



Training on the preparation of national GHG inventories under the ETF of the Paris Agreement

23-27 September 2024

In-country support training for Tanzania

Background

The MPGs, formulated to implement transparency in reporting under the Paris Agreement, defined specific new requirements for reporting the results of national GHG inventories. As such, information on national GHG inventory results should be included in a specific chapter of the BTR (Chapter I) and supporting information should be included in the annexes. In addition, all Parties must provide a national inventory report (NIR), which consists of a national inventory document (NID) and the common reporting tables (CRT), to the UNFCCC as part of each country's BTR submission process.

Although many countries are aware of Article 13 of the Paris Agreement, there is still limited understanding of the reporting requirements and MPGs. Tanzania has not received specific training on the Enhanced Transparency Framework (ETF) and MPGs of the Paris Agreement. The country has already started preparing for its BTR. However, the task of reporting on the associated processes that lead to NDC tracking to comply with the transparency conditions established in Article 13 might pose a challenge if the country does not receive the required capacity.

The objective of the **CBIT-GSP** is to provide streamlined support and capacity-building at the national, regional, and global levels to assist developing countries in responding to the reporting provisions under the UNFCCC and the Paris Agreement's Enhanced Transparency Framework and ultimately increase ambition for climate action. The CBIT-GSP plans to achieve this through multiple support modalities, including establishing and working with 10 Regional Networks across the globe to foster south-south collaboration, knowledge-sharing, and learning among countries. standards

About Tanzania

Tanzania ratified the UNFCCC Convention in 1996. The country has undertaken a wide range of activities as part of efforts to ensure an effective implementation of the Convention. Since ratifying the Convention in 1996, Tanzania has prepared and submitted the national reports listed below to the UNFCCC:

- (i) Initial National Communication (INC), March (2003)
- (ii) Second National Communication (SNC), September (2014)
- (iii) Intended Nationally Determined Contribution (INDC), September 2015
- (iv) Nationally Determined Contribution (NDC), July 2021

Tanzania's climate change efforts are led by the Vice President's Office (VPO), Division of Environment (DoE), which has oversight of the National Committee on Climate Change (NCCC). DoE is the UNFCCC National Climate Change Focal Point (NCCFP).

Tanzania has been trying to fulfill its reporting obligations to the UNFCCC, but there have been some challenges with both institutional and technical capacity in the development of GHG inventories.

Tanzania's priorities were communicated in its initial INDC and more recently in the revised NDC (July 2021) in line with MPGs reporting requirements including integration of programmes into sectoral plans and policies. Tanzania will reduce greenhouse gas emissions economy-wide between 30 - 35% relative to the Business-As-Usual (BAU) scenario by 2030 for identified four priority IPCC sectors (Energy, AFOLU, IPPU and Waste), whereby about 138 - 153 million tons of Carbon dioxide equivalent (MtCO₂e)-gross emissions is expected to be reduced, depending on the baseline efficiency improvements, consistent with its sustainable development agenda. The NDC is in line with the Tanzania Development Vision (2025) and Zanzibar Development Vision (2050), and the Third Five Year Development Plan (FYDP III). The NDC is also anchored in the National Climate Change Response Strategy (2021) and the Zanzibar Climate Change Strategy (2014).

Both the NC1 and NC2 identified gaps and barriers due to lack of sub-national and national capacities for the GHG inventory system. These included:

- Limited technical and human capacity and lack of the appropriate systems and tools to estimate GHG emissions according to the IPCC TACCC principles at subnational level.
- There is a lack of sufficiently trained personnel with enough technical capacities to compile sub-national/local government inventories and this is attributed to the lack of bottom-up information for inventory compiling and for the activity data QA/QC process.
- Weak institutional arrangements for GHG compilation, local government /municipal statistics systems are dysfunctional and inconsistent.
- Lack of this information at local government level information means that bottom-up source for activity data cannot be used for crosscheck purposes when performing QA/QC analysis or inventory improvement
- Lack of capacity to generate activity data for specific sector categories e.g., no disaggregated activity data by waste type or share of the different types of waste at disposal sites or capacity to develop a consistent time series for area information for land use and land use change in the LULUCF sector or generate satellite data.

Tanzania's reporting challenges have hindered timely reporting on the National Communications (NCs) and as of to date did not submit a Biennial Update Report (BUR) in the past years. This year (2024), Tanzania is set to finalise the process of reporting by submitting both the third NC and the first Biennial Transparency Report (BTR) by December 2024. Considering the limited time frames, Tanzania is required to fast-track the process by building the capacity of the technical staff to support reporting at different levels, including the preparation of national GHG inventories under the ETF of the Paris Agreement.

