 million ha, were not included.</p> <p>During the review, the TERT questioned the use of a single factor (2.34 t C/ha/year) for 86 per cent of forest land in the country, which is likely to be made up of different forest conditions (e.g. logged, mined, primary). In response, Guyana provided revised estimates, disaggregating the estimates for State forest into three different elements: (1) timber harvesting, (2) mining and (3) conservation area. The EF of 2.34 t C/ha/year was applied to element (1), whereas for elements (2) and (3) the Party applied the default value of 1.0 t dry matter/ha/year or 0.47 t C/ha/year for above-ground net biomass growth in natural forests from the 2019 Refinement to the 2006 IPCC Guidelines (vol. 4, table 4.9). Therefore, an area of approximately 6.3 million ha was allocated for timber harvesting, 1.1 million ha was allocated for mining and 4.8 million ha was allocated for conservation areas, totalling approximately 12.2 million ha. The areas under agriculture State lands and Amerindian lands remained the same as in the submission, and the EF of 2.34 t C/ha/year was applied. Protected areas were included after an exchange with the TERT, and the default value of 0.47 t C/ha/year from the 2019 Refinement to the 2006 IPCC Guidelines (vol. 4, table 4.9) was applied. The revised total removals totalled 106,533,237 t CO<sub>2</sub>/year over an area of 18 million ha. During the review, the TERT discussed the use of the EF of 2.34 t C/ha/year for Amerindian lands, and Guyana explained that over 45 per cent of its timber harvesting comes from small operators, including Amerindian villages, and harvesting on State lands. For this reason, the level of disturbance is not as low as it would be in conservation and protected areas. Regarding the use of the EF of 2.34 t C/ha/year in agriculture on State lands, Guyana explained that the area comprises mainly agroforestry activities. The TERT acknowledges that removals from forest land is a very important issue given their size and possible use in carbon markets, and notes that the Party should therefore strive to improve its categorization of the intensity of disturbances (low and high impact).</p> <p>The TERT recommends that Guyana examine the intensity of disturbances across the areas of the country to further improve the categorization of the low- and high-impact areas, so as to refine the estimates and EFs for informing the reporting on CO<sub>2</sub> removals while applying IPCC good practice to ensure estimates are calculated correctly.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
6.L.8	Specified in paragraph 20 of the MPGs  LULUCF	<p>Guyana used the 2006 IPCC Guidelines for its estimates in the LULUCF sector, but did not provide information on consistent representation of lands (vol. 4, chap. 3, of the 2006 IPCC Guidelines), which is the starting point for identifying the annual areas of change among the IPCC categories. Guyana only identified the areas of forest land remaining forest land, and forest land converted to cropland, settlements or other land, from which the associated emissions were estimated.</p> <p>During the review, Guyana stressed that its estimations focus on forest land converted to other land (deforestation) and on forest land remaining forest land (forest degradation). For these purposes, a complete land representation was not the priority, especially considering that this is the first time that the Party used the 2006 IPCC Guidelines for the LULUCF inventory, and that the national monitoring system does not have data available for other subcategories, such as grassland and wetlands.</p> <p>The TERT recommends that the Party ensure consistent representation of lands, and estimate the area changes between reporting periods and accurately report them in the next BTR, taking into account national circumstances and capacities, as appropriate.</p>
6.L.9	Specified in paragraph 20 of the MPGs  LULUCF – CO <sub>2</sub>	<p>The TERT identified some inconsistencies in the reporting of the area of forest land converted to settlements, reported as 0.44 kha in CRT 4.1 and as 0.11 kha in CRT 4.E for 2022. The TERT noted that losses from changes in carbon stocks in living biomass per area for forest land converted to settlements were estimated as –1,129.54 t C/ha, which differs significantly from the losses from changes in carbon stocks in living biomass per area reported for forest land converted to cropland (297.13 t C/ha).</p> <p>During the review, Guyana explained that some transcription errors occurred during the process of completing the CRTs, and that these will be addressed in the next BTR.</p> <p>The TERT recommends that Guyana enhance its QC procedures to avoid inconsistencies that affect the accuracy of the net emissions reported in future BTRs.</p>
6.L.10	Specified in paragraphs 39 and 40 of the MPGs  LULUCF	<p>The TERT experienced some difficulties in reviewing the information reported by the Party for the LULUCF sector, mostly owing to the lack of relevant information in the BTR that would facilitate a full understanding of the approaches used for estimating emissions and removals. The text of the BTR does not include details of the methodological approaches used and the EFs applied, which hindered the ability of the TERT to gain an overall view of the process used to generate the LULUCF inventory.</p> <p>The ART Excel workbook tool was helpful for checking EFs and other parameters used, as well as the calculations for the forest-related subcategories reported. However, it was difficult to review the method for obtaining the actual estimations, possibly because the tool was not developed specifically for the LULUCF inventory.</p> <p>The TERT recommends that Guyana provide complete and transparent information on the methodologies and assumptions used for its estimates, as well as on the sources of the AD and EFs used, to facilitate the review process and enhance the transparency of future BTRs.</p>

