

STRENGTHENING THE CAPACITY OF INSTITUTIONS IN UGANDA TO COMPLY WITH THE TRANSPARENCY REQUIREMENTS OF THE PARIS AGREEMENT

(2018 – 2021)

PROJECT RESULTS AND LESSONS LEARNT

Executing Agency

Ministry of Water and Environment (The Climate Change Directorate - CCD)



Executing Partners

Vital Signs and The Africa Innovations Institute (AfrII)



AUGUST 2021

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1 ABOUT THE PROJECT

Project background and Implementation Arrangements

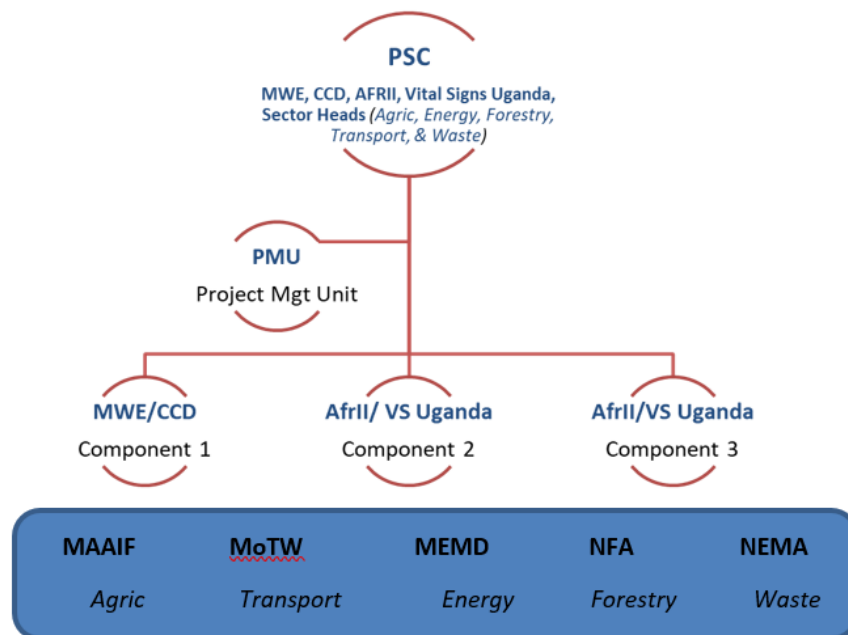
Uganda is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and signatory to the Paris Agreement. Upon signing the Paris Agreement, the Conference of Parties (CoP) requested the Global Environment Facility (GEF) to support the establishment and operationalization of the Capacity Building Initiative for Transparency (CBIT) to assist developing countries to meet the enhanced transparency requirements of the Paris Agreement in both the pre - and post-2020 period.

The CBIT aims to enable countries to establish and/or strengthen their in-house capacity to track progress on national commitments made under the Paris Agreement and to produce more comprehensive and accurate reports e.g., greenhouse gas inventory reports, biennial update reports, and even national adaptation plans monitor climate action at the country level and report on those climate actions to the international community.

The CBIT Uganda project was approved by the Global Environment Facility (GEF) in May 2018 and actual implementation started in July 2018. The [project was officially launched](#) on 3rd October 2018.

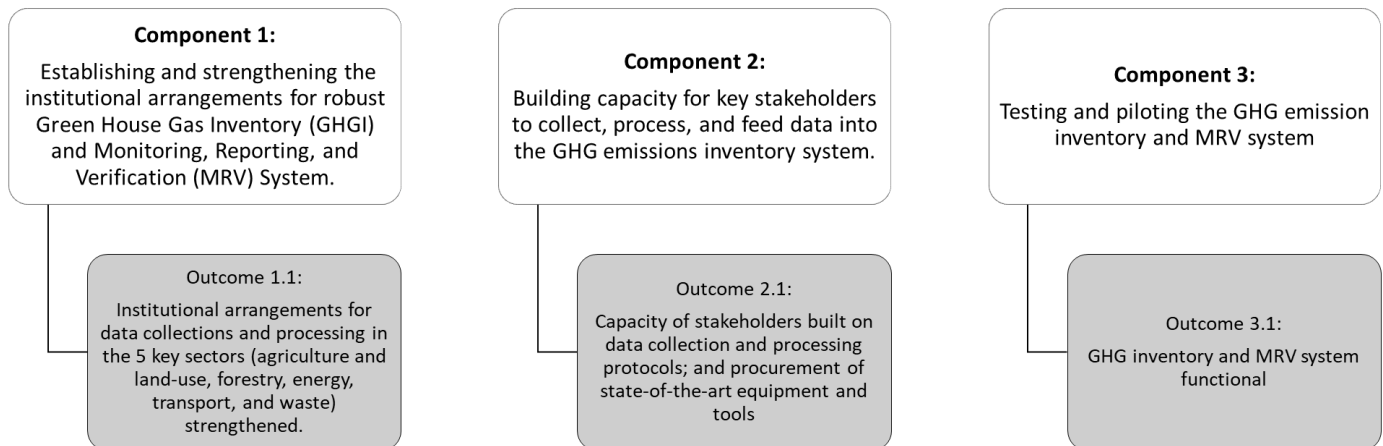
The project was funded by the [Global Environment Facility \(GEF\)](#) through [Conservation International \(CI\)](#) and implemented by the [Climate Change Department \(CCD\)](#) at the Uganda Ministry of Water and Environment (MWE) in partnership with [Africa Innovations Institute \(Afril\)](#) and [Vital Signs](#) at Conservation International (CIGEF).