To this end, Tanzania requested the **CBIT-GSP** to provide support and capacity-building of Tanzania's technical staff in responding to the reporting provisions under the UNFCCC and the Paris Agreement's Enhanced Transparency Framework and ultimately increase ambition for climate action. Specifically, Tanzania's technical staff will be trained on the key elements of developing the national GHG inventories under the ETF of the Paris Agreement.

Objective

The purpose of the GHG Inventory Training, following the IPCC 2006 Guidelines for the Waste and Agriculture, Forestry and Other Land Use (AFOLU) Sectors, is to report greenhouse gas (GHG) inventories. This hands-on training, incorporating the IPCC software, is designed to equip the participants with the necessary skills to improve their contributions to the national reporting under the Enhanced Transparency Framework (ETF) of the Paris Agreement. The training aims to ensure that Tanzania's GHG inventories are accurate, comprehensive, and conform to UNFCCC modalities procedures and guidelines for reporting under the ETF, thus supporting informed policymaking and contributing to global efforts in combating climate change. The specific objectives are;

- To strengthen the capacity of Tanzania’s technical experts in preparing and reporting GHG inventories under the ETF.
- To deepen the technical experts’ understanding of the 2006 IPCC Guidelines for GHG inventories, focusing on methodologies, data collection, and reporting requirements for the Waste and AFOLU sectors.
- To provide participants with practical skills in using the IPCC software for GHG inventory compilation and analysis. This includes training on data input, manipulation, and interpretation of outputs, enabling participants to accurately estimate GHG emissions and removals.

Audience

This activity is intended for technical officers who work as coordinators of Tanzania's national GHG inventory and sectorial(s) inventory data providers. This includes government staff at the national and sectoral levels and staff from other institutions that are part of Tanzania’s institutional arrangements for reporting inventories under the UNFCCC and the Paris Agreement.

The Approach

The training will be conducted using a two-phase approach. The first phase will consist of two introductory webinars that will mainly set the training stage and cover the foundational, procedural, and governance processes of the national greenhouse gas inventories. The first webinar will focus on the foundational elements and rationale of GHG inventories and the new requirements for reporting national GHG inventories under the Paris Agreement (MPGs) and associated flexibility provisions, whilst the second webinar will take participants through the governance and procedural processes necessary for sustainable GHG inventory process under the ETF.

The second phase will be an in-country hands-on training in Tanzania on the 2006 IPCC guidelines for national greenhouse gas inventories for AFOLU and Waste including the IPCC inventory software. It is envisaged that through this training, participants will acquire the necessary knowledge and insights for reporting of the national inventory under the ETF.

Dates

- The first online training is on 12 September 2024
- The second online training 19 September 2024
- The in-country 23-27 September 2024.

Stage I: Introductory webinars

Proposed technical contents to be covered in the introductory webinars (2hrs per webinar)

National inventory systems in practice
What are UNFCCC Inventories, benefits, use
IPCC Guidelines
IPCC software
Data needed
General Examples
Introduction to the new requirements for reporting national GHG inventories under the Paris Agreement (MPGs) and associated flexibility provisions:
Institutional arrangement for inventories: national inventory systems (NIS) following the MPGs and sustainable systems for data collection
inventory workplan and management of the inventory cycle.
Management of QA/QC and documentation material

Data management system for archiving the inventory data. (International examples of data management systems.)

Design of the inventory improvement plan for facilitating improved reporting and transparency over time

Innovative experiences **from country inventory teams** (including local training activities and inventory awareness and dissemination examples)

Proposed detailed agenda for two webinars:

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Meeting ID: 352 292 736 63

Passcode: qnLZWu

WEBINAR 1: 12 th September 2024		
TIME	ACTIVITY	FACILITATOR
09:00 - 09:05	Welcome remarks	Tanzania Representative CBIT-GSP
09:05 - 09:15	Mentimeter	Moderator
09:15 – 09:40	The GHG Inventory process <ul style="list-style-type: none"> - What are UNFCCC Inventories, benefits, use? - IPCC Guidelines - IPCC software - Data needed. - General Examples 	UNEP-CCC
09:40 -09:45	Q&A	All
09:45 - 10:15	Introduction to the new requirements for reporting national GHG inventories under the Paris Agreement (MPGs) and associated flexibility provisions:	UNEP-CCC
10:15 - 10:20	Q&A	All
10:20 – 10:30	Mentimeter and closing	