Table 7

**Areas of improvement of the reporting on greenhouse gas emissions and removals – waste sector**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
7.W.1	Specified in paragraph 39 of the MPGs  General (waste sector) – CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<p>Guyana explained in the BTR that 83 per cent of municipal solid waste is deposited at SWDS, 13 per cent is subject to open burning and 4 per cent is treated in other ways (recycled, composted or treated using unspecified methods under pilots or at the local scale with a view to commercializing the treatment method or achieving large-scale deployment across the country). This ratio was used for estimating GHG emissions for 1990–2022.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
7.W.2	Specified in paragraph 31 of the MPGs 5.A.2 Unmanaged waste disposal sites – CH <sub>4</sub>	<p>During the review, Guyana explained that the construction of the Haags Bosch sanitary landfill site in 2011 did not have a significant impact on the proportion of total municipal solid waste generated sent to SWDS (83 per cent) because the site changed the final destination of collected waste from dump to landfill; it did not increase the amount of waste collection services. The TERT appreciated this explanation.</p> <p>The TERT recommends that Guyana include in the BTR the explanation provided during the review to support the assumption used for the proportion of municipal solid waste sent to different waste treatment systems.</p> <p>Guyana reported “IE” for CH<sub>4</sub> emissions for category 5.A.2 (unmanaged waste disposal sites, described as category 4.A.2 in the BTR) in the CRTs, but did not specify in the BTR or CRT 9 under which category the estimates were included.</p> <p>During the review, Guyana clarified that CH<sub>4</sub> emission estimates are included under category 5.A.3 (uncategorized waste disposal sites, described as category 4.A.3 in the BTR) owing to a lack of information on operating conditions at controlled and open dumps, except for the Haags Bosch sanitary landfill site, which is covered by category 5.A.1 (managed waste disposal sites, described as category 4.A.1 in the BTR). Guyana also explained that, as indicated in the improvement plan (table 2.66 of the BTR), it will take steps to enable the classification of SWDS into managed aerobic, managed anaerobic, unmanaged deep or unmanaged shallow sites in accordance with the definitions provided in the 2006 IPCC Guidelines (vol. 5, table 3.1).</p> <p>The TERT encourages Guyana to expedite the implementation of its improvement plan so that emissions can be reported under category 5.A.2 without the use of “IE” in the next BTR. The TERT recommends that, if Guyana needs to report the notation key for this category in its next BTR, Guyana clearly indicate its reasons for reporting “IE”, as it did during the review, in CRT 9 (see ID# 2.G.6 above).</p>

### **C. Information necessary to track progress in implementing and achieving the nationally determined contribution under Article 4 of the Paris Agreement**

