



## Kenya training on the preparation of national GHG inventories under the ETF of the Paris Agreement: introductory webinar

Part 1: 08 March 2024

Presentation:
Institutional Arrangements

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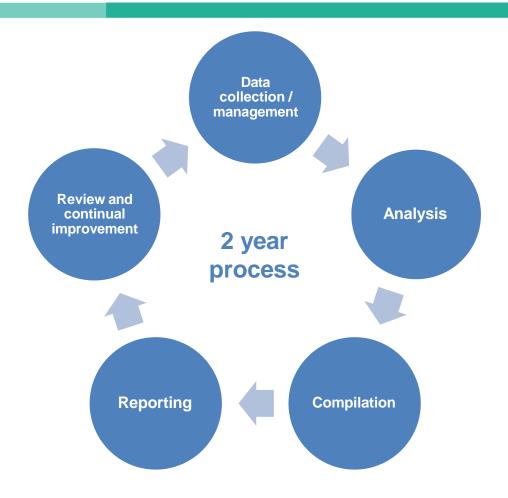




#### **BACKGROUND**

- Transparency of climate action and support, through the ETF, is a key mechanism for:
  - Building mutual trust and confidence;
  - Facilitating implementation and raising ambition of climate action.

 It requires a continuous process of improvement, collection, processing, analysis, compilation and reporting and review of data.



#### **RELEVANT PROVISIONS IN THE MPGS**

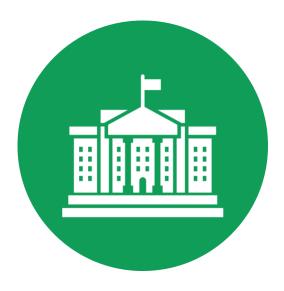
> Each chapter includes section on national circumstances and institutional arrangements

#### Chapter II. National inventory report of anthropogenic emissions by sources and removals by sinks of GHG

- Each Party <u>should</u> 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:
  - (a) Its national entity or national focal point with overall responsibility for the national inventory;
  - (b) Its inventory preparation process, including division of specific responsibilities of institutions participating in the inventory preparation...
  - (c) 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;
  - (d) 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.



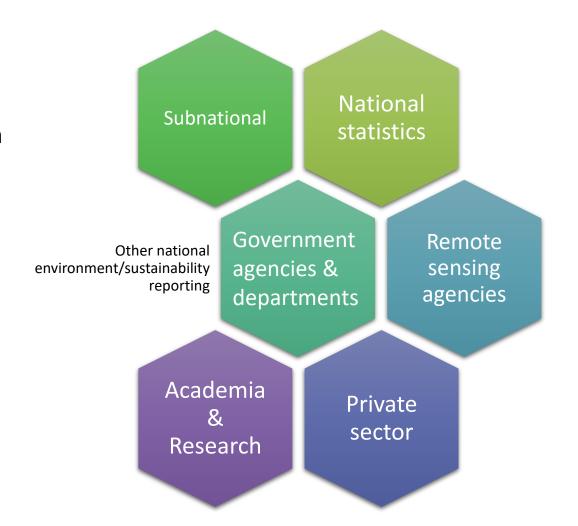
- Enhanced reporting requirements are met
- Quality of reports is continuously improved

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



#### Why we need Institutional arrangements?

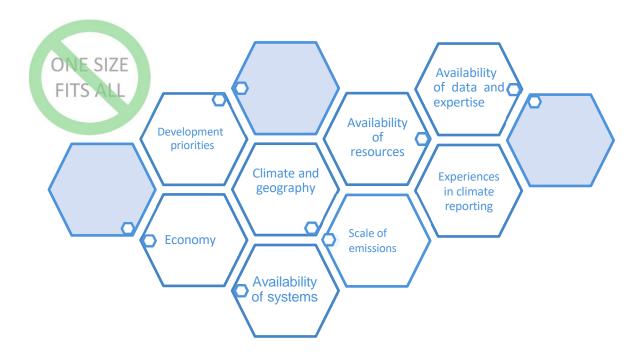
 Institutional arrangements include the interactions between these organizations that are involved with the GHG inventory inputs, compilation processes, and outputs.