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Meeting ID: 368 250 159 581

Passcode: T6sjjj

Webinar 2: 19 September 2024		
TIME	ACTIVITY	FACILITATOR
09:00 - 09:05	Welcome remarks	Tanzania Representative CBIT-GSP
09:05 – 09:10	Mentimeter	Moderator
09:10 – 09:30	Institutional arrangements for GHG Inventories in Tanzania	Tanzania Representative
09:30 – 09:35	Q&A	All
09:35 – 10:10	Institutional arrangement for inventories: national inventory systems (NIS) following the MPGs and sustainable systems for data collection	UNEP-CCC
10:10 – 10:15	Q&A	All
10:15 – 11:15	GHG Inventory Management Process <ul style="list-style-type: none"> - inventory workplan and management of the inventory cycle. - Management of QA/QC and documentation material - Data management system for archiving the inventory data. (International examples of data management systems.) - Design of the inventory improvement plan for facilitating improved reporting and transparency over time 	UNEP-CCC
11:15 – 11:20	Q&A	All
11:20 – 11:30	Mentimeter and closing	CBIT-GSP

Stage II: In-person workshop

Proposed technical contents for an agenda for the in-person workshop:

GHG Inventory Process: IPCC 2006 Guidelines and IPCC Software
Cross Cutting Issues
<ul style="list-style-type: none"> • Methodological approaches. • Data needs and data collection issues • Data gap filling techniques • Uncertainty analysis • Key Category analysis
Overview of the AFOLU sector (Agriculture, Forestry and Other Land Use)
Overview of the Waste sector
IPCC Software

Detailed agenda for the five days hands on training 23 Sep- 27 Sep 2024.

Day 1: 23 Sep- Cross Cutting Issues: Good Practice Elements		
08:30 - 09:00	Registration	
09:00 – 09:30	Opening Session <ul style="list-style-type: none"> - Welcome remarks Tanzania. - Welcome remarks CBIT-GSP - Introductions of participants - Workshop objectives 	Tanzania Representative CBIT-GSP Representative
0930-10:00	Country Experience <ul style="list-style-type: none"> • GHG Inventory process in Tanzania • Challenges and lessons learned 	Tanzania representative
10:30-10:55	Guidance on good practice elements <ul style="list-style-type: none"> - Approaches to data collection 	UNEP-CCC
10:55-11:50	<ul style="list-style-type: none"> - Uncertainty analysis- plus excel practice exercise 	UNEP-CCC - Consultant
11:50-12:00	Health Break	
12:00-12:25	Guidance on good practice elements <ul style="list-style-type: none"> - Methodological choice & key category analysis 	UNEP-CCC - Consultant
12:25-13:00	Guidance on good practice elements <ul style="list-style-type: none"> - Time series consistency - Practice of gap filling exercise 	UNEP-CCC - Consultant
13:00-	Lunch	
14:00-14:30	Overview of reporting requirements for the GHG inventory and MPGs including application of flexibility requirements	UNEP-CCC - Consultant
14:30-16:30	2006 IPCC Inventory Software <ul style="list-style-type: none"> - Overview of the IPCC Software - Installing and navigating the IPCC software. - Basic functionalities and data management within the software. - IPCC Presentation on Interoperability 	UNEP-CCC - Consultant

	<ul style="list-style-type: none"> - Understanding Common Reporting Tables (CRT) Software administration and control levels	
16:30-17:00	Closing session: Recap of the workshop, open discussion for questions	UNEP-CCC - Consultant
DAY 2: 24 Sep - WASTE SECTOR GHG INVENTORY		
09:00-09:30	Understanding the significance of waste sector GHG inventories	UNEP-CCC - Consultant
09:30-10:00	Waste characterization in Tanzania and waste sector challenges	Tanzanian Representative
10:00-10:45	Overview of waste sector categories – Methodologies and data required. <ul style="list-style-type: none"> - Solid waste disposal, - Wastewater treatment and discharge, 	UNEP-CCC - Consultant
10:45-10:55	Health Break	
10:55-11:30	Overview of waste Sector categories – Methodologies and data required. <ul style="list-style-type: none"> - Waste incineration, - open burning of waste 	UNEP-CCC - Consultant
11:30-13:00	Strategies for data collection and management, including overcoming common challenges in data availability and quality. <ul style="list-style-type: none"> - Collecting waste sector data and units' conversion (see excel file) - Data collection templates 	UNEP-CCC - Consultant
13:00-14:00	Lunch	
14:00-16:30	Exercises in using the IPCC Inventory Software <ul style="list-style-type: none"> • IPCC Inventory software- Waste sector demonstration • Simulation exercise on inventory compilation • Reporting tables Hands-on session focused on entering data for selected examples e.g., solid waste disposal, wastewater treatment and discharge.	UNEP-CCC - Consultant
16:30-17:00	Closing session: Recap of the workshop, open discussion for questions	UNEP-CCC - Consultant
DAY 3 25 Sep: AGRICULTURE GHG INVENTORY		
09:00 – 09:30	The role of the agriculture sector in GHG inventories	UNEP-CCC - Consultant
09:30-10:30	Agriculture inventory and challenges in Tanzania	Country Representative
10:30-11:15	Overview of categories within the agriculture sector: Methodologies and Data requirements <ul style="list-style-type: none"> - 3A Livestock categories' - 3C Aggregate sources and non-CO₂ emissions on Land 	UNEP-CCC - Consultant
11:15-11:25	Health Break	
11:25- 12:25	Overview of categories within the agriculture sector: Methodologies and Data requirements <ul style="list-style-type: none"> - 3A Livestock categories' 	UNEP-CCC - Consultant