Table 8

#### **Areas of improvement of the reporting on national circumstances and institutional arrangements**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
8.1	Specified in paragraphs 61 and 63 of the MPGs	<p>Guyana did not report complete information on the institutional arrangements in place for tracking progress in implementing and achieving its NDC. Specifically, information was not reported on the institutional arrangements used for tracking ITMOs in sectors other than the forestry sector, and it was not clear whether Guyana intends to limit its use of ITMOs to the forestry sector.</p> <p>During the review, Guyana explained that its ITMOs cover the forestry sector only. DECC is the coordinating agency for NDC tracking and BTR reporting and will coordinate with government and non-government agencies to track progress on implementing and achieving its NDC and ensure consistent reporting regarding Article 6 of the Paris Agreement.</p> <p>The TERT recommends that the Party report on how it intends to use ITMOs and on the institutional arrangements used for tracking ITMOs in all sectors where ITMO use is planned.</p>
8.2	Specified in paragraphs 62–63 of the MPGs	<p>Guyana did not report complete information on legal, institutional, administrative and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC. Specifically, Guyana indicated that its NDC targets are based on policy (mitigation actions) and it intends to further develop the measurement, reporting and verification system for mitigation actions in future. Consequently, the current arrangements for tracking</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
		<p>the actions specified in the NDC and progress against the indicators provided in the BTR and its annex on NDC tracking were not described.</p> <p>During the review, Guyana explained that progress of its NDC targets was tracked to ensure that they met various reporting requirements, which involve different timelines. DECC, with support from local and international experts, was responsible for overseeing the development of indicators and projections, coordinating data collection and approving the use of data. However, there are not yet any formal institutional arrangements in place between DECC and these parties. In addition, Guyana provided information during the review and in the institutional overview in the BTR of the Party’s Low Carbon Development Strategy 2030 on its strategic arrangement for the implementation of its NDC.</p> <p>The TERT recommends that the Party report on existing legal, institutional, administrative and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC.</p>

Table 9  
**Areas of improvement of the description of the nationally determined contribution under Article 4 of the Paris Agreement, including updates**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
9.1	Specified in paragraph 64(a) of the MPGs	<p>Guyana did not consistently describe its unconditional energy target across its BTR, the annex to the BTR on NDC tracking and its CTF tables. The BTR describes various policies and actions that Guyana plans to implement unconditionally in the energy sector and are expected to lead to an increase in renewable energy consumption and energy efficiency improvements. The annex to the BTR on NDC tracking and the CTF tables describe the commitment as directly aiming to expand renewable energy supply (wind, solar, biomass and hydropower), reduce energy consumption and increase energy efficiency, but indicate that these are policy-based commitments.</p> <p>During the review, Guyana confirmed that the unconditional target in the energy sector is to implement PaMs that are expected to result in increased renewable energy consumption and reduced energy consumption, and that commitments are policy-based. It further clarified that, although commitments are policy-based, the Party has decided to track progress towards its NDC using quantitative indicators that track overall renewable energy supply and fossil fuel consumption.</p> <p>The TERT recommends that the Party consistently describe its commitments across the BTR and its annexes, including the CTF tables.</p>

Table 10  
**Areas of improvement of the reporting of the information necessary to track progress in implementing and achieving the nationally determined contribution under Article 4 of the Paris Agreement**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
10.1	Specified in paragraph 67 of the MPGs	<p>Guyana did not provide the required information for each selected indicator. Specifically, the information provided for two indicators (energy consumption from fossil sources, and energy consumption from fossil sources per unit of GDP) for the base year (2016) was not consistent with the definitions of these indicators provided in the BTR or the AD used for GHG inventory calculations, which were specified as the source of the data for the energy consumption component of these indicators.</p> <p>In addition, Guyana reported that it uses the same indicator (energy supply from renewable sources) to track the progress of conditional and unconditional commitments in the energy sector. However, the reference level for 2025 was only reported for the unconditional commitment, and not for the conditional one.</p> <p>During the review, Guyana confirmed that the correct values for 2016, and therefore the correct target levels for 2025, for the indicators on energy consumption from fossil sources and energy consumption from fossil sources per unit of GDP are 32,119.35 TJ and 7.23 TJ/USD 1 million (using 2015</p>