Figure 1: The project's overall implementation structure



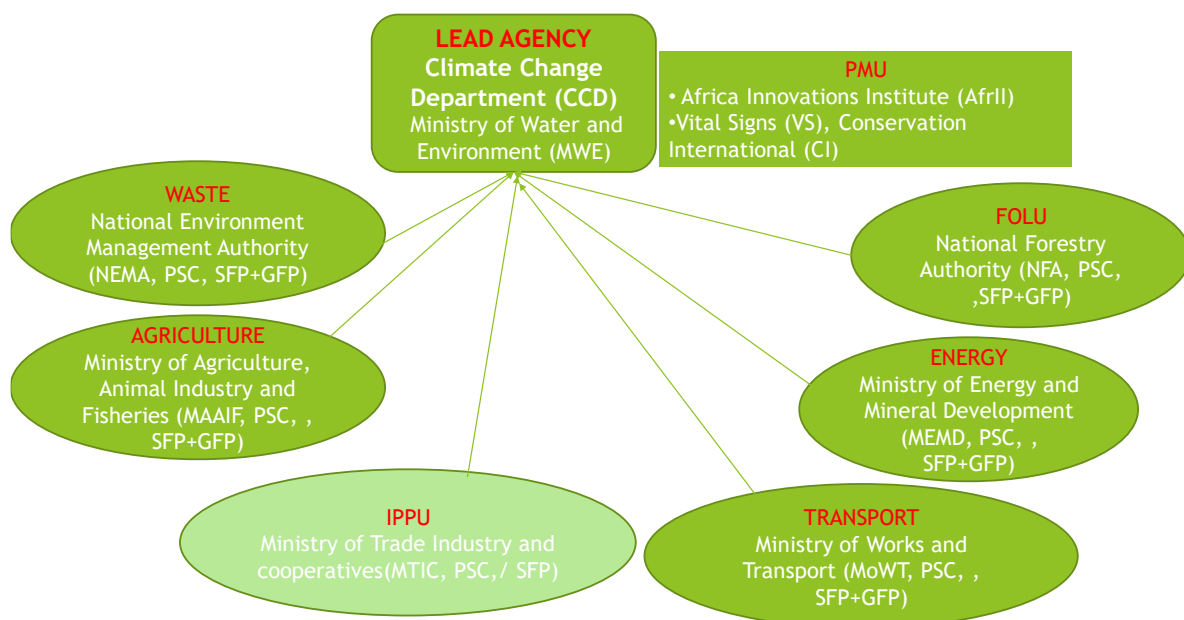
The project's objective was: *To support Institutions in Uganda to respond to the Transparency Requirements of the Paris Agreement.* This project had three main components outlined in Figure 2.