	- 3C Aggregate sources and non-CO ₂ emissions on Land	
12:25-13:00	Discussion: Sources of data and methodologies for collection - Data collection templates (3A and 3C)	UNEP-CCC - Consultant
13:00-14:00	Lunch	
14:00- 16:30	Exercises in using the IPCC Inventory Software <ul style="list-style-type: none"> • IPCC Inventory software- Agriculture sector demonstration • Understanding Livestock Manager • Simulation exercise on inventory compilation • Reporting tables Entering basic data and understanding software functionalities related to the agriculture sector.	UNEP-CCC - Consultant
16:30-17:00	Closing session: Recap of the workshop, open discussion for questions	UNEP-CCC - Consultant
Day 4: 26 Sep – LULUCF SECTOR GHG INVENTORY		
09:00 – 09:30	Overview of LULUCF inventory and challenges in Tanzania	Country Representative
09:30-10:00	The national GHG inventory for the LULUCF sector in accordance with the 2006 IPCC guidelines <ul style="list-style-type: none"> - Overview, general elements of the LULUCF GHG inventory. 	UNEP-CCC - Consultant
10:00-10:45	Land representation. <ul style="list-style-type: none"> - Approaches to land representation and activity data (AD) - Land Representation: Why we need Land Stratification - Methodological Approach - Aligning land national classification with IPCC categories 	UNEP-CCC - Consultant
10:45-11:15	Definition of basic concepts Definition of Carbon Pools <ul style="list-style-type: none"> - Living biomass and dead organic matter - Soil organic matter in mineral soils - Soil organic matter in organic soils - Harvested wood products. Steps in preparing inventory estimates	UNEP-CCC - Consultant
11:00-11:10	Health Break	
11:10-13:00	Generic Methodological Guidance for All Land Categories: Land use categories <ul style="list-style-type: none"> - Forest land - Cropland - Grassland - Wetlands - Settlements and - Other land 	UNEP-CCC - Consultant

13:00-14:00	Lunch	
14:00-14:45	Methodological approaches used in the estimation of emissions/removals in LULUCF sector. - How to use information generated from Land use matrices and create a time series of land area and land are change - Data collection templates	UNEP-CCC - Consultant
14:45- 16:30	Exercises in using the IPCC Inventory Software - IPCC inventory software -Land type manager. - IPCC inventory software- Land representation. - Hands-on exercise on entering data for Forest Land.	UNEP-CCC - Consultant
16:30-17:00	Closing session: Recap of the workshop, open discussion for questions	UNEP-CCC - Consultant
Day 5 : 27 Sep – LULUCF SECTOR GHG INVENTORY		
09:00 – 09:30	Overview of LULUCF inventory and challenges in Tanzania	Country Representative
09:30-10:00	The national GHG inventory for the LULUCF sector in accordance with the 2006 IPCC guidelines - Overview, general elements of the LULUCF GHG inventory.	UNEP-CCC - Consultant
10:00-10:45	Land representation. - Approaches to land representation and activity data (AD) - Land Representation: Why we need Land Stratification - Methodological Approach - Aligning land national classification with IPCC categories	UNEP-CCC - Consultant
10:45-11:15	Definition of basic concepts Definition of Carbon Pools - Living biomass and dead organic matter - Soil organic matter in mineral soils - Soil organic matter in organic soils - Harvested wood products. Steps in preparing inventory estimates	UNEP-CCC - Consultant
11:00-11:10	Health Break	
11:10-13:00	Generic Methodological Guidance for All Land Categories: Land use categories - Forest land - Cropland - Grassland - Wetlands - Settlements and - Other land	UNEP-CCC - Consultant
13:00-14:00	Lunch	

14:00-14:45	<p>Methodological approaches used in the estimation of emissions/removals in LULUCF sector.</p> <ul style="list-style-type: none"> - How to use information generated from Land use matrices and create a time series of land area and land are change - Data collection templates 	UNEP-CCC - Consultant
14:45- 16:30	<p>Exercises in using the IPCC Inventory Software</p> <ul style="list-style-type: none"> - IPCC inventory software -Land type manager. - IPCC inventory software- Land representation. - Hands-on exercise on entering data for Forest Land. 	UNEP-CCC - Consultant
16:30-17:00	<p>Closing session: Recap of the workshop, open discussion for questions</p>	UNEP-CCC - Consultant