ID#	Reporting requirement	Description of area of improvement with recommendation or encouragement
10.2	Specified in paragraph 68 of the MPGs	<p>currency values) respectively. It also explained that the 2025 reference value given for energy supply from renewable sources is for the conditional commitment, and a value has not been set for the unconditional commitment. Guyana is still working to identify suitable indicators for its unconditional commitment on renewable energy. Furthermore, the Party clarified during the review that the value of the indicator share of national territory covered by forest was also erroneously reported for 2022 and it should be 85.82 per cent instead of 82.98 per cent.</p> <p>The TERT recommends that the Party provide accurate values of indicators for the base year and reference points, and provide values for all its commitments, including conditional commitments, or explain why such values have not been set.</p>
10.3	Specified in paragraph 69 of the MPGs	<p>Guyana did not provide the most recent information for each selected indicator for each reporting year during the implementation period of its NDC. Specifically, the information provided for two indicators (energy consumption from fossil sources and energy consumption from fossil sources per unit of GDP) for the base year (2016) was not consistent with the definitions of these indicators provided in the BTR or the AD used for GHG inventory calculations, which were specified as the source of the data for the energy consumption component of these indicators.</p> <p>During the review, Guyana confirmed that the correct values for 2022 for the indicators on energy consumption from fossil sources and energy consumption from fossil sources per unit of GDP are 40,370.30 TJ and 2.83 TJ/USD 1 million (using 2015 currency values) respectively.</p> <p>The TERT recommends that the Party provide consistent values for each selected indicator for each reporting year.</p>
10.4	Specified in paragraph 75(d)(i)–(ii) of the MPGs	<p>Guyana did not compare the most recent information for each selected indicator with the information provided pursuant to paragraph 67 of the MPGs to track progress in implementing its NDC. For example, Guyana stated in its BTR annex on NDC tracking that it has substantially increased the share of renewable energy sources to meet the demands of its national grid and energy needs of hinterland towns and villages, but the indicator on energy consumption of renewable sources shows a downward trend. Moreover, other indicators were not used to evaluate progress towards the NDC target.</p> <p>During the review, Guyana confirmed its intention to use the selected indicators to assess the progress of its NDC for the next BTR, and to inform the next version of its NDC.</p> <p>The TERT recommends that the Party use the selected indicators and compare the most recent information for each selected indicator with the information provided pursuant to paragraph 67 of the MPGs to track progress in implementing its NDC.</p> <p>Guyana did not report in its BTR any sector-, category- or activity-specific assumptions, methodologies or approaches consistent with IPCC guidance. Specifically, it indicated that emissions and removals from HWP were estimated using recommended accounting approaches from the IPCC guidelines, and that natural disturbances were accounted for using the accounting approaches recommended in the IPCC guidelines. In both cases, the Party stated that details were to be provided in the agriculture, forestry and other land use section of the NIR. However, Guyana has not submitted the NIR and the corresponding chapters in the BTR do not include this information.</p> <p>During the review, Guyana provided clarifications regarding the estimation of emissions from natural disturbances and HWP (see ID#s 6.L.4 and 6.L.6 above).</p> <p>The TERT recommends that the Party report information, if available and applicable, on its approach for addressing emissions and subsequent removals from natural disturbances on managed lands, and on the approach used to account for emissions and removals from HWP. If the Party deems that this information is not available or applicable, the TERT recommends that the Party explain this in the BTR.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
10.5	Specified in paragraph 76(a) of the MPGs	<p>Guyana did not clearly describe in its BTR how each indicator is related to the Party’s NDC. For example, the indicator on energy consumption from fossil sources per unit of GDP, selected to track Guyana’s energy efficiency policies, shows a significant decrease from 7.23 TJ/USD million to 2.83 TJ/USD million from 2016 to 2022. The chapter of the BTR on national circumstances indicates that the GDP of Guyana has increased significantly in recent years, largely owing to the expansion of oil production from 2019 onward, which would also be expected to result in the decrease of the value of this indicator. Therefore, it is not clear how Guyana intends to assess the effect of the oil sector’s expansion on this indicator and differentiate it from the impact of energy efficiency activities.</p> <p>In addition, the indicator on percentage of staff dedicated to field monitoring sustainable practices in forest management was selected to track the unconditional commitment for continuation and improvement of sustainable forest management. Guyana assumes that the percentage of staff actively involved in monitoring activities is a reliable proxy for overall effectiveness of forest management practices, where an increase in the percentage of staff dedicated to field monitoring directly improves the effectiveness of sustainable forest management practices. However, the target value for 2025 for this indicator is the same as the values for 2016 and 2022 (50 per cent) and shows no increase. Therefore, it is not clear how this indicator is indicative of sustainable forest management if there is no target for increasing its value.</p> <p>During the review, Guyana acknowledged that the significant increase in GDP, which according to the BTR is mostly due to the expansion of the oil and gas sector from 2019 onward, could have an impact on the value of the indicator on energy consumption from fossil sources per unit of GDP. The Party clarified that, to ensure transparency and accurate tracking, it has also selected the indicator on energy consumption from fossil sources, and that these two indicators should be used in conjunction.</p> <p>With regard to the indicator on percentage of staff dedicated to field monitoring sustainable practices in forest management, Guyana clarified that its unconditional commitment is to maintain a high level of legality in the timber sector, rather than increasing or improving it. To achieve this, the Guyana Forestry Commission is committing 50 per cent of its staff to field monitoring from its 36 fixed and 18 mobile forest monitoring stations located across the country. These efforts will help maintain a low rate of illegal logging (less than 2 per cent of production). As such, maintaining a consistent target value of 50 per cent for the indicator for 2025 implies that Guyana is meeting the level of monitoring staff required to ensure the effectiveness of sustainable forest management practices, including by overseeing compliance of forest practices with national and international standards and agreements, including for legal timber extraction, sustainable practices and carbon storage potential.</p> <p>The TERT recommends that the Party clearly describe how each indicator is related to its NDC and how it will be used to track progress.</p>

