

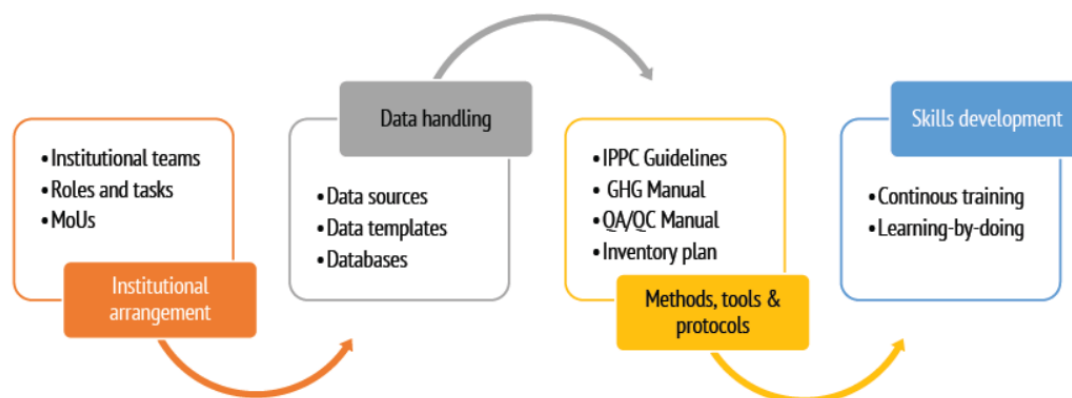
Lessons on National Arrangements for GHG Inventories: Case Study of Ghana

Background:

Capacity to prepare GHG inventories based on clear estimation methods for GHG emissions, using accurate and consistent data remains a challenge for many non-annex 1 countries. Ghana's national inventory system continues to improve because of reforms aimed at strengthening its national system. Chief among these reforms are the entrenchment of the institutionalization process and continuous training in new developments in the GHG inventories.

National system for sustainable inventory preparation:

Ghana adopted a Climate Ambitious Reporting Program (GCARP) as its domestic MRV system in 2013. The operational function of GCARP was to put in place a workable climate data management to support regular national and international reporting of information on GHG inventory, climate actions and support. Although on paper, the GCARP system was well designed to suit the Ghanaian situation, implementation of the various components on the ground was at different levels. The GHG component of the GCARP has seen some reforms over the years, all with the view to improving on the way it functions and eventually enables Ghana's capability to continuously prepare and publish high-quality emission inventory on time. The GHG component of the GCARP is underpinned by four interwoven parts namely institutions, data handling, methods, tools and protocols and skills development (see the figure below).



Reforms in the Ghana GHG inventory system

Reforms are aimed at expediting the institutionalization of the emissions inventory tasks within the governmental set-up. This approach is the surest way to instil the culture of emission inventory in the operations these institutions and demonstrate the importance and value-addition of the results for policymaking. The reforms focus on sustaining gains in the past and initiate the implementation of the priority planned improvements. These reforms include;

Entrenching institutional roles: Transferring the core inventory task to the relevant line ministries. And thus, more than thirty national experts from twenty organizations have been involved in the preparation of this inventory. They revised the MoU that guide the working relationship between the EPA and the institutions involved and continued training of experienced experts on advanced topics and fresh entrants on the use of IPCC guidelines. The next focus is on exploring opportunities to weave the inventory tasks into the work plans of, at least, the sector lead institutions. Three sectors are going to receive special attention.

Those that regularly publish national data like Energy statistics, Agriculture Facts and Figures and the National Forest Monitoring System, they intend to synchronise the two publications to ensure that we get strong consistencies in the dataset and the timelines.

Strengthening data handling system: The timely generation and sharing of quality data from credible national and international sources are key to the inventory. Thus, the strategy is to link the inventory data collection to the existing sector data platforms such as the Energy Statistics, Agriculture Facts and Figures, National Forest Management System (NFMS), Annual Environmental Plans such that at any given time when the data are originally published by the data provider it is automatically transferred to inventory central database hosted at the EPA. In situations where the data in the

public domain are inadequate, a data template is used to collect the data through official request. Besides, all the inventory data and reports are documented and published on the climate change data hub for easy retrieval from url <https://climatedatahubgh.com/>. In the coming years, the focus will on the integration of the functionality of the existing data generation platforms.

Revision of inventory cycle: The timelines and work schedules in the two-year inventory cycle have been revised to become more efficient. For example, more time have been allocated to planning and preparation stage of the inventory to remove the bottlenecks in the system such duplication or time overlaps, unrealistic timelines and less emphasis on the planning activities.

Specialised training: Two experts in Agriculture and LULUCF successfully participated in the UNFCCC Experts Review Training and participated in a number of UNFCCC annual GHG inventory review for Annex 1 Party. Furthermore, many of the sectors' experienced experts and new entrants participated in several international and national training programmes on the various GHG inventory topics including the use of 2006 guidelines. Ghana was the first African country to undergo a voluntary in country review of its GHG inventory system. This provided a platform for the national experts to practically learn the best practices for the inventory.

Adoption of country-specific GHG manual and QA/QC guidelines: a country-specific protocol for the inventory has been adopted and is in use. The Environmental Protection Agency (EPA), as the national coordinating entity of the inventory, led the preparation and training on the use of GHG inventory manual and QA/QC and Uncertainty Management to guide sector inventory as well as the task of the generalist. The Forestry Commission has started work to establish a forest monitoring system to improve forest monitoring capacities. As part of this initiative, the Forestry Commission has developed 12 standard operating procedures (SOPs) to guide the setting up of forest reference level. and LULUCF GHG inventory.

Information on institutional arrangement: There are nearly thirty national experts from twenty different public and private institutions. Each institution has been assigned a specific role at every stage of the inventory cycle with reporting lines. In each inventory, the EPA and the sector lead institution agree on the tasks and capture them in the memorandum of understanding (MoU). In Ghana, the EPA is designated as the national entity for the preparation of Ghana's national GHG inventory. The MESTI is responsible for the official approval and endorsement of NIR and onward submission to UNFCCC. The EPA functions as the "coordinating national entity" that works together with several public and private institutions to plan, implement and compile the inventory.

Figure 2: Institutional arrangements for preparation of national GHG inventory