Figure 2: The CBIT Uganda project components and outcomes



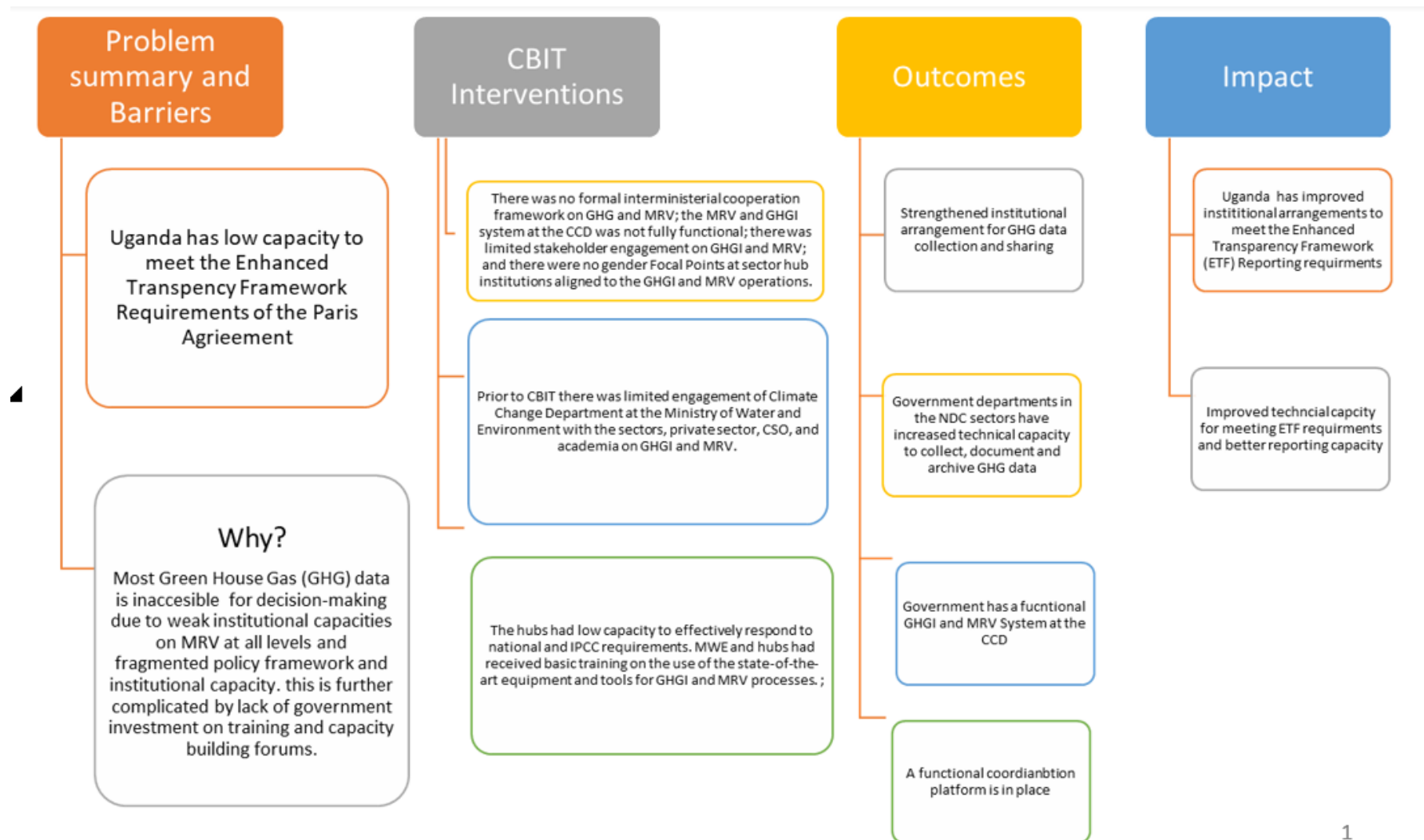
The key project partners/Green House Gas (GHG) sectoral hubs are provided in Figure 3.

Figure 3: The key project partners/Green House Gas sectoral hubs



The Theory of Change (CBIT Uganda)

The project's Theory of change is summarized below.



2 ACHIEVEMENTS

Historically, concerning Uganda's Green House Gas Inventory (GHGI) and transparency efforts, the two major stubborn capacity-related issues have been:

- a. **Lack of formal Green House Gas (GHG) data-sharing arrangements between Uganda's lead government institution governing climate change matters and key institutions in the GHG emitting sectors:** The Uganda Climate Change Department (CCD) under the Ministry of Water and Environment (MWE CCD) is mandated to govern and co-ordinate national climate change actions (Mitigation and Adaptation) in different sectors. Historically, there has been a lack of formal GHG data sharing arrangements between MWE CCD and emitting sectors and this impeded effective GHG reporting and tracking progress of Nationally Determined Contributions (NDCs).
- b. **Limited knowledge and skills at the emitting sector level, to measure and compile GHG data is a major hindrance to effective Green House Gas Inventory (GHGI) and fulfillment of the enhanced transparency requirements.** Previously, independent consultants were hired to prepare the inventory and national GHG reports. Additionally, most GHG emitting sector teams were not fully engaged in these activities resulting in uncertainty and lack of a centralized data transmission system.

The CBIT Uganda Project helped to address the capacity issues mentioned above by achieving the following achievements