Table 11  
**Areas of improvement of the reporting on mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving the nationally determined contribution under Article 4 of the Paris Agreement**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
11.1	Specified in paragraphs 80 and 84 of the MPGs	<p>The Party provided information on a large number of projects, including emission reduction estimates; however, it was not clear whether and how these projects support the implementation and achievement of its NDC and commitments measured by indicators. For reporting on PaMs, Parties are required to focus on PaMs that have the most significant impact on GHG emissions or removals and those that impact key categories in the GHG inventory. No actions, policies or measures, existing or planned, were included for the transport, waste, IPPU and agriculture sectors in the Party’s list of PaMs.</p>

ID#	Reporting requirement	Description of area of improvement with recommendation or encouragement
		<p>During the review, the Party explained that its PaMs focused on the current NDC areas.</p>
11.2	Specified in paragraphs 82 and 84 of the MPGs	<p>The TERT recommends that the Party report in its next BTR how its PaMs, actions and plans support the implementation and achievement of its NDC, and report on PaMs in the transport, waste, agriculture and IPPU sectors.</p> <p>Guyana provided very detailed information on its mitigation actions and projects, including the name, description, objectives, status, sectors and gases affected, start year of implementation and implementing entities. However, the information reported on the type of instrument (regulatory, economic, etc.) was not clear. In its BTR Guyana identified many measures as regulatory, but it is unclear why some of these are regulatory, since regulations or laws are not mentioned in the project description (e.g. Wakenaam Solar Farm and the small hydropower project).</p> <p>During the review, the Party explained that these projects are regulatory in nature as they feed into the Government's utility structure, which is a regulatory system managed and run by the Government.</p>
11.3	Specified in paragraphs 83–84 of the MPGs	<p>The TERT recommends that the Party, to the extent possible, provide more complete information on the type of instrument for each policy or measure, and verify what kinds of policy should be considered regulatory in its next BTR.</p> <p>Guyana did not report for all actions and PaMs information on costs, non-GHG mitigation benefits and how the mitigation actions interact with each other.</p> <p>During the review, Guyana explained that this information was not reported for all actions and PaMs owing to the need to prioritize mandatory reporting requirements.</p> <p>The TERT encourages Guyana to provide in its next BTR information for each action, policy and measure reported on the costs, non-GHG mitigation benefits and how the mitigation actions interact with each other, or, if appropriate, to explain why this information was not provided.</p>
11.4	Specified in paragraph 88 of the MPGs	<p>Guyana did not identify its actions and PaMs that influence GHG emissions from international transport.</p> <p>During the review, Guyana explained that, although it does not have any specific national policies or measures in place that directly target GHG emissions from international transport, it is collaborating with international bodies such as the International Civil Aviation Organization to implement standards for reducing emissions from international aviation.</p> <p>The TERT encourages the Party to include in its next BTR information on actions and PaMs that influence GHG emissions from international transport, such as the Party's collaboration with the International Civil Aviation Organization on implementing standards for reducing emissions from international aviation.</p>
11.5	Specified in paragraph 85 of the MPGs	<p>Guyana reported emission reduction estimates in the BTR for most of its PaMs without indicating the time frame; however, this was not the case in CTF table 5, where it requested flexibility for reporting on all of its PaMs.</p> <p>Guyana indicated that it will take steps to estimate GHG emission reductions (expected and achieved) for each policy or measure for its BTR2 through enhanced data-collection and verification procedures and an improved methodological framework for estimating the GHG emission reductions associated with PaMs.</p> <p>The TERT encourages the Party to provide, to the extent possible, estimates of emission reductions for all PaMs in the next BTR, or if this is not possible, to explain why this is not possible in the BTR.</p>
