





Deep-dive into preparation and reporting of results of national GHG inventories under the ETF of the Paris Agreement

Training Workshop for the CBIT-GSP network countries

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Presentation:

Institutional arrangement for national inventory systems (NIS) following the MPGs and sustainable systems for data collection





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Provisions of MPGs

3. Time series (Para 57-58)

I. National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases

A. Definitions (17) B. National circumstances and institutional arrangements (18-19) C. Methods 1. Methodologies, parameters and data (20-24) 2. Key category analysis (25) 3. Time-series consistency and recalculations (26-28) 4. Uncertainty assessment (29) 5. Assessment of completeness (30-33) 6. Quality assurance/quality control (34-36) D. Metrics (37) E. Reporting guidance (38) 1.Information on methods and cross-cutting elements (39-46) 2. Sectors and gases (47-56)

Provisions of MPGs

I. National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases

B. National circumstances and institutional arrangements (18-19)

Relevant provisions in MPGs

Each Party **should** implement and maintain national inventory arrangements....

 national inventory arrangements can vary by Party depending on their national circumstances and change over time. Each Party **shall** report on the following functions related to inventory planning, preparation and management:

- Its national entity or national focal point with overall responsibility for the national inventory;
- Its **inventory preparation process**, including division of specific responsibilities of institutions participating in the inventory preparation...
- Its archiving of all information for the reported time series, including all disaggregated emission factors and activity data, all documentation about generating and aggregating data, including quality assurance/quality control (QA/QC), review results and planned inventory improvements;
- Its processes for the official consideration and approval of the inventory.

Institutional arrangements

• Institutional arrangements: institutional arrangements are the policies, systems, and processes that organisations use to legislate, plan and manage their activities efficiently and to effectively coordinate with others in order to fulfil their mandate.



What is the purpose of institutional arrangements?

PURPOSE: GHG inventory arrangements that support the sustained updating and maintenance of high quality and continuously improving national GHG inventories.

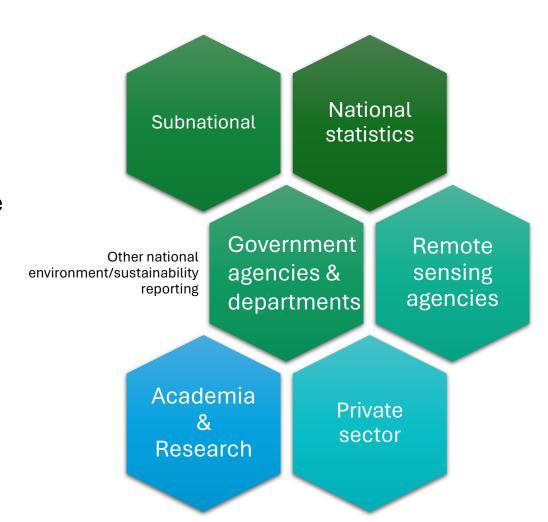


- Enhanced reporting requirements are met
- Quality of reports is continuously improved

A sustainable process for updating, quality and continuous improvement is an important aspect of institutional arrangements.

Why we need Institutional arrangements?

 Institutional arrangements include the interactions between these organizations that are involved with the GHG inventory inputs, compilation processes, and outputs.



Defining institutional arrangements

- There is no one-size-fits-all model for institutional arrangements.
- Need to be designed and tailored to national circumstances.



UK GHG inventory objectives

Objective	Gases	Sectors and categories	Geographical resolution	Temporal resolution of estimates	Time series span	Reporting frequency	Reporting formats
UNFCCC: Annual Reporting	N2O, IPPU, Fluorinated AFOLL	Energy, IPPU, AFOLU, Waste	UK + Overseas Territories	Annual estimates	Yearly values from 1990 until two years prior to current calendar year	Annual	NIR and CRF
National Statistics Environmental Accounts							Environmental Accounts
EU Monitoring Mechanism Regulation			Regulated installations within mainland UK				NIR and CRF
National Carbon Budgets			UK				Carbon budget
UNFCCC: Biennial Report			UK + Overseas Territories			Biennial	CRF: Summary Table 2
UNFCCC: National Communication						Every four year	
UNFCCC: Nationally Determined Contributions						5 years	CRF: Summary Table 2

Source: IPCC 2019 Refinements

Structuring of arrangements

Illustrative example of GHG inventory institutional arrangements structuring

- The system structure diagram can help to understand and formalize the roles and responsibilities of the institutions involved.
- A diagram can provide an overview of the structure that is easy for the reader to understand.

Steering Committee

GHG inventory users and data providers engaged in steering the GHG inventory work programme

Single National Entity (SNE):

Government Ministry or agency responsible for the work programme, outputs and reporting

Management/coordination:

Compiling reporting material, managing workplans and supporting data gathering and compilation experts.

Management of general QA/QC and improvement function.

Compilation (sector) experts:

Energy, IPPU, Agriculture, Forestry and Other Land Use and Waste).

Note: Sub-divide into separate boxes if expertise is in different organisations/institutions

Data Providers:

A summary of the data providers and the datasets.