#### DEFINING INSTITUTIONAL ARRANGEMENTS

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



#### **ESTABLISHING OBJECTIVES**



- The inventory will probably have to respond to different objectives depending on the stakeholders involved.
- Defining the objectives of the inventory could help to identify what inputs, capacities and outputs are required by stakeholders, as well as roles and responsibilities, scope of work and timelines of the inventory cycle.
- The probably clearest goal is to fulfill the country's international commitments to the UNFCCC to provide information on its climate action and contribution to avoiding temperature increases. There may also be domestic targets for the country.
- It is suggested to include information in a tabular format that compiles basic information of each objective, the interested parties, the date of delivery, format of the report, reference to legal acts, etc.

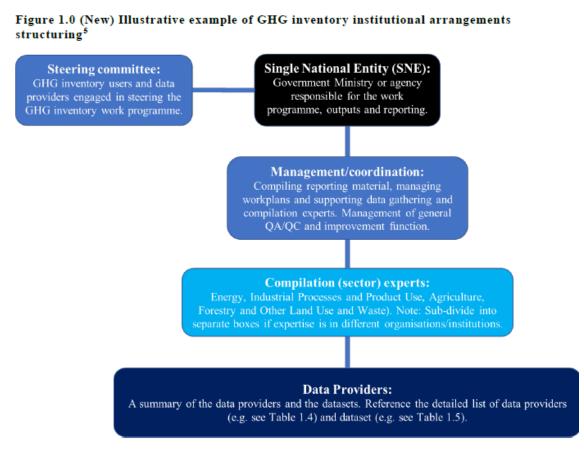
#### Inventory Objectives - Example

TABLE 1.2 (New) ILLUSTRATIVE TABLE CONSTRUCTED AROUND UK GHG INVENTORY OBJECTIVES											
Objective	Gases	Sectors & categories	Geographical resolution	Temporal resolution of estimates	Timeseries span	Reporting frequency	Reporting formats				
UNFCCC: Annual Reporting <sup>[a]</sup>	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, Fluorinated gases, Precursors (SO <sub>2</sub> , NOx, CO, NMVOC)	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 <sup>[f]</sup>				
National Statistics Environmental Accounts <sup>[o]</sup>							Environmental Accounts <sup>[o]</sup>				
EU Monitoring Mechanism Regulation <sup>[c]</sup>			Regulated installations within mainland UK				NIR and CRF				
National Carbon Budgets <sup>[d]</sup>	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, Fluorinated gases		UK				Carbon Budget				
UNFCCC: Biennial Report			UK + Overseas Territories			Biennial	CRF: Summary table 2				
UNFCCC: National Communication						Every four year					
UNFCCC: Nationally Determined Contributions <sup>[b]</sup>						5 Years	CRF: Summary table 2				

- [a] See decision 24/CP.19 on Revision of the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention. (Available at: https://unfccc.int/documents/8105).
- [b] Article 4(9) of the Paris Agreement: http://unfccc.int/files/essential\_background/convention/application/pdf/english\_paris\_agreement.pdf.
- [c] UK reporting commitments to the EU valid from 08/07/2013: Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC. (Available at: https://rod.eionet.europa.eu/instruments/652).
- [d] https://www.gov.uk/guidance/carbon-budgets.
- [e] https://www.ons.gov.uk/economy/environmentalaccounts.
- [f] NIR = National Inventory Report, CRF = Common Reporting Format.

#### STRUCTURING OF ARRANGEMENTS

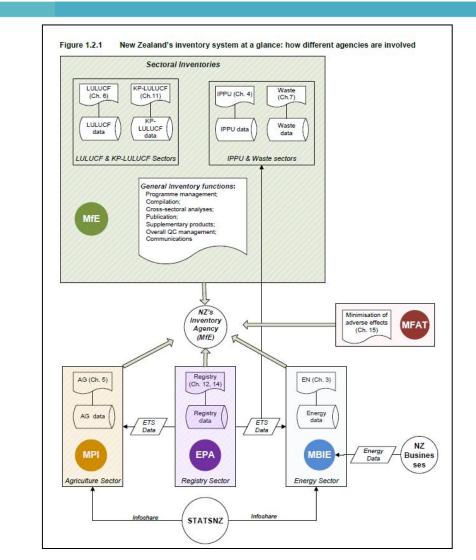
- The system structure diagram can help to understand and formalize the roles and responsibilities of the institutions involved.
- A diagram can provide an overview of the structure that is easy for the reader to understand.
- The general description of the necessary roles, responsibilities and competencies of the institutions involved should be included in section 1.4.1.3 below.



