



# Capacity Building Workshop on the development of national GHG inventories under the ETF of the Paris Agreement

Organized by the Capacity Building Initiative for Transparency - Global Support Programme (CBIT-GSP) and hosted by the Government of Libya

**Date: 25 - 28 Aug 2024 | Venue: Tripoli, Libya**

## Concept Note

### Background

**The Paris Agreement's Enhanced Transparency Framework (ETF) mandates clear and detailed reporting of national Greenhouse Gas (GHG) inventories.** This involves carefully estimating GHG emissions and removals using both quantitative and qualitative data. The process must be transparent, accurate, complete, comparable, and consistent.

To ensure compliance, the ETF guidelines outline specific requirements for reporting GHG inventory results, including dedicated sections within the Biennial Transparency Report (BTR) and supporting annexes. Additionally, all countries must submit a National Inventory Report (NIR) to the UNFCCC as part of their BTR submission. The NIR consists of a National Inventory Document (NID) and Common Reporting Tables (CRT).

Many countries have developed the capacity to create national GHG inventories through their previous National Communications and Biennial Update Reports (BUR). Some have already begun updating these inventories as part of their Biennial Transparency Report (BTR) preparation. However, a significant challenge arises from the need to report on the inventory development process itself using new formats. Adhering to the transparency requirements outlined in Article 13 demands a clear understanding of these new reporting methods, which may pose difficulties for countries lacking the necessary knowledge and tools.

The CBIT-GSP aims to bolster developing countries' capacity to meet reporting obligations under the UNFCCC and Paris Agreement, ultimately driving more ambitious climate action. To achieve this, the initiative offers comprehensive support at national, regional, and global levels. A key strategy involves establishing ten Regional Networks to facilitate South-South cooperation, knowledge exchange, and learning. By strengthening global initiatives and networks, the CBIT-GSP is committed to supporting countries in reporting greenhouse gas emissions, enhancing their resilience, and transparently monitoring and communicating their progress.

**The Libyan Ministry of Environment has invited the Regional Network for Middle East and North Africa to conduct a training workshop in Tripoli.** The workshop aims to enhance the capacity of Libyan national teams in preparing and reporting national GHG inventories in accordance with the MPGs. This initiative aligns with the regional network's priority of strengthening transparency-related capacity building.



## Objective

The primary goal of the training workshop is to empower national practitioners and experts to enhance the technical quality of National GHG Inventory Reports (NIRs) and Biennial Transparency Reports (BTRs). This will be achieved by providing guidance on aligning reporting processes with the requirements outlined in the MPGs.

### Specific objectives:

- **Enhance** the capacity of national inventory teams to effectively report to the UNFCCC under the Paris Agreement's Enhanced Transparency Framework (ETF) by providing them with essential information and global best practices.
- **Facilitate** practical application of ETF reporting provisions through hands-on exercises and case studies related to national inventory preparation and reporting.
- **Promote** knowledge sharing and peer learning among participating entities' representatives regarding the use of tools and systems for reporting inventory data in alignment with ETF requirements.
- **Identify** shared challenges and opportunities for collaboration among national entities to strengthen national inventory development and reporting.

## Target Audience

This training is designed for technical experts responsible for coordinating national and sectoral GHG inventory development in Libya. Participants will include government officials at both national and sectoral levels, as well as staff from other organizations and entities involved in national GHG inventory reporting under the UNFCCC and Paris Agreement.

## Approach

The training will be conducted in two consecutive phases.

- **Phase I** is a face-to-face workshop where participants will acquire knowledge and practical skills for successful GHG inventory reporting under the ETF through hands-on exercises and presentations.
- **Phase II** is a follow-up phase providing participants with feedback on their workshop exercises and outputs

## Training Language and Materials

While the training workshop will be conducted in Arabic, the training materials will be provided in English



