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

Summary

This report presents the results of the technical expert review of the first biennial transparency report of Ghana, 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, and 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 8 to12 December 2025 in Bonn.

* In the symbol for this document, 2024 refers to the year in which the biennial transparency report was submitted, not to the year of publication.

Abbreviations and acronyms

A6.4ER	emission reduction under Article 6, paragraph 4, of the Paris Agreement
AD	activity data
BTR	biennial transparency report
CER	certified emission reduction
CH_4	methane
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CRT	common reporting table
CTF	common tabular format
EF	emission factor
ETF	enhanced transparency framework under the Paris Agreement
GDP	gross domestic product
GHG	greenhouse gas
HFC	hydrofluorocarbon
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_2O	nitrous oxide
NA	not applicable
NDC	nationally determined contribution
NE	not estimated
NID	national inventory document
NIR	national inventory report
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_6	sulfur hexafluoride
TERT	technical expert review team
WAM	‘with additional measures’
WM	‘with measures’
WOM	‘without measures’

I. Introduction and summary

A. Introduction

1. This report covers the technical expert review of the BTR1 of Ghana. The review was organized by the secretariat and conducted by the TERT in accordance with the MPGs,[1] particularly chapter VII thereof.

2. A draft version of this report was transmitted on 1 July 2026 to the Government of Ghana, which provided comments on 11 August 2026 that were taken into account, as appropriate, in this final version of the report.[2] The Party applied the flexibility available to those developing country Parties that need it in the light of their capacities in relation to providing comments within three months, instead of one month, of receipt of the draft version of this report.[3]

3. The review was conducted as a centralized review from 8 to 12 December 2025 in Bonn by the following team of nominated experts from the UNFCCC roster of experts: Ulrich Elsenberger (Germany), Toby Hedger (United States of America), Inga Rún Helgadóttir (Iceland), Nagmeldin Mahmoud (Sudan), Helen McCarthy (Australia), Admore Mureva (Zimbabwe), Jose Manuel Ramirez (Spain) and Katrin Seuss (Austria). Toby Hedger and Nagmeldin Mahmoud were the lead reviewers. The review was coordinated by Sohel Pasha and Simon Wear (secretariat).

4. Applying the flexibility provided to those developing country Parties that need it in the light of their capacities,[4] Ghana chose to undergo a centralized instead of an in-country review.

B. Scope

5. The TERT conducted a technical expert review of the information reported in the BTR1 of Ghana as per the scope of the review defined in paragraph 146 of the MPGs, consisting of:

(a) Review of the consistency of the information submitted by the Party under Article 13, paragraphs 7 and 9, of the Paris Agreement with the MPGs (see chap. II.A below);

(b) Consideration of the Party's implementation and achievement of its NDC under Article 4 of the Paris Agreement (see chap. II.B below);

(c) Identification of areas of improvement[5] for the Party related to implementation of Article 13 of the Paris Agreement (see chap. II.D below);

(d) Assistance in identifying capacity-building needs (see chap. II.E below).

C. Summary

6. Ghana submitted its BTR1 on 28 December 2024, before the deadline of 31 December 2024 mandated in decision 18/CMA.1. Ghana submitted its NID as a stand-alone document on 28 December 2024, before the deadline. Ghana also submitted its CRTs on 28 December 2024, before the deadline, and CTF tables on 28 December 2024, before the deadline.

7. The Party submitted information pursuant to Article 6 of the Paris Agreement, which is considered in chapter II.B below.

[1] Decision 18/CMA.1, annex.
[2] As per para. 162(e) of the MPGs.
[3] As per para. 162(f) of the MPGs.
[4] As per paras. 158–159 of the MPGs.
[5] As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs.

8. A list of the areas of improvement identified on the basis of the review of the consistency of the reported information with the MPGs can be found in the assessment tables.[6]

