

Concept Notes

Training Workshop for National Experts on GHG Inventory Guidelines and Software in Mauritania – Focus on Energy and AFOLU sectors

Organized by CBIT-GSP and UNDP- Climate Promise and hosted by the
Government of Mauritania.

Date: 13 – 17 August, 2024 | Tiguint, Mauritania

Context

The years 2023-2024 constitute a critical phase for the UNFCCC process and for the Paris Agreement, since the Enhanced Transparency Framework (ETF) will enter full implementation mode. The process will be marked by a large-scale transition of Parties from current measurement, reporting and verification (MRV) systems to the ETF, which requires all Parties to operate according to the same operational procedures, officially called “Modalities, Procedures and Guidelines”, with some flexibility for Parties that are developing countries and need it according to their capacities. Currently, Parties are at different stages in terms of their ability to effectively implement existing MRV provisions and prepare for the transition to the ETF.

The Paris Agreement ETF builds on and improves existing measurement, reporting and verification (MRV) arrangements under the Convention. With the adoption of the Modalities, Procedures and Guidelines (MPG) for the ETF and the corresponding common reporting tables, common table formats and outlines, developing country Parties are already planning to transition to the ETF, and some have already taken the first steps in this direction. These MPGs provide specific details on the information that countries must report, the format in which this information must be presented, and the process for reviewing the reported information. The agreements were reached by countries at COP24 in 2018 and were finalized at COP26 in 2021.

In Mauritania, an inventory system is being set up. The Ministry of Environment and Sustainable Development (MEDD) is the focal point of the United Nations Framework Convention on Climate Change (UNFCCC) and has full responsibility for the preparation of the national Greenhouse Gases (GHG) inventory in accordance with the IPCC guidelines and in accordance with the decisions of the Conferences of the Parties. For the preparation of the inventory, the responsibilities are divided between three levels:

- Coordination unit
- Participants or focus groups
- Expert Panel

As part of the implementation of the UNFCCC and the Paris Agreement, the training of experts to improve knowledge in the preparation of GHG inventories and mitigation actions, support for the development of a continuously functioning national MRV system, participation of experts in all regional and international training activities on GHG emissions are some of the needs identified by the international consultation analysis (ICA) exercise for the Mauritania’s first Biennial Update Report (BUR1) .

CRTs play a critical role in the accurate and consistent reporting of greenhouse gas (GHG) emissions to the UNFCCC. These tables provide a standardized framework that allows countries to report their emissions data in a clear, transparent and comparable way. The CRTs are organized into a series of tables and sub-tables, each designed to capture specific aspects of GHG emissions and removals. When using CRTs, countries are required to provide detailed information on their emissions sources,

methodologies and data quality. This transparency helps build trust between countries and allows for in-depth review of reported data.

As such, the CBIT-GSP in collaboration with UNDP on behalf of the Belgian Government on climate transparency intend to organize a technical and practical training session for national experts from Mauritania on the fundamental bases of the inventory under the new IPCC 2006 tool integrating the CRT particularly in the ENERGY and AFOLU Sector which constitute the two key priority sectors. This support responds to [the request for support made by Mauritania on the CBIT-GSP Climate Transparency Platform](#).

The Energy sector will be provided by the CBIT-GSP and the AFOLU sector will be provided by the UNDP.

Objectives of the Workshop

The training aims to strengthen the capacities of targeted countries on greenhouse gas emissions inventory methodologies with the new version of the IPCC 2006 tool. This will specifically involve training national experts from Mauritania :

- for the use of the software and guidelines of the new version of the IPCC 2006 tool;
- procedures for collecting, analyzing and archiving data and information relating to each sector;
- on the data required by the IPCC tool for estimating GHG emissions;
- on the identification of emission factors and/or variations in carbon stocks to be used;
- on the estimation of GHG emissions.
- quality assurance (QA) and quality control (QC) procedures;
- on the analysis of key categories;
- on the calculation of uncertainties linked to the GHG inventory;
- on extracting and compiling CRT tables.

Expected results

- Participants are equipped with the use of the software and the guidelines of the new version of the IPCC 2006 tool and the procedures for collecting, analyzing and archiving data and information relating to each sector.
- Participants are able to estimate GHG emissions using the new version of the IPCC2006 tool in both sectors.
- The analysis by key category and the calculation of uncertainties are mastered by the participants.
- Participants master quality assurance (QA) and quality control (QC) procedures.
- Participants are able to extract the CRT tables for the development of the BTR.