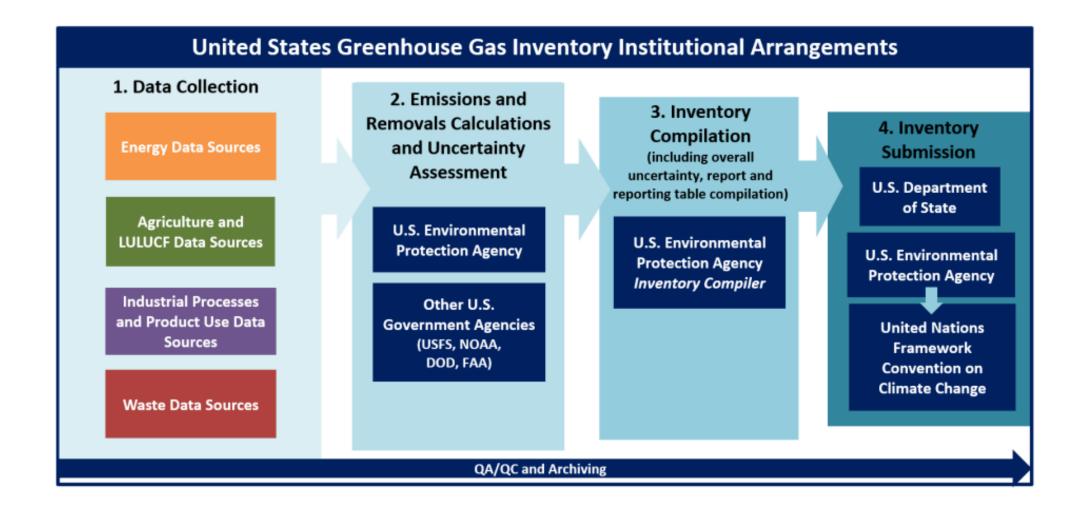
Reference the detailed list of data providers.

Sources: IPCC 2019 Refinements

Inventory Approval and Submission MESTI (Minister) National Designated GHG Inventory Entity (Environmental Protection Agency - Executive Director) **Inventory Coordinator** (Climate Change Unit, EPA - UNFCCC Focal Point) **Inventory Compiler** (Climate Change Unit, EPA) Lead, Uncertainty Management Lead, QA/QC Lead, Documentation & Archiving (Dept. of Statistics, University of Ghana) (Dept. of Mathematics, KNUST) (Environmental Data and Information Dept. EPA) **Energy Sector team IPPU Sector team AFOLU Sector team** Waste Sector team Lead, Waste Sector Lead, IPPU Sector Lead, Energy Sector Lead. Land MID, EPA REDD+ Secretariat, FC Built Environment Dept. **Energy Commission EPA** Mobile Combustion Mineral, Metal Solid Waste Disposal Lead, Agriculture **Environmental Quality** Industry CSD, Ministry of Agric Built Environment, Dept., EPA Climate Change Unit, Dept., EPA **EPA** Stationery Wastewater Member, Land ODS, HFC Combustion, Energy Manufacturing Industry RMSC, FC Consumption Commission Dept, EPA Incineration and Open Ozone Unit, EPA Member, Land Fugitive Emission, Burning FRNR, KNUST Petroliuem Dept., EPA Built Environment, Dept. Others MID, EPA **Biological Treatment of** Member, Livestock Mobile combustion, Soild waste Animal Research Ministry of Transport Zoomlion Ghana Limited Electricity Cross-cutting issues, Member, Aggregated Generation. Climate Change Unit., Sources, UN-INRA Volta River Authority EPA Member, Land CERSGIS, Legon Data Exchange Member, Land FORIG, SNV Data Exchange Data Exchange Data Exchange Public (Ghana Statistical Service), Private data owners or providers and international data sources (FAO, IEA, UN-STAT, OECD, World Bank, UNIDO, WRI & UNFCC)

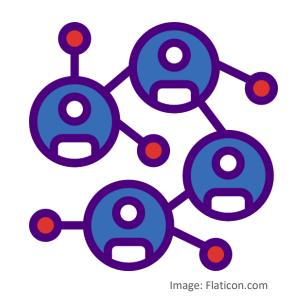
Source: Ghana's Fifth National Greenhouse Gas Inventory 2021 National Greenhouse Gas Emissions Report May

US National Inventory Arrangements



Roles and responsibilities (1/2)

- There are many actors and stakeholders involved in the inputs, processes and results of the inventory.
- In some countries, a single organization can play more than one role.
- Understanding the interests, contributions and involvement of these actors and stakeholders can help establish a long-term and well-functioning system.



Each stakeholder involved in the system may need some type of terms of reference to
facilitate their participation, which should specify the roles and responsibilities of each party
in the system framework and the timeline for carrying out their work.

Roles and responsibilities (2/2)

- It should be made clear that while work is the responsibility of individuals, it is the institutions/organizations that are ultimately responsible and therefore they must ensure that staff are properly trained to ensure ongoing work.
- The process of engaging actors and stakeholders is likely to vary across sectors within the country.
- Developing and maintaining lists of stakeholders, their roles, responsibilities, and interests are fairly common, so it suggests implementing this information in a tabular format.

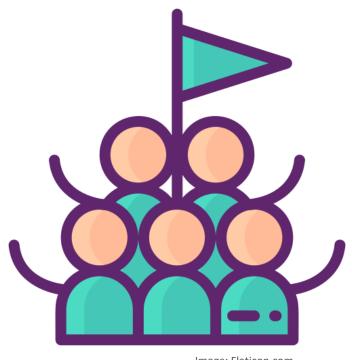


Image: Flaticon.com

Example of metadata for tracking GHG inventory stakeholders

sectoral workshops, compilation and reporting activities, consultations, and reviews.

1. Name 2. Organization 3. Contact 4. Mandate 6. Sector 7. Role 5. Engagement activities 1. Name: stakeholders name. 2. Organisation: organisation affiliation. 3. Contact: contact details. 4. Mandate: mandate/terms of reference to contribute to the GHG inventory (if any). 5. Engagement activities (Activities that the stakeholder has been regularly involved with e.g. training, workshops, regular meetings attended, data provision etc.). 6. Sector: sectors/categories involved with (any particular sector or category involvement).

7. Role: type of involvement (e.g. as a data provider, data user, compilation expert, coordinators, data gathering, QA/QC, review, steering committee meetings, training,





Thank you for your attention!

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