Achievement 1: Formalization of GHG data sharing process

1. The CBIT Uganda project has formalized the process of GHG data and information sharing:

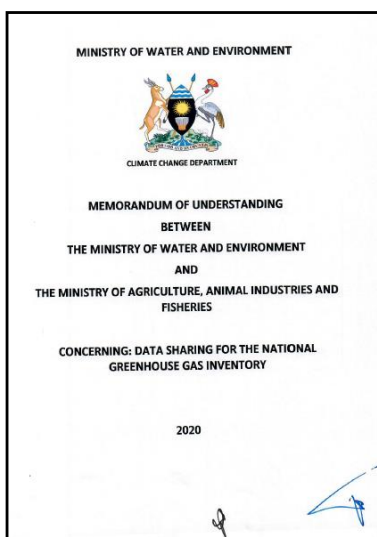
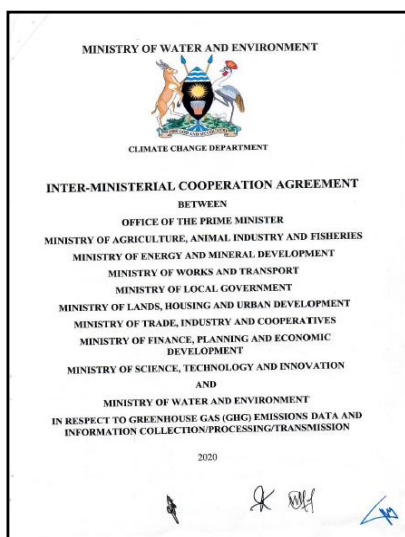
Through CBIT Uganda, an [Inter-ministerial Cooperation Agreement](#) for GHG data collection, processing, and sharing is in place and operational. Four ministries have so far signed the Inter-Ministerial Cooperation Agreement. To operationalize the Inter-ministerial Cooperation Agreement, [a technical guide on GHG data sharing](#), and [five sectoral Memoranda of Understanding \(MoU\) on data sharing](#) for the National GHG Inventory were signed between the MWE CCD and 5 sector hub institutions. The MoUs for sector hub institutions can be accessed by clicking the respective links: [Ministry of Agriculture, Animal Industry and Fisheries \(MAAIF\)](#), [Ministry of Energy and Mineral Development \(MEMD\)](#), [Waste \(National Environment Management Authority - NEMA\)](#), [Forestry and other land uses \(National Forestry Authority -NFA\)](#), and [Transport \(Ministry of Works and Transport - MoWT\)](#) and the sectors have developed sectoral GHGI and MRV which they submitted to MWE CCD. Notably, there was no formalized engagement of GHG data sharing before the implementation of the CBIT Uganda project. The GHGI and National MRV systems were hosted at MWE CCD, but none were operational. The objectives of the MoU are provided below:

- i. to streamline the collection, processing, and sharing of GHG data and information emitting sector ministries and MWE CDD for purposes of reporting to the United Nations Framework Convention on Climate Change (UNFCCC).
- ii. to support the development of the National GHG Inventory, for purposes of enhancing transparency and reporting under the Paris Agreement of the UNFCCC, and to guide policy decisions at the national level.

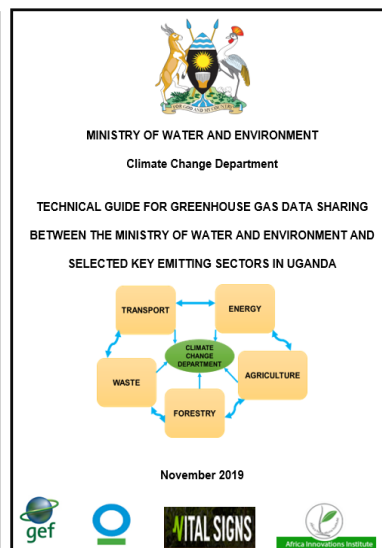
- iii. to clearly define the roles and responsibilities of MWE CCD and emitting sectors as relates to GHG data and information collection, processing, and sharing for UNFCCC reporting.
- iv. to exchange GHG data and information, and share expertise, emission factors, and methodologies pertaining to the development of the National GHG Inventory

2. **The CBIT Uganda project has increased intersectoral interaction and communication:** The project supported the development of the Uganda MRV portal to support communication on data collection sharing and transmission to MWE CCD. The portal was handed over to the MWE CCD and it will be linked to the National Integrated MRV tool which is being established at the MWE CCD with support from UNDP-Uganda.

Inter-ministerial Cooperation Agreement & MoUs on GHG data collection, processing and transmission