Sources: IPCC 2019 Refinements

#### Structures of national systems

- In general, national systems require a coordinating organization and implementing organizations.
- Systems can be structured in a variety of ways:
  - Centralized / decentralized / mixed
  - Internalized / outsourced
  - Single entity / multiple entities
  - Integrated / separate



Gas Zealand's Greenhouse Inventory 1990–2021. Wellington: Ministry for the Environment

#### Institutional Arrangements – Example Ghana

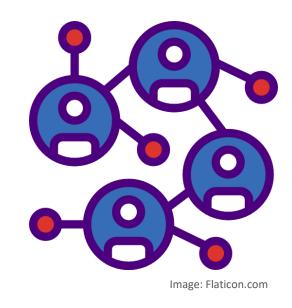
National Designated GHG Inventory Entity (Environmental Protection Agency - Executive Director) **Inventory Coordinator** (Climate Change Unit, EPA - UNFCCC Focal Point) **Inventory Compiler** (Climate Change Unit, EPA) Lead, Uncertainty Management Lead, QA/QC Lead, Documentation & Archiving (Dept. of Mathematics, KNUST) (Dept. of Statistics, University of Ghana) (Environmental Data and Information Dept. EPA) **Energy Sector team IPPU Sector team AFOLU Sector team** Waste Sector team Lead, IPPU Sector Lead, Waste Sector Lead, Energy Sector Lead, Land REDD+ Secretariat, FC Built Environment Dept. **Energy Commission** MID, EPA **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 Commission Consumption Dept, EPA Incineration and Open Ozone Unit, EPA Member, Land Fugitive Emission, FRNR, KNUST Petroliuem Dept., EPA Built Environment, Dept. Others MID, EPA Member, Livestock Biological Treatment of Mobile combustion, Animal Research Soild waste 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)

Inventory Approval and Submission MESTI (Minister)

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

## 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.

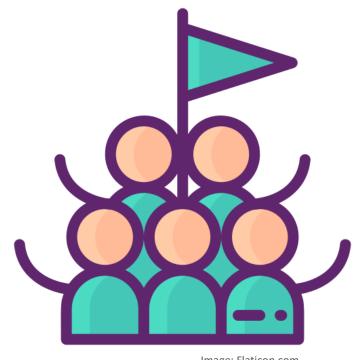


Image: Flaticon.com

# Source: IPCC 2019 Refinement

#### Example of metadata to document stakeholders

#### TABLE 1.4 (NEW) EXAMPLES OF METADATA FOR TRACKING GHG INVENTORY STAKEHOLDERS

1.Name	2.Organisation	3.Contact	4.Mandate	5.Engagement Activities	6.Sector	7.Role

1. Name: stakeholders name.

2. Organisation: organisation affiliation.

Contact: contact details.

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

## National single entity

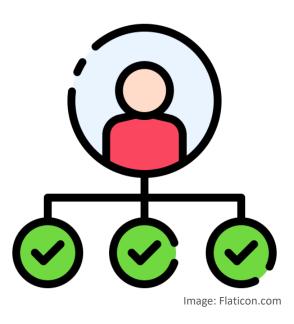
- The term is commonly used to refer to the leading organization with the responsibility of submitting the official inventory.
- It is often aligned or the same organization as the national focal point to the UNFCCC.
- The entity's role is usually assumed by a ministry with a mandate to administer climate change reports.
- A key role within the entity is to oversee inventory activities.
- A designated focal point coordinates the activities needed to ensure that products are prepared with sufficient quality to meet country commitments.
- The entity's role is sometimes delegated by a ministry to a climate change, environmental or statistical agency with the technical capacity to prepare national reports.

#### Steering Committee or Working Group

- Countries may find it useful to establish a working group or steering committee to participate in the process of approving inventory developments and estimates.
- This group