11.6	Specified in paragraph 89 of the MPGs	<p>Guyana did not provide information on how its actions and PaMs are modifying longer-term trends in GHG emissions and removals.</p> <p>During the review, Guyana explained that it did not report this information owing to the need to prioritize mandatory reporting requirements and time and resource constraints.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
11.7	Specified in paragraph 90 of the MPGs	<p>The TERT encourages the Party to include information in its next BTR, to the extent possible, on how its actions and PaMs are modifying longer-term trends in GHG emissions and removals.</p> <p>Guyana did not consistently provide information on the assessment of economic and social impacts for all response measures. Some information was provided for some individual projects, but not for all individual PaMs, and information on the total impact of all PaMs was not provided.</p> <p>During the review, Guyana explained that, in the light of its new quantitative progress indicators, it plans to improve how implemented projects are linked with the indicators for tracking progress towards its NDC targets, which will put the Party in a better position for assessing the economic and social impacts of its measures.</p> <p>The TERT encourages the Party to include information in its next BTR, to the extent possible, on the assessment of economic and social impacts of all response measures.</p>

Table 12

**Areas of improvement of the summary of greenhouse gas emissions and removals**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
		No areas of improvement identified.

Table 13

**Areas of improvement of the projections of greenhouse gas emissions and removals**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
13.1	Specified in paragraphs 94 and 102 of the MPGs	<p>Guyana did not report ‘with additional measures’ or ‘without measures’ projections of all GHG emissions and removals.</p> <p>During the review, Guyana explained that time constraints impacted the production of new scenarios.</p> <p>The TERT encourages the Party to report ‘with additional measures’ and ‘without measures’ projections.</p>
13.2	Specified in paragraphs 96(c) and 102 of the MPGs	<p>Guyana did not provide in its BTR the assumptions on PaMs included in the ‘with measures’ projections. The Party explained in the BTR that historical GHG estimates already account for the impacts of most PaMs; however, at least one of the projects with the biggest expected emission reductions (the gas to energy project) was not included in the projections. Many other projects are ongoing and were not completed by 2022, the most recent year of the GHG inventory. According to the MPGs, a ‘with measures’ scenario should encompass currently implemented and adopted PaMs.</p> <p>During the review, Guyana explained that, in the modelling approach followed, the PaMs implemented in more recent years significantly affect projected trends. However, Guyana acknowledged that the impact of certain policies that are in the early stages of development will be further developed and elaborated on in the next BTR. Guyana intends to enhance its current approach by using the Mitigation-Inventory Tool for Integrated Climate Action to estimate the impacts of all PaMs.</p> <p>The TERT encourages the Party to identify which PaMs were included in the projection scenarios. This could be done in CTF table 5 and in the list of PaMs in the BTR.</p>
13.3	Specified in paragraphs 97 and 102 of the MPGs	<p>Guyana did not report projections of key indicators used to determine progress towards achieving its NDC.</p> <p>During the review, Guyana explained that this was because, at the time of submission of the projections and CTF tables, it had not yet selected quantitative indicators for tracking progress towards achieving its NDC; however, during the review it presented proposed quantitative indicators that will help to determine projections of which key indicators need to be reported in order to determine progress towards achieving the NDC.</p>