Technical guide on GHG data sharing approved and signed as Annex to MoU





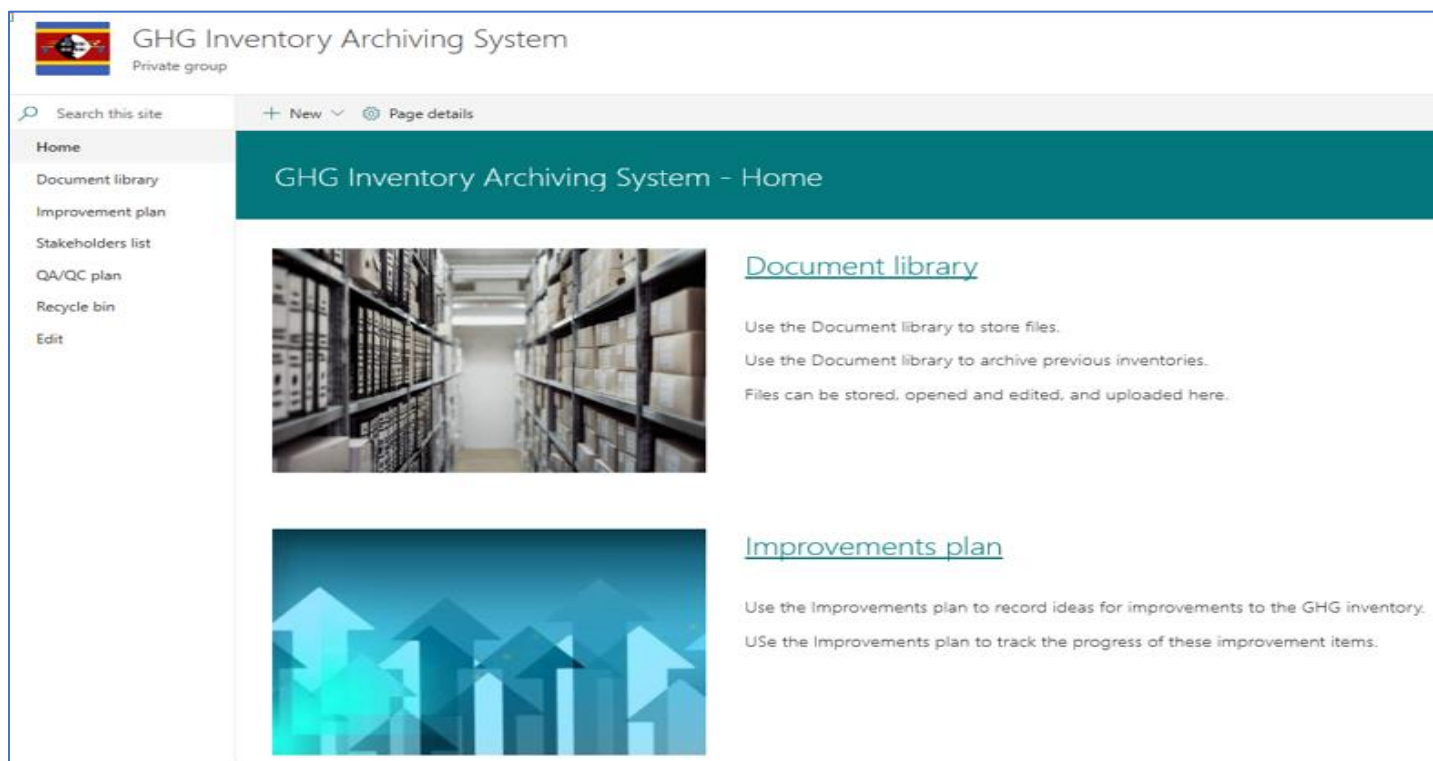
Five (5) MoUs for GHG data sharing were signed between MWE and NFA, NEMA, MEMD, MoWT, and MAAIF.

Achievement 2: Supported national priorities and decision-making

Beyond fulfilling international reporting requirements, the CBIT project supported national priorities and decision-making. For instance, the CBIT supported 2016-2019 GHG inventories for the six sectors will serve as a benchmark for ongoing revision of the NDC. The inventory revealed key areas and gaps for government to consider in supporting. Status reports, fact sheets, and policy briefs will guide decision-making for planning and budgeting for GHGI and MRV.

Uganda MRV portal developed. The CBIT project supported the development and operationalization of an MRV portal based on six sectoral hub data systems (Agriculture (MAAIF), energy (MEMD), Waste (NEMA), Forestry and other land uses (NFA), Transport (MoWT), and Industrial Processes and Product Use (MTIC). The sectors developed sectoral GHGI submitted the data to the Uganda MRV portal.

The sectoral GHGI and Uganda's MRV portal were handed over to the CCD and this will be linked to the National Integrated MRV tool which is being established at the CCD with support from UNDP. The GHGI (2016-2019) for the sectoral MRV on emission was developed by the trained National GHGI Experts majority of whom are from the Nationally Determined Contributions (NDC) government institutions and therefore the process for data acquisition and inventory compilation was cost-effective. Before CBIT, GHGI compilation was done by hired consultants who faced the challenge of obtaining data from the sectors and reported mainly based on expert judgment with very high uncertainties



Achievement 3: Strengthened technical capacity to collect, process, and feed data into the GHG Inventory system.

The CBIT Uganda project has strengthened technical and institutional capacity to collect, process, and feed data into the GHG inventory system. For instance, eighty-one (81) participants (31% women and 69% men) from six sectors were trained on domestic MRV and the IPCC reporting requirements. The breakdown of trainees is as follows: 62 trainees graduated with a certificate as national GHGI experts (35% women and 65% men), 16 observers, 3 recognized national experts. Before the CBIT Uganda project, the sector teams only received basic theoretical training on domestic MRV and IPCC guidelines, but no experience of GHG data collection or processing for GHGI and MRV systems.

Sample completion certificates received by participants of the CBIT supported Uganda GHGI and MRV training are provided below.



CERTIFICATE OF APPRECIATION

THIS CERTIFICATE IS GIVEN TO

Eric Musk

for the contribution to the
GHG Inventory Capacity Building course

which took place between March – June 2020

Sponsored by



CONSERVATION
INTERNATIONAL



Under the high patronage of



MINISTRY OF WATER AND ENVIRONMENT
CLIMATE CHANGE DEPARTMENT

PROF. MAGNUS UJU AMAJIRIONWU, PHD
Vice Chancellor

June 16th, 2020 Kampala (Uganda)



EMMA SALISBURY
Lead Instructor

The **GHG Inventory Capacity Building** training was funded by the Global Environment Facility (GEF) through Conservation International, and delivered through the Capacity Building Initiative for Transparency (CBIT) “Strengthening the Capacity of Institutions in Uganda to Comply with the Transparency Requirements of the Paris Agreement” project. The CBIT project was executed by the Ministry of Water and Environment, Climate Change Department (MWE-CCD) of Uganda and the Africa Innovations Institute (AfriII).