D. Information provided by the Party pursuant to paragraphs 143–145 of the modalities, procedures and guidelines

9. Ghana reported information on support needed and received for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building, including for the preparation of BTRs and NIRs. The Party reported on support needed for improving the application of the 2006 IPCC Guidelines for preparing the national inventory report, including the development of institutional arrangements for inventory management, QA/QC procedures and data archiving. Ghana also reported the need to strengthen the integration of sectoral data-collection and reporting systems into a coordinated national data system to support consistent data flows for BTR preparation, NDC tracking and policy analysis. In addition, Ghana identified needs for enhancing technical, institutional and human capacities for implementing the ETF, including emissions estimation, data management, tracking of indicators for NDC implementation, and reporting on mitigation actions, adaptation actions and support needed and received. Ghana reported receiving support under the Capacity-building Initiative for Transparency, which supported the establishment and strengthening of a national GHG inventory system, the development of domestic arrangements for a measurement, reporting and verification system and for reporting under the ETF, and the operationalization of data management tools and platforms. This support included targeted training, analytical tools and technical assistance for preparing GHG inventories and BTRs, improving data-collection and validation processes, and establishing or enhancing national registries and systems for tracking mitigation actions and progress in implementing and achieving its NDC. Table 1 summarizes the information that Ghana reported in CTF tables III.12–III.13 on support needed and received. The TERT noted that the above-mentioned information reported by the Party is not subject to review as per the scope of the review defined in paragraph 146 of the MPGs.

Table 1
Summary of support needed and received by Ghana for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building
(USD million)

Status of support	*Amount*
Support needed from 2025 to 2027	1.42
Support received from 2019 to 2021	1.10

Sources: Ghana's BTR1 and CTF tables III.12–III.13.

II. Technical expert review[7]

A. Review of the consistency of the submitted information with the modalities, procedures and guidelines[8]

1. National inventory report[9]

10. The TERT assessed the information reported in the BTR1 of Ghana and identified areas of improvement relating to consistency with the MPGs, which are described in tables 2–7 of the assessment tables referred to in paragraph 8 above and summarized in table 2.

[6] Contained in document FCCC/ETF/TERR.1/2024/GHA/Add.1, available at https://unfccc.int/first-biennial-transparency-reports.
[7] As per para. 187 of the MPGs.
[8] As per para. 146(a) of the MPGs.
[9] As per para. 150(a) of the MPGs.

Table 2
Information reported in Ghana's national inventory report and review of consistency with the modalities, procedures and guidelines

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
Submission type (para. 12 of the MPGs)	Has the NIR been submitted as a stand-alone document?	Yes	No areas of improvement relating to recommendations were identified
Time series (paras. 57–58 of the MPGs)	What years have been reported and is the time series in accordance with the MPGs?	1990–2022, in accordance with the MPGs	No areas of improvement relating to recommendations were identified
Metrics (para. 37 of the MPGs)	Has the Party used the 100-year global warming potential values from the Fifth Assessment Report of the IPCC?	Yes	No areas of improvement relating to recommendations were identified
	Has the Party used other metrics?	No	No areas of improvement relating to recommendations were identified
Gases (paras. 48–49 of the MPGs)	Which gases have been reported?	CO_2, CH_4, N_2O, HFCs, PFCs, SF_6	No areas of improvement relating to recommendations were identified
Indirect emissions (para. 52 of the MPGs)	Has the Party reported indirect CO_2 emissions and national totals with and without indirect CO_2?	No	No areas of improvement relating to recommendations were identified
	Has the Party reported indirect N_2O emissions from sources other than those in the agriculture and LULUCF sectors as a memo item?	No	No areas of improvement relating to recommendations were identified
National circumstances and institutional arrangements (paras. 18–19 of the MPGs)	Has the Party reported information on the functions related to inventory planning, preparation and management?	Yes	2.G.1
Methodologies, parameters and data (paras. 20–24 of the MPGs)	Has the Party used the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*?	Yes	4.I.1, 6.L.2, 6.L.5, 6.L.6, 6.L.7, 6.L.11, 6.L.12, 6.L.13
	Has the Party used other IPCC methodological guidance?	Yes, the *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*	No areas of improvement relating to recommendations were identified