The Training participants

The training is intended for Mauritania for the Energy and AFOLU sectors.

Date and location of training

The training will last 05 days from August 13 to 17, 2024. The first day will be common core and the last 4 days will be conducted in two separate rooms, one for Energy with the CBIT-GSP expert and the other for the AFOLU Sector with the UNDP expert.

Agenda

Day 1: Module 1: Cross cutting / IPCC guidelines		
Duration	Session	Speaker
09:00-09:30	<ul style="list-style-type: none"> Opening of the workshop: <ul style="list-style-type: none"> - Sustainable Development Department - UNDP Representative - Representative of the CBIT GSP. Workshop Objectives 	DDD, UNDP, CBIT-GSP
9:30-10:00	ETF and MPG requirements <ul style="list-style-type: none"> - Questions and answers 	
10:00-10:45	Overview of the BTR <ul style="list-style-type: none"> - Questions and answers 	
10:45 – 11:15	The requirements and flexibilities of GHG inventory reporting in the BTR <ul style="list-style-type: none"> - Questions and answers 	
11:15-11:40	Coffee break	
11:40-12:00	National institutional arrangements: Taskforce on national GHG inventories <ul style="list-style-type: none"> - Questions and answers 	
12:00-12:40	Inventory work plan and inventory cycle management <ul style="list-style-type: none"> - Questions and answers 	
12:40-13:20	Methodologies, parameters and emission factors <ul style="list-style-type: none"> - Questions and answers 	
13:20 -14:20	Lunch break	
14:20-15:50	<ul style="list-style-type: none"> Choice of time series and its consistency 	

	<ul style="list-style-type: none"> • Analysis of key categories <ul style="list-style-type: none"> - Questions and answers 	
14:50-15:20	Data collection approaches and what to do if there is missing data <ul style="list-style-type: none"> - Questions and answers 	
15:20-15:50	Uncertainty analysis <ul style="list-style-type: none"> - Questions and answers 	
15:50-16:20	QA/QC Procedures <ul style="list-style-type: none"> - Questions and answers 	
16:20-16:50	Overview of CRT Tables <ul style="list-style-type: none"> - Questions and answers 	
16:50-17:00	Conclusion and Closing of the day	
17:00-17:20	Refreshment	

Practical training on IPCC Software for the Energy Sector:

Duration	Session	Speaker
Day 2: Identification and entry of activity data for the 1st year		
8:30-11:00	Module 2: Energy sector, its categories and their nomenclatures	Koffi Ayassou
8:30-09:00	Module 2.1: Sub-sector of energy and heat production industries (Identification of activity data)	
09:00-09:30	Module 2.2: Manufacturing and construction subsector (Identification of activity data)	
09:30 -10:00	Module 2.3: Transport sub-sector (Identification of activity data)	
10:00-10:15	Module 2.4: Other subsectors: Fuel combustion in residential and commercial buildings, and the subsector of fuel combustion in agriculture, forestry, fishing (Identification of activity data)	
10:15-10:30	Module 2.5: Fugitive emissions sub-sector and other unspecified sub-sectors (Identification of activity data)	
10:30-11:00	Reporting of results and sharing of tasks	
11:00-11:30	Coffee break	
11:30-12:30	Module 3: Practical exercises: launching activity data entry for the first year of the series	Koffi Ayassou
11:30-12:00	<ul style="list-style-type: none"> ○ Module 3.1: Sub-sector of energy and heat production industries ○ Module 3.2: Manufacturing and construction sub-sector 	
12:00-12:30	<ul style="list-style-type: none"> ○ Module 3.2: Manufacturing and construction sub-sector (Continuation and end) 	