The training programme was conducted by the Consultant Group, composed of Petromall Ltd, Aether Ltd, Nexus International University (formerly the Virtual University of Uganda) and Ndege Skies Ltd, represented by Petromall Ltd. The teaching body was composed by **Aether Ltd** GHG Inventory international professional specialists.



Scope of the GHG Inventory Capacity Building Training

1. Introduction to the principal software: ZOOM, MOODLE, SharePoint MRV tool and data depository
2. Overview of inventory compilation methodologies, including IPCC 2006 Guidelines
3. Inventory management, roles and responsibilities within a national GHG inventory system
4. Data collection for national GHG inventories
5. Sector specific training (Energy, Transport, IPPU, FOLU, Waste and Agriculture)
6. Key category analysis
7. Inventory Improvement Plans
8. Time Series consistency
9. Quality assurance and quality control
10. Precursors and Indirect Emissions
11. Excel software training
12. IPCC software training
13. Uncertainty assessment
14. Training and procedures for GHG Inventory Compilation and MRV in Uganda
15. Stakeholder engagement
16. GHG inventory reports including method statements
17. Communication of GHG inventory outputs

List of sectors and GHG Inventory international professional trainers

Sector	Trainer
Energy and Transport	Katrina Young and Holly Zhang
Agriculture	Beatriz Sanchez and Justine Raoult
Forestry and Other Land Uses (FOLU)	Rosie Brook and Henry Irvine
Industrial Processes and Product Use (IPPU)	Emma Salisbury and Georgina Mansell
Waste	Lucy Garland and Richard Claxton

Nexus International University, formerly Virtual University of Uganda, Plot 1613, Tank Hill Road, Muyenga – Kampala, P.O. Box 70773 Clock Tower - Kampala – Uganda, Tel: +256 393 202136/7

Achievement 4: Built strong and sustainable institutional arrangements for transparency.

This project supported the development of institutional frameworks for GHG data collection and sharing. Five institutions (National Forestry Authority (NFA), Ministry of Works and Transport (MoWT), Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Ministry of Energy and Mineral Development (MEMD), and National Environment Management Authority (NEMA) signed MoU on GHG data sharing with Ministry of Water and Environment (MWE CCD).

A technical guide on GHG data sharing was developed and annexed to the MoUs. Five ministries have signed an inter-ministerial cooperation agreement on GHG data and information collection, processing, and sharing. These institutional frameworks support the National Climate change Bill 2020 to mandate the institutions to collect, share, and effectively report on the GHGs in fulfillment of the transparency requirements.

Procurement of MRV equipment for MWE CCD and five sector hubs. The CBIT project procured MRV equipment for MWE CCD and five sector hubs namely: agriculture and land use; forestry; energy; transport and waste. Before the CBIT Uganda project, the institutions had gaps in equipment and the procurement was demand driven. The project targeted equipping at least 3 sector hubs with MRV tools and equipment. The equipment was handed over to the respective institutions on 18th March 2020 during the launch of training on GHGI and MRV.



Handover of equipment to sector hubs and CCD by Mr. Collins Olanya on behalf of the Office of the Prime Minister

Standardization of data collection tools: Before CBIT, there was no standard protocol and tool for collection and processing GHG data. The project targeted to equip at least three sectors with tools. CBIT brought together stakeholders from Africa Innovations Institute (AfrII), Climate Change Department (CCD), Uganda Bureau of Statistics (UBOS), and the respective sector institutions to revise or develop activity data collection tools to conform to the IPCC requirements.

Protocols and tools were developed for four sectors - Agriculture, transport, energy, and Waste sector. Details of the tools are summarized in Table 1 and are available on request from the respective sector hubs or the CCD MWE.

Table 1: Protocols and tools were developed for four sectors - Agriculture, transport, energy, and Waste sector.

Sector	Organization	Tool	Contribution of CBIT	Status of Tool
1. Agriculture	Uganda Bureau of Statistics (UBOS) and Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)	Livestock Census	Revised	Rolled out
		Crop Census	Reviewed	Under Revision
2. Energy	Ministry of Energy and Mineral Development (MEMD)	Stationary Combustion	Developed	Ready for piloting
		Fugitive Emissions	Developed	Ready for piloting
3. Transport	Ministry of Works and Transport (MoWT)	Mobile combustion	Developed	Ready for piloting
4. Waste	National Water and Sewerage Corporation (NWSC)	Wastewater	Revised	Ready for piloting
	National Environment Management Authority (NEMA) and Uganda Bureau of Statistics (UBOS)	Municipal Solid Waste	Revised	Ready for piloting
		Hazardous Waste Monthly Records	Revised	Ready for piloting
	National Environment Management Authority (NEMA)	Hazardous Solid Waste Daily form	Revised	Ready for piloting
		Hazardous Solid Waste Data Monthly Compilation Form	Revised	Ready for piloting
		Composition	Revised	Ready for piloting