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
Key category analysis (paras. 25, 41 and 42 of the MPGs)	Has the Party reported a key category analysis?	Partly, a key category analysis was performed using approaches 1 and 2 and a 95 per cent threshold for level and trend assessment for the latest reporting year (2022) and with and without LULUCF	2.G.2, 6.L.14
Time-series consistency and recalculations (paras. 26–28, 43 and 57 of the MPGs)	Has the Party reported a consistent time series?	Partly	3.E.5
	Has the Party reported recalculations and provided justification and explanatory information for them?	NA	No areas of improvement relating to recommendations were identified
Uncertainty assessment (paras. 29 and 44 of the MPGs)	Has the Party reported the results of the uncertainty analysis and the methods used, underlying assumptions and trends?	Yes, including level and trend uncertainty, reported using approach 1 for 2019, which is not the starting inventory year, and the latest reporting year (2022)	2.G.3, 3.E.1, 5.A.12, 6.L.3
QA/QC plan and procedures (paras. 34–36 and 46 of the MPGs)	Has the Party elaborated information on an inventory QA/QC plan, including information on the inventory agency responsible for implementing QA/QC, and current and future QA/QC procedures?	Partly, including information on the inventory agency responsible for implementing QA/QC, an inventory QA/QC plan, general QC procedures and category-specific QC for key categories and for individual categories for which significant methodological changes and/or data revisions have occurred	2.G.5, 5.A.10, 7.W.1
Assessment of completeness (paras. 30–33, 45, 47 and 50 of the MPGs)	Have any areas of improvement for lack of completeness been identified for the following sectors?	Yes	
	General	Yes	2.G.4
	Energy	Yes	3.E.8, 3.E.9, 3.E.10, 3.E.11
	IPPU	Yes	4.I.2, 4.I.5, 4.I.7, 4.I.9
	Agriculture	Yes	5.A.2, 5.A.4, 5.A.6, 5.A.8, 5.A.9, 5.A.18,
	LULUCF	Yes	6.L.4, 6.L.9, 6.L.10
	Waste	Yes	7.W.2

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
Threshold for reporting significant categories (para. 32 of the MPGs)	Are the estimated emissions for all categories and in total for all gases and categories reported insignificant below the relevant thresholds?	No	No areas of improvement relating to recommendations were identified
	For categories reported as "NE" owing to insignificance, has information been reported showing that the likely level of emissions is below the threshold of significance?	NA	NA
Methodologies, EFs, parameters, and AD (paras. 39, 40 and 53–56 of the MPGs)	Has information been transparently reported on categories, gases, methodologies (including the rationale for selecting them), EFs and AD at a disaggregated level for the following sectors?		
	Energy	Yes	No areas of improvement relating to recommendations were identified
	Has information been reported on international aviation and marine bunker fuel emissions as two separate entries, and such emissions distinctly reported from national totals?	Yes	NA
	Has information been reported indicating how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or IPPU sector?	Yes	NA
	IPPU	Partly	4.I.3, 4.I.4, 4.I.6
	Agriculture	No	5.A.5, 5.A.7, 5.A.11, 5.A.13, 5.A.14, 5.A.15, 5.A.16, 5.A.17
	LULUCF	Partly	6.L.8, 6.L.16
	Did the Party provide information on the approach to addressing emissions and subsequent removals from natural	Partly	6.L.17

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
	disturbances on managed land in a manner consistent with IPCC guidance, and indicate whether the estimates are included in national totals?		
	Did the Party provide supplementary information on the approach to reporting emissions and removals from harvested wood products in accordance with IPCC guidance other than the production approach, and provide supplementary information on emissions and removals from harvested wood products estimated using the production approach?	Partly	6.L.15
	Waste	No	7.W.3, 7.W.4, 7.W.5, 7.W.6, 7.W.7, 7.W.8, 7.W.9, 7.W.12, 7.W.13

[a] See document FCCC/ETF/TERR.1/2024/GHA/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

2. Information necessary to track progress in implementing and achieving the nationally determined contribution[10]

11. The TERT assessed the information reported in the BTR1 of Ghana and identified areas of improvement relating to consistency with the MPGs, which are described in tables 8–11 and 13 of the assessment tables referred to in paragraph 8 above and summarized in table 3.

Table 3
Information reported in Ghana's submission

Topic	*ID#(s) for the area(s) of improvement identified*[a]
National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	No areas of improvement relating to recommendations were identified
Description of the NDC under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	9.1
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	10.1–10.7
Mitigation PaMs, actions and plans related to implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	11.1, 11.3, 11.4
Summary of GHG emissions and removals (para. 91 of the MPGs)	No areas of improvement relating to recommendations were identified
Projections of GHG emissions and removals (paras. 92–102 of the MPGs)	13.3–13.6

[a] See document FCCC/ETF/TERR.1/2024/GHA/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

3. Financial, technology development and transfer, and capacity-building support provided[11]

12. Ghana does not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement. Accordingly, the Party did not provide information on financial, technology development and transfer, or capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement in its BTR1.[12]

B. Consideration of the Party's implementation and achievement of its nationally determined contribution[13]

13. In considering Ghana's progress in implementing and achieving its NDC, the TERT noted that the NDC[14] is a two-tier (unconditional and conditional), fixed-level target to reduce emissions by 64,000 kt CO_2 eq by 2030 compared with the 'business as usual' level (see table 4) by implementing a set of 34 PaMs (of which 9 are unconditional and 25 are conditional). Ghana's NDC covers the energy, IPPU, LULUCF and waste sectors (with agriculture sector emissions being included in the national GHG inventory but excluded from the mitigation target) and includes the gases CO_2, CH_4, N_2O and HFCs. All categories and pools under the LULUCF sector are covered. The implementation period of the NDC is 2021–2030.