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
13.4	Specified in paragraphs 98 and 102 of the MPGs	<p>The TERT recommends that the Party provide projections of key indicators used to determine progress towards achieving its NDC.</p> <p>Guyana did not report projections by gas.</p> <p>During the review, the Party explained that this was due to data constraints, and that it is using flexibility in the light of its capacities with respect to paragraphs 93–101 of the MPGs and reporting a less detailed coverage of its projections.</p> <p>In CTF table 7 projections by gas were reported as “IE”; however, since Guyana is using flexibility in the light of its capacities, it should report “FX” for projections by gas.</p> <p>Noting the flexibility applied by Guyana, the TERT encourages the Party to report projections by gas.</p>
13.5	Specified in paragraphs 99 and 102 of the MPGs	<p>Guyana did not report projections relative to actual GHG inventory data for the preceding years. For example, slightly different values were reported for total emissions for 2022 across submissions (–133,919.14 t CO<sub>2</sub> eq, including LULUCF), BTR chapter 2 on the 2022 GHG inventory (–133,919.95 t CO<sub>2</sub> eq) and the CRTs (–133,920.99 t CO<sub>2</sub> eq). Small discrepancies between the three sets of numbers reported in the BTR projections, BTR chapter 2 and the CRTs occur for multiple GHG inventory categories.</p> <p>During the review, Guyana explained that this may be due to small revisions made to the GHG inventory after the projections were completed and the BTR was submitted to the secretariat. The CTF tables and CRTs were submitted just before the review week using the reporting tool, and revisions were made as a result of this process.</p> <p>The TERT recommends that the Party present projections relative to actual inventory data for the preceding years, ensuring consistency with the data presented in the GHG inventory section of the BTR.</p>

Table 14

**Areas of improvement of other information relevant to tracking progress in implementing and achieving the nationally determined contribution under Article 4 of the Paris Agreement**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Description of area of improvement with recommendation or encouragement</i>
		No areas of improvements identified

## **II. Capacity-building needs<sup>3</sup> identified by the Party and by the technical expert review team in consultation with the Party during the technical expert review of its first biennial transparency report**

2. Table 15 presents capacity-building needs identified by the Party and by the TERT in consultation with the Party during the technical expert review of its BTR1.

Table 15

**Capacity-building needs identified in consultation with the Party**

<i>ID#</i>	<i>Reporting requirement</i>	<i>Area in which capacity-building is needed</i>
General reporting		
No capacity-building needs identified		
NIR – general		
1	Specified in paragraphs 19(b), 20 and 32 of the MPGs	Enhancing institutional arrangements and technical operational capacity regarding AD collection across the whole GHG inventory

<sup>3</sup> As referred to in paras. 7, 8 and 162(d) of the MPGs.