3 CHALLENGES AND LESSONS LEARNT WHEN TRYING TO MEET NEW OR MORE CHALLENGING ASPECTS OF THE ENHANCED TRANSPARENCY FRAMEWORK

Challenges

The key challenges experienced by Uganda when trying to meet the requirements of the ETF are provided below:

- a) There are still major data gaps that limit the fulfillment of the Transparency, Accuracy, Completeness, Comparability (TACC) principle.
- b) A lot of activity data is unreported because it is not readily available especially data from academia and non-state actors.
- c) The data collection tools previously used were not standardized so missing some key GHG indices.
- d) Tracking of mitigation and adaptation action in Uganda still faces the challenge of lack of established baseline. It is hoped that the CBIT supported 2016-2019 GHGI for the 6 sectors will provide key information for setting baselines in the ongoing revision of the NDC. There is also still limited capacity for measuring the GHG emissions and offsets by many data providers, and there is a need for sensitization of all data providers on the importance of providing accurate information.
- e) Low women engagement. Few women were actively engaged in GHGI and MRV, yet they were interested in the subject matter. The low engagement was majorly attributed to a low recruitment of women in technical and high-level positions in the science sector specifically climate science. When stakeholders were sensitized about the importance of gender in GHGI and MRV, more women showed interest in GHGI and MRV.

Lessons learnt

The key lessons learnt when implementing transparency activities in Uganda are provided below:

- a) **Engaging sector teams to compile the GHG data and update the inventory is more efficient than relying on consultants.** The sector teams collect or aggregate the data from their respective data providers and can access more data and information compared to the consultants. Engagement of in-house staff is more efficient in terms of ensuring accuracy, saving time and money
- b) **Uganda has previously received a series of theoretical training on IPCC guidelines and GHGI but with limited hands-on experience of the participants.** CBIT's hands-on GHGI and MRV training has equipped a critical mass of national experts with the skills to compile activity data and be able to process national and international reports. The hands-on training has guided the project on the identification of the critical gaps which are mainly data gaps and the need for capacity to calculate country-specific emission factors. The teams from the different sectors were able to cooperate and obtained data from all the data providers to compile the inventory.

- c) The experience gave them ownership of the inventory and they proposed practical strategies to improve subsequent inventories. **If the trained sector experts are continuously engaged in inventory compilation as one of their routine duties, the quality of the data collected, and inventory and reports will improve greatly.** This is especially because they are in the best situation to understand the strengths and weaknesses at hand from data collection to processing and reporting e.g., assumptions made, and improvements needed.
- d) **Learning by doing is informative, builds ownership, and can foster sustainability of the GHGI.** The sector teams were pleased to have GHGI at the end of the training session that they had produced, and which will inform the sector and national decision-making including contributing to the third national communication. All activity data collection tools previously were not standardized and the hands-on engagement with the stakeholders has made them appreciate the standardized data protocols produced with support from CBIT. The teams were eager to pretest the tools and explore how much improvement to the inventory the new tools would contribute.
- e) **High-level engagement is key in capacity-building activities and plans to support decision-making e.g.,** redefining roles and responsibilities of staff at the sectors and continued support for the improvement of the GHGI and MRV. The high-level officers in many institutions are not much informed about GHGI, MRV, and their importance. **There is, therefore, a need for capacity enhancement for the leaders, not just the technical staff. There is a need for tailor-made capacity building for institutions to complement the capacity building of individuals working in the institutions. The Uganda MRV institutional framework needs operationalizing.**



CBIT project Manager Dr Felly M Tusiime briefing NEMA's Executive Director Dr. Tom Okurut on CBIT work. Looking on is Mr. Dan Kiguli the Waste Sector Focal Point

- f) **Strengthening institutional arrangements through MoU and cooperation frameworks takes time and conviction.** The lesson learnt therefore is do not underestimate the time needed for building or strengthening institutional frameworks across different sectors. It is better to start the process at the beginning and make it as participatory as possible.
- g) **Capacity building is a process therefore at every stage of capacity building gaps or needs must be identified and possible solutions explored.** Therefore, there is a need to establish a framework to assess progress in capacity building with clear targets and very specific indicators to guide capacity building support and reveal the significance or impact of the capacity built.