[10] As per para. 150(b) of the MPGs.
[11] As per para. 150(c) of the MPGs.
[12] As per para. 118 of the MPGs.
[13] As per para. 146(b) of the MPGs.
[14] The consideration of the Party's implementation and achievement of its NDC is in the context of the NDC submitted by Ghana on 4 November 2021.

14. The indicator that Ghana selected to track progress in implementing and achieving its NDC is described in table 4.

Table 4
Description of the indicator(s) selected by Ghana to track progress in implementing and achieving its nationally determined contribution

NDC target	*Indicator*	*Description*
64,000 kt CO_2 eq net GHG emission reductions or removals by 2030 (unconditional target, 24,600 kt CO_2 eq; conditional target, 39,400 kt CO_2 eq)	Net GHG emission reduction compared with the 'business as usual' level	Aggregated emission reductions generated by PaMs supporting the NDC target, adjusted with transferable ITMOs: for the unconditional component of the target, the emission reductions from the 9 unconditional PaMs are summed, and for the conditional component of the target, the emission reductions from the 25 conditional PaMs are summed

Sources: Ghana's BTR1 and CTF tables 1–3.

15. The TERT noted that the contribution of LULUCF to achieving the NDC is included in the Party's target-year level and that Ghana plans to use ITMOs from cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement towards the achievement of its NDC. Ghana is participating in three bilateral programmes (with Singapore, Sweden and Switzerland) and has established a national carbon registry to track the ITMOs generated and used towards its NDC.

16. Table 5 summarizes information on progress in implementing the NDC based on the indicator net GHG emission reduction compared with the 'business as usual' level taking into account the type of Ghana's NDC target, including quantitative values for the base year (2019), implementation period (2021–2030), including the most recent year available, and target year, and information on the contribution of LULUCF and use of ITMOs towards the implementation and achievement of the NDC, as applicable.

Table 5
Summary of information on Ghana's progress in implementing and achieving its nationally determined contribution based on net GHG emission reduction compared with the 'business as usual' level
(kt CO_2 eq)

	Net GHG emission reduction compared with the 'business as usual' level	*Contribution of LULUCF, as applicable*	*ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*	*Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*[a]
2021	13 180	NA	NA	13 180
2022	13 190	NA	NA	13 190
Fixed-level target[b]				–24 600

Sources: Ghana's BTR1 and CTF table 4, and information provided by the Party during the review.
[a] The TERT noted that an expert review of regular information under Article 6 has not taken place. Therefore, ITMOs reported as first transferred were not taken into account when considering progress towards achievement of the NDC.
[b] Target level corresponds to the unconditional component of the NDC target.

17. According to the most recent information on net GHG emission reduction compared with the 'business as usual' level provided in CTF table 4, in 2022 Ghana's net GHG emission reduction was 28,700 kt CO_2 eq (13,190 kt CO_2 eq achieved from unconditional PaMs and 15,500 kt CO_2 eq achieved from conditional PaMs), which represents 45 per cent of the NDC target of a reduction in emissions of 64,000 kt CO_2 eq compared with the 'business as usual' level.

18. Ghana reported information on the actions and PaMs that support the implementation and achievement of its NDC. Table 6 provides a summary of the reported information on the key PaMs of Ghana.