<i>ID#</i>	<i>Reporting requirement</i>	<i>Area in which capacity-building is needed</i>
NIR – energy, IPPU, agriculture, waste		
2	Specified in paragraphs 18 and 21 of the MPGs	Enhancing institutional arrangements and technical operational capacity with a focus on the IPPU sector, with the aim of improving the estimation of emissions of fluorinated gases in particular, and on the energy, agriculture and waste sectors to enable use of higher-tier methods for key categories
NIR – LULUCF		
3	Specified in paragraph 20 of the MPGs	Enhancing capacity for providing and applying accurate information on land representation for its GHG inventory based on remote-sensing data
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement		
4 <sup>a</sup>	Specified in paragraph 77(d)(i)–(ii) of the MPGs in conjunction with paragraph 23(a–b) of the annex to decision 2/CMA.3	Developing capacity to track ITMOs in various sectors, as applicable, and evaluate their impacts on NDC commitments
5 <sup>a</sup>	Specified in paragraph 80 of the MPGs	Enhancing capacity for linking project-based actions to NDCs and for using NDCs to inform future project actions
6	Specified in paragraph 85 of the MPGs	Enhancing capacity for estimating GHG emission reductions (expected and achieved) and create common project tracking indicators for each policy or measure through enhanced data-collection and verification procedures and an improved methodological framework for estimating the GHG emission reductions associated with PaMs
7 <sup>a</sup>	Specified in paragraph 97 of the MPGs	Developing capacity for collecting data relevant to key NDC indicators and developing projections of progress against these indicators with a view to assessing progress towards achieving the Party’s NDC
8	Specified in paragraph 98 of the MPGs	Developing capacity for developing GHG projections by gas, informed by historical data on specific GHGs, including for collecting relevant data

<sup>a</sup> Capacity-building need identified by the Party in its BTR1.

## Annex

### Documents and information used during the review

#### A. Reference documents

BTR1 of Guyana. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1, annex: information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4 of the Paris Agreement, version 3, August 2024. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1, annex: update on the information on financial, technology development and transfer and capacity-building support provided and mobilized, needed and received under Articles 9–11 of the Paris Agreement, version 2, September 2024. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1 CTF tables of Guyana. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1 CRTs of Guyana. Available at <https://unfccc.int/first-biennial-transparency-reports>.

“Guidance for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement”. Decision 5/CMA.3. FCCC/PA/CMA/2021/10/Add.2. Available at <https://unfccc.int/documents/460951>.

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

IPCC. 2019. *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*, E Buendia, K Tanabe, et.al. (eds.). Geneva: IPCC. Available at <https://www.ipcc-nggip.iges.or.jp/public/2019rf/>.

“Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement”. Annex to decision 18/CMA.1. FCCC/PA/CMA/2018/3/Add.2. Available at <https://unfccc.int/documents/193408>.

#### B. Additional information provided by the Party

Responses to questions during the review were received from Pradeepa Bholanath (Ministry of Natural Resources of Guyana), including additional material. The following references were provided by Guyana and may not conform to UNFCCC editorial style as some have been reproduced as received:

Brown, S., Magmood, A. R., Goslee, K. M., Pearson, T. R., Sukhdeo, H., Donoghue, D. N., & Watt, P. (2020). Accounting for Greenhouse Gas Emissions from Forest Edge Degradation: Gold Mining in Guyana as a Case Study. *Forests*, 11(12). doi: <https://doi.org/10.3390/f11121307>.

Global Change Biology: *Trade-offs between carbon stocks and timber recovery in tropical forests are mediated by logging intensity*, 2017.

GFC. (2020). *Development and Implementation of Parallel Reporting System: Guyana's Continuous Resource Monitoring System*.

GFC. (2022). Guyana ART Workbook MC - thru2022\_IAP\_UoD. 340. Government of Guyana.

Hagen, S., Goslee, K., Pearson, T., & Brown, S. (2017). *A Comprehensive Uncertainty Assessment of the Emission Factors in Guyana's Forest Carbon Monitoring System*.

LCDS. (2022). *Guyana's low Carbon development Strategy 2030*. National Strategy, Georgetown. Retrieved from <https://lcds.gov.gy/wp-content/uploads/2022/08/Guyanas-Low-Carbon-Development-Strategy-2030.pdf>.

Roopsind, A., Caughlin, T. T., van der Hout, P., Arets, E., & Putz, F. E. (2018, July). Trade-offs between carbon stocks and timber recovery in tropical forests are mediated by logging intensity. *Global Change Biology*, 24(7), 2862-2874. doi: <https://doi.org/10.1111/gcb.14155>.

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