4 RECOMMENDATIONS

The following recommendations/ approaches have been deduced based on the experience and lessons learnt through the implementation of this project:

- a) **Stakeholder engagement.** The project benefited immensely from the cooperation of all stakeholders (government and non-state actors). There was no major challenge in participation since stakeholders embraced the capacity-building activities from the inception of the project. Key stakeholders were engaged in the design, planning, and implementation of the project. The project brought together experts from different sectors to a family of GHG and MRV stakeholders. Close collaboration with stakeholders made identification of the needs and possible solutions to existing challenges easy. The close engagement made stakeholders appreciate the role of collaboration and sharing of GHG data. The CBIT Project Management Unit (PMU) was able to jointly develop MoU, Inter-ministerial cooperation agreements, concept notes for further capacity-building support, status reports on IPCC compliance by sector, and policy briefs to guide decision-making based on the project outcomes. The high turn up for the GHGI training and commitment to developing the sector MRV and GHGI is attributed to the good relationship that the PMU established with stakeholders from the onset of the project.
- b) **The high-level engagement was key in the success of the project.** Invitations to major project activities were signed by the Permanent Secretary Ministry of Water and Environment or the Commissioner Climate Change Department. Cooperation from top leadership enabled successful implementation of the activities.
- c) **Hands-on training on GHGI and MRV was very effective in imparting knowledge to the participants.** This was referred to as **Learning by Doing**. Participants were happy to have learned to compile GHG data and write sector inventory reports. This approach is key for the ownership and sustainability of project activities. The trained teams were able to identify the gaps needed to improve their respective sector inventories.
- d) **Recommendations to support GHG data collection and sharing:**
 - i. Support piloting and adoption of the standardized tools
 - ii. Use the guidelines as provided in the technical guide and MoUs to continuously update the GHGI
 - iii. Use the established MRV portal to archive and share GHGI and MRV data collected by sectors
 - iv. Maintain existing relationships and develop new partnerships to support GHGI and MRV development process
 - v. Lay strategies to internally allocate resources to support GHGI and MRV e.g., leverage the CC fund proposed in the Climate Change Bill 2020
 - vi. Include GHG MRV and in sector plans and budgets
 - vii. Diversify sources of finances to support GHGI and MRV through collaboration and grant proposal development with academia and non-state actors.
 - viii. Adopt recommendations provided in the policy briefs produced by the CBIT project
 - ix. Fill data gaps by extensive primary data collection using the standardized tools
 - x. Continuously engage key state and non-state stakeholders in the sector and national GHGI and MRV activities

- xi. Need to engage more women in transparency work: Although it had been cited in the earlier engagements that women's participation can be attributed to low recruitment and lack of women in technical positions, the CBIT Uganda project later revealed that in some sectors more women were willing to participate than had been imagined. On average, overall, 51% women and 50% men participated in the project during the implementation phase. Eighty-one (81) stakeholders/trainees (31% women and 69% men) from six sectors directly benefitted from this project.

5 NEXT STEPS FOR UGANDA IN RELATION TO TRANSPARENCY

Beyond the scope of the CBIT project, the remaining priority gaps and needs that the country must address in the near term are:

1. Massive sensitization of government, private sector, and CSO on GHG inventory and the importance of the collection and sharing of quality data.
2. There is a need for a second wave of training leading to a second iteration of the GHG Inventory. This will ensure that the skills gained through CBIT training are grounded and remain practical

6 KNOWLEDGE MANAGEMENT PRODUCTS GENERATED BY THE PROJECT

Status reports and policy briefs were developed for the six sectors. Stakeholders were encouraged to share and use the knowledge materials generated to inform decision-making in support of the GHGI and MRV systems. The project documents and knowledge materials are available on CCD, AfrII websites, and the global CBIT coordination platform. See the links below.

Sector teams and CCD should continue to use the Uganda MRV portal and continuously visit the CBIT global coordination platform for sharing information and updates.

The knowledge materials generated during project implementation were shared with development partners who are interested in GHG and MRV in Uganda e.g., UNDP-NDC support programme, GIZ-TraCs project (to support transport sector GHGI), GIZ-ProCSA project (to support CSA NDC implementation in the agriculture sector). This was done to inform the partners on what CBIT has established and achieved and what needs further support.

The Uganda GHGI & MRV expert network was established as a forum to keep the teams connected and frequently share knowledge and information on GHGI and MRV. The network is expected to keep communicating through various information and knowledge management platforms including email and WhatsApp. The network should be used to maintain existing relationships and develop new collaborations to support GHGI and MRV development process.

More information and documents generated by this project can be accessed on the following platforms:

The Global Environment Facility (GEF) Website: <https://www.thegef.org/project/strengthening-capacity-institutions-uganda-comply-transparency-requirements-paris-agreement>

The Uganda Ministry of Water and Environment (Climate Change Department)
<http://ccd.go.ug/cbit/>

Conservation International GEF (CIGEF) Agency Website:
<https://www.conservation.org/gef/projects-list/cbit-uganda>

CI Vital Signs: <http://vitalsigns.org/tags/cbit-uganda>

The Africa Innovations Institute (Afrii): <https://www.afrii.org/category/cbit/>

The CBIT Global Coordination Platform Website:
<https://www.cbitplatform.org/index.php/projects/strengthening-capacity-institutions-uganda-comply-transparency-requirements-paris>

The project published policy briefs, fact sheets, blogs, and or newsletters. See examples below and more documents can be accessed on the websites listed above.



Front pages of sample status reports and factsheets on GHG inventory in the different sectors



CI-GEF PROJECT AGENCY

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