Table 6
Summary of information on key policies and measures reported by Ghana

Sector	*Key PaMs*[a]	*Estimate of expected GHG emission reductions in 2030 (kt CO_2 eq)*	*Estimate of achieved GHG emission reductions in 2022 (kt CO_2 eq)*
Policy framework and cross-sectoral measures	Participating in Article 6 of Paris Agreement	24 000.00	12.00
Energy	Recovering natural gas from oil fields that would otherwise be flared or vented[b]	12.44	610.00
Energy efficiency	Supporting the adoption of energy efficiency measures in homes and commerce[b]	1 841.50	3 790.00
	Promoting hi-tech energy-efficient clean fuel cooking solutions (improved biomass stoves)[b]	4 015.00	6 084.00
Energy supply and renewables	Implementing low-carbon electricity supply[b]	1 200.00	3 380.00
	Increasing the scaling up of renewable energy technology penetration[b]	1 513.70	170.00
Transport	Promoting public and private electric vehicles and charging infrastructure	33.70	11.00
	Implementing vehicle inspection, fleet renewal and vehicle emission standards[b]	22.00	20.00
IPPU	Implementing energy-efficient cooling in air conditioning and refrigeration[b]	200.00	370.00
LULUCF	Implementing national forest plantation development[b]	1 200.00	2 330.00
	Scaling up results-based REDD+[b]	10 385.00	970.00
Waste	Expanding waste composting to all regions[b]	1 145.00	3 700.00

Sources: Ghana's BTR1 and CTF table 5, and information provided by the Party during the review.
[a] Names of PaMs reproduced as reported in Ghana's BTR.
[b] Included in the WM scenario projections.

19. The TERT noted that PaMs, actions and plans have contributed to GHG emission reductions in the energy, transport, LULUCF and waste sectors. Other than a slight dip in emissions in 2020 due to the coronavirus disease 2019 pandemic, GHG emissions steadily increased in 2000–2022. While the energy and agriculture sectors drove this upward trend, other sectors and sources, such as buildings and land use, showed fluctuations or declines in emissions. Despite the rise in absolute emissions, Ghana has achieved a 75.1 per cent decrease in intensity of emissions per unit of GDP since 1990, indicating a gradual decoupling of emissions from economic growth.

20. Ghana reported 34 PaMs it considers to be key to achieving its NDC and for which it expects GHG emission reductions by 2030. The TERT noted that in the energy sector, the adoption of energy-efficient appliances in homes and businesses, the promotion of clean cooking solutions and the implementation of renewable energy technologies and low-carbon electricity supply have contributed to slowing the growth of emissions. In the LULUCF sector, the implementation of REDD+ and forest plantation development strategies has led to measurable reductions in emissions, reinforcing the importance of land-based mitigation. In the waste sector, the expansion of composting and biogas production has begun to mitigate

CH_4 emissions, although further scaling up of such initiatives is needed to offset projected increases in the sector. These trends highlight the relevance of sector-specific PaMs in shaping Ghana's emissions trajectory and underscore the need for their continued and enhanced implementation to meet the NDC target.

21. Ghana reported projections for 2025–2040 under the WM scenario.[15] The WM scenario reported by the Party includes PaMs implemented and adopted until 2021. In addition to the WM scenario, Ghana reported the WAM and WOM scenarios. The projected emission levels are presented in table 7. The TERT noted that information on GHG emission projections was not used in considering Ghana's progress in implementing its NDC.

Table 7
Summary of greenhouse gas emission projections for Ghana

	GHG emissions (kt CO_2 eq/year)	*Change in relation to 2020 level (%)*	*Change in relation to 2022 level (%)*
Inventory data 2020	53 066.85		
Inventory data 2022	54 759.45	3.2	
WOM projections for 2030	99 447.25	87.4	81.6
WM projections for 2030	67 576.41	27.3	23.4
WAM projections for 2030	55 935.02	5.4	2.1
WOM projections for 2040	289 295.28	445.2	428.3
WM projections for 2040	150 471.96	183.6	174.8
WAM projections for 2040	91 346.31	72.1	66.8

Sources: Ghana's BTR1 and CTF tables 6–9.
Note: The projections are for GHG emissions with LULUCF and excluding indirect CO_2 emissions.

22. The TERT notes that a reduction of 35,300 kt CO_2 eq is needed to reach the target level compared with the level in the most recent reported year (2022). The TERT also notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC, as data are available only for a limited number of years in the implementation period (2021–2030). The TERT further notes that regular monitoring of emissions and the results of mitigation actions allows adjustments to be made as needed towards achieving the reduction of 64,000 kt CO_2 eq by 2030.

C. Consideration of the Party's support provided[16]

23. Ghana does not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and did not report information in its BTR1 on financial, technology transfer and development, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement (see para. 18 above).

D. Identification of areas of improvement[17]

24. During the technical expert review, the TERT identified areas of improvement in relation to Ghana's implementation of Article 13 of the Paris Agreement, which are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 8 above.

[15] Note that, as per para. 93 of the MPGs, projections shall not be used to assess progress towards the implementation and achievement of an NDC under Article 4 of the Paris Agreement unless the Party has identified a reported projection as its baseline.
[16] As per para. 146(c) of the MPGs.
[17] As per para. 146(d) of the MPGs.