## Agenda

### 1<sup>st</sup> Day | 25 Aug 2024: National inventory systems in practice

Time	Activities
9:00 – 9:10	Registration
9:10 – 9:20	Opening remarks
9:20 – 9:30	Purpose and objectives for the workshop
9:30 – 9:45	Group photo
9:45 – 10:00	tour de table
10:00 – 11:00	<b>P1: Introduction to climate change:</b> Overview of climate change science, impacts, and vulnerabilities
11:00 – 11:30	<b>Coffee break</b>
11:30 – 12:30	<b>P2: The United Nations Framework Convention on Climate Change (UNFCCC):</b> Introduction to the UNFCCC, its objectives, and the Kyoto Protocol
12:30 – 14:00	<b>Lunch break</b>
14:00 – 14:30	<b>P3: The Intergovernmental Panel on Climate Change (IPCC):</b> Overview of the IPCC, its role, and the structure of IPCC reports
14:30 – 15:00	<b>P4: Enhanced Transparency Framework (ETF) under the Paris Agreement:</b> Introduction to the ETF, its components, and the importance of GHG inventories
15:00 – 15:30	<b>Coffee break</b>
15:30 – 16:30	<b>P5: Overview of IPCC GHG Inventory Guidelines:</b> Structure of the guidelines, data requirements, TACCC principles, Tiers and notation keys
16:30 – 17:00	<b>P6: Introduction to GHG Inventory Software:</b> Overview of available software options, basic functionalities, and data management,
17:00 – 17:30	<b>E1:</b> Participants will be introduced to the GHG inventory software and practice basic data entry

### 2<sup>nd</sup> Day | 26 Aug 2024: Energy Sector

Time	Activities
9:30 – 10:30	<b>P7: Energy Sector Overview:</b> Energy balance, fuel consumption data, and emission factors
10:30 – 11:00	<b>Coffee break</b>
11:00 – 11:45	<b>P8: Energy Combustion:</b> Calculation of CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O emissions from stationary and mobile sources
11:45 – 12:30	<b>P9: Fugitive Emissions:</b> Estimation of methane and VOC emissions from oil and gas production and distribution
12:30 – 14:00	<b>Lunch break and pray</b>
14:00 – 14:30	<b>P10: Energy Efficiency:</b> Overview of energy efficiency measures and their impact on GHG emissions
14:30 – 15:00	<b>P11: Renewable Energy:</b> Introduction to renewable energy technologies and their contribution to GHG emission reductions
15:00 – 15:30	<b>Coffee break</b>
15:30 – 17:30	<b>E2:</b> Hands-on Exercise: Energy Sector: Participants will use the GHG inventory software to calculate GHG emissions from the energy sector based on provided data



## 3<sup>rd</sup> Day | 27 Aug 2024: Industrial Processes, Product Use (IPPU), and Agriculture Sector

Time	Activities
9:30 – 10:30	<b>P12: IPPU Sector Overview:</b> Key sources of GHG emissions in the sector
10:30 – 11:00	Coffee break
11:00 – 12:30	<b>P13: Industrial Processes:</b> Estimation of GHG emissions from mineral, chemical, and metal production processes (Cement, Fertilizer, and I&S)
12:30 – 14:00	Lunch break and pray
14:00 – 14:30	<b>P14: Agriculture Overview:</b> Key sources of GHG emissions in the agriculture sector
14:30 – 15:00	<b>P15: Agriculture:</b> Calculation of GHG emissions from enteric fermentation, manure management, rice cultivation, and agricultural soils
15:00 – 15:30	Coffee break
15:30 – 17:30	<b>E3:</b> Participants will use the GHG inventory software to calculate GHG emissions from the IPPU Sector and Agriculture Sector based on provided data

## 4<sup>th</sup> Day | 28 Aug 2024: Waste Sector and Capacity Building

Time	Activities
9:30 – 10:00	<b>P16: Waste Sector Overview:</b> Key sources of GHG emissions from waste
10:00 – 10:30	<b>P17: Waste Management:</b> Calculation of GHG emissions from landfill, waste incineration, and wastewater treatment
10:30 – 11:00	Coffee break
11:00 – 12:30	<b>P18: Waste Treatment and Disposal:</b> Overview of waste management options and their impact on GHG emissions
12:30 – 14:00	Lunch break and pray
14:00 – 14:30	<b>P19: GHG Inventory Data Management and Quality Assurance/Quality Control (QA/QC):</b> Importance of data management and QA/QC procedures
14:30 – 15:00	<b>E4:</b> Participants will conduct a QA/QC check on a sample GHG inventory
15:00 – 15:30	Coffee break
15:30 – 16:00	<b>P20: Uncertainty Analysis:</b> Introduction to uncertainty analysis methods and their application to GHG inventories
16:00 - 16:30	<b>E5:</b> Participants will assess uncertainty for selected emissions
16:30 – 17:15	<b>D1: Capacity Building and Next Steps:</b> Open discussion on capacity building needs, data collection challenges, and reporting requirements (National Inventory System)
17:15 – 17:30	Workshop evaluation and feedback
17:30	Wrap-up and closing of the workshop