	<ul style="list-style-type: none"> Module 3.3: Transport sub-sector 	
12:30-13:30	Lunch break	
13:30-14:00	Module 3: Practical exercises: launching activity data entry for the first year of the series (Continuation and end)	Koffi Ayassou
13:30-14:00	<ul style="list-style-type: none"> Module 3.4: Other subsectors: Fuel combustion in residential and commercial buildings, and the subsector of fuel combustion in agriculture, forestry, fishing Module 3.5: Fugitive emissions sub-sector and other unspecified sub-sectors 	
14:00-15:30	Module 4: Practical exercise: Creation of other years of the time series and export then import of data from the Excel sheet	Koffi Ayassou
14:00-14:30	<ul style="list-style-type: none"> Module 4.1: Sub-sector of energy and heat production industries Module 4.2: Manufacturing and construction sub-sector 	
14:30 -14:45	<ul style="list-style-type: none"> Module 4.3: Transport sub-sector 	
14:45-15:15	<ul style="list-style-type: none"> Module 4.4: Other subsectors: Fuel combustion in residential and commercial buildings, and the subsector of fuel combustion in agriculture, forestry, fishing 	
14:15-15:30	<ul style="list-style-type: none"> Module 4.5: Fugitive emissions sub-sector and other unspecified sub-sectors 	
15:30-16:00	Coffee break	
16:00-16:30	<ul style="list-style-type: none"> Reporting of results and sharing of tasks 	
Day 3: Estimation of direct GHG emissions and precursors		
08:30-14:30	Module 5: Practical exercises: Choice of parameters, emission factors and integration of uncertainties	Koffi Ayassou
8:00-9:00	<ul style="list-style-type: none"> Module 5.1: Sub-sector of energy and heat production industries 	
09:00-10:30	<ul style="list-style-type: none"> Module 5.2: Manufacturing and construction sub-sector 	
10:30-11:30	<ul style="list-style-type: none"> Module 5.3: Transport sub-sector 	
11:00-11:30	Coffee break	
11:30-12:30	<ul style="list-style-type: none"> Module 5.4: Other subsectors: Fuel combustion in residential and commercial buildings, and the subsector of fuel combustion in agriculture, forestry, fishing 	
12:30-13:30	Lunch break	
1:30-14:30	<ul style="list-style-type: none"> Module 5.4: Other subsectors: Fuel combustion in residential and commercial buildings, and the subsector of fuel combustion in agriculture, forestry, fishing (Continued) 	
14:00-16:30	<ul style="list-style-type: none"> Module 5.5: Fugitive emissions sub-sector and other unspecified sub-sectors 	
14:30-15:30	Module 6: Practical exercise on the estimation of precursor emissions (NO_x,CO,NM_{VOC}x,SO₂) with the EMEP/CORINAIR methodology	
14:30-16:00	Coffee break	

14:00-16:30	Reporting of results and sharing of tasks	
Day 4: Results and preparation for the compilation		
08:30-9:30	Module 6: Practical exercise on the estimation of precursor emissions (NO_x,CO,NMVO_Cx,SO₂) with the EMEP/CORINAIR methodology (Continued and end)	Koffi Ayassou
09:30-11:00	Module 7: Practical exercise: Reference approach and comparison with the sectoral approach	Koffi Ayassou
11:00-11:30	Coffee break	
11:30-12:30	Module 8: Compilation and production of CRTs	Koffi Ayassou
11:30-12:00	Module 8.1: Practical exercise: Preparation and presentation of results tables (sectoral, ref., uncertainties and key categories) with the entry of precursor emissions	
12:00-12:30	Module 8.2: Practical exercise: Preparation and analysis of series.	
12:30-13:30	Lunch break	
13:30-14:30	Production of CRT tables	
14:30-15:30	Preparing data for IGES compilation	
15:30-16:00	Coffee break	
16:00-16:30	○ Reporting of results and sharing of tasks	

Practical training on IPCC Software for the AFOLU Sector:

Duration	Session	Speaker
Day 2: Characterization of activity data and entry of the first year		
08:30–11:00	Module 9: New elements in the sector of Agriculture, Forestry and Land Use (AFOLU)	Sidaty Eida UNDP
08:30–09:00	○ Module 9.1: Agriculture sub-sector (characterization of AD)	
09:00–09:30	○ Module 9.2: Livestock sub-sector (characterization of ADs and the “Livestock manager” sub-sector)	
09:30–10:00	○ Module 9.3: Land allocation sub-sector (validation of matrices and choice of level 1 or 2)	
10:00–10:30	○ Module 9.3: Land use sub-sector (land use manager characterization)	
10:30–11:00	○ Restitution of results and sharing of tasks	
11:00–11:30	Coffee break	
11:30–12:30	Module 10: Practical exercises: launching the entry (1st year)	Sidaty Eida UNDP
11:30–12:00	○ Module 10.1: Livestock sub-sector	
12:00–12:30	○ Module 10.2: Forestry sub-sector and land allocation	
12:30–13:30	Lunch break	
13:30 – 15:30	Module 10: Practical exercises: launching the entry (continuation)	Sidaty Eida
13:30 –12:30	○ Module 10.2: Forestry sub-sector and land allocation (continued)	
14:30–15:30	○ Module 10.3: Aggregated sources sub-sector	
15:30–16:00	Coffee break	
16:00–16:30	○ Restitution of results and sharing of tasks	
Day 3: Finalization of the entry and integration of uncertainties		
08:30–11:00	Module 11: Practical exercises: entering FOLU data	Sidaty Eida
08:30–09:30	○ Module 11.1: Sharing entered data	
09:30–11:00	○ Module 11.2: Rectification of data from other sources, finalization of the entry and integration of uncertainties	
11:00–11:30	Coffee break	
11:30–12:30	Module 11: Practical exercises: entering FOLU data (continuation)	Sidaty Eida
11:00–12:30	○ Module 11.3: Resumption of FOLU entry (group work)	
12:30–13:30	Lunch break	
13:30–15:30	Module 11: Practical exercises: entering FOLU data (continuation)	Sidaty Eida
14:30–15:15	○ Module 11.4 FOLU entry (“Continuation” group work)	
15:15–15:30	○ Module 11.5: Return of results and sharing of data entered	

15:30–16:00	Coffee break	
16:00–16:30	o rectification of data from other sources and sharing of tasks	
Day 4: Results and compilation preparation		
08:30–11:00	Module 11: Practical exercises: entering FOLU data (continuation and End)	Sidaty Eida
08:30–09:30	o Module 11.6: Sharing entered data	
09:30–11:00	o Module 11.7: Rectification of data from other sources, finalization of the entry and integration of uncertainties	
11:00–11:30	Coffee break	
11:30–12:30	Module 12: Compilation and production of CRTs	Sidaty Eida
11:30–12:00	o Practical exercise: Preparation and presentation of results tables (sectoral, ref., uncertainties and key categories)	
12:00–12:30	o Practical exercise: Preparation and analysis of series.	
12:30–13:30	Lunch break	
13:30–14:30	Module 12: Compilation and production of CRTs (continuation and end)	Sidaty Eida
13:30–14:30	o Production of CRT tables	
14:30–15:30	o Preparing sharing data for IGES compilation	
15:30–16:00	Coffee break	
16:00–16:30	o Restitution of results and sharing of tasks (xml)	

Day 5: Common Core / Compilation of the two sectors and closing		
08:30–09:30	o Data sharing and database consolidation	
09:30–11:00	o Rectification and finalizing sharing data (xml)	
11:00–11:30	Coffee break	
11:30–12:30	Module 13: Compilation of the two sectors	Koffi Ayassou / Sidaty Eida
11:30–12:30	Practical session on the IPCC2006 software relating to the compilation of the two sectors Energy and AFOLU. “xml and Excel”	
12:30–13:30	Lunch break	
13:30–14:30	Module 13: Compilation of the two sectors (Continuation and end)	Koffi Ayassou / Sidaty Eida
13:30–14:30	o Analysis of key categories, uncertainties,	
14:30–15:30	o Preparing and extracting CRT tables	
15:30–16:00	Coffee break	
16:00–16:30	Closing ceremony	

The trainers

The training will be provided by the technical team on climate transparency from UNDP and CBIT-GSP, with recognized expertise in conducting GHG inventories. The CBIT-GSP expert will cover the Energy Sector and the UNDP Expert will cover the AFOLU Sector.

Training methodology

The training methodology will be proposed by expert trainers and will be based on an interactive approach allowing exchanges between trainers and participants. The trainers will offer course materials to achieve the expected objectives. The experts will assist the country to process the actual data for the two Energy and AFOLU sectors and extract the CRT Tables already filled in with a view to covering and contributing to the development of the BTR.

Training documents and logistics

The course materials will, among other things, consist of GHG inventory manuals, IPCC 2006 software, USB keys and other relevant materials.