E. Assistance in identifying capacity-building needs[18]

25. Ghana, in consultation with the TERT, has not identified any needs for capacity-building to facilitate reporting in its BTR relating to the flexibilities applied by it as per the MPGs.

26. Furthermore, in order to facilitate continuous improvement in reporting, the following capacity-building needs were identified during the review:

(a) Strengthening institutional arrangements for the national GHG inventory related to reporting such that all methods, AD, EFs and assumptions applied in estimating emissions for all sources are transparently reported in the NIR;

(b) Enhancing institutional arrangements for the national GHG inventory related to QA/QC processes for the BTR and NIR during their preparation and approval for submission, including by strengthening the technical and institutional capacity of all entities involved, in order to ensure consistency of information across the BTR submission (including the NIR, CRTs and CTF tables) and improve the quality of reporting over time;

(c) Applying tier 2 and 3 estimation methodologies in preparing the GHG inventory for the LULUCF sector and documenting their application as part of the reporting process;

(d) Improving the availability and collection of AD, and applying appropriate IPCC methodologies and tools for estimating CH_4 and N_2O emissions and removals from natural disturbances (including biomass burning), as well as emissions and removals from harvested wood products, and reporting these under the LULUCF sector;

(e) Improving the completeness of reporting on AD, EFs and assumptions applied in estimating emissions for all sources of waste in the NIR and transparently documenting the calculation of emission estimates for solid waste disposal, biological treatment of solid waste, incineration and open burning of waste and wastewater treatment and discharge to ensure the calculations are replicable;

27. Ghana also identified the capacity-building support needs in its BTR1 (section 2.6.2).

III. Conclusions and recommendations

28. The TERT conducted a technical expert review of the information reported in the BTR1, NID, CRTs and CTF tables of Ghana in accordance with the MPGs.

29. The areas of improvement identified by the TERT on the basis of the review of the consistency of the information reported by Ghana with the MPGs are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 8 above.

30. The TERT notes that a reduction of 35,300 kt CO_2 eq is needed to reach the target level compared with the level in the most recent reported year (2022). The TERT also notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC, as data are available only for a limited number of years in the implementation period (2021–2030).

31. The TERT notes that PaMs, actions and plans have begun to influence emissions trajectories in specific subsectors. Measures such as clean cooking initiatives, renewable energy deployment, energy efficiency programmes and REDD+ implementation have helped to moderate emissions growth, particularly in the energy, transport, LULUCF and waste sectors. While overall emissions continue to be driven by structural economic and demographic factors, these interventions indicate emerging mitigation effects at the sectoral level.

32. Ghana does not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and, in accordance with the MPGs, did not report information on financial, technology

[18] As per para. 146(e) of the MPGs.

development and transfer, or capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement in its BTR1.

33. Regarding the implementation of Article 13 of the Paris Agreement and transparency-related activities, Ghana required support for strengthening and sustaining its technical, institutional and human capacities to meet commitments under the ETF, including further improvements to national GHG inventory systems, data management arrangements and the integration of sector-specific data-collection systems to ensure consistent reporting and NDC tracking. Reported needs also include enhancing institutional arrangements, QA/QC procedures and data archiving to improve the application of the 2006 IPCC Guidelines. The Party indicated that the support required for 2025–2027 amounts to USD 1.42 million, while support received for 2019–2021 totalled USD 1.10 million, indicating a gap in resources necessary to fully implement transparency-related activities and track progress in implementing and achieving its NDC. In consultation with Ghana, the TERT did not identify reporting-related needs for capacity-building support relating to the flexibilities applied by the Party as per the MPGs that could facilitate the Party's preparation of subsequent BTRs.

Annex

Documents and information used during the review

A. Reference documents

BTR1 of Ghana. Available at https://unfccc.int/first-biennial-transparency-reports.

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

CRTs of Ghana. Available at https://unfccc.int/first-biennial-transparency-reports.

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B. Additional information provided by the Party

Responses to questions during the review were received from Daniel Tutu Benefoh (Ministry of Environment, Science, Technology), including additional material. The following references were provided by Ghana and may not conform to UNFCCC editorial style as some have been reproduced as received:

Don, A., Schumacher, J., & Freibauer, A. (2011). *Impact of tropical land-use change on soil organic carbon stocks–a meta-analysis.* Global Change Biology, 17(4), 1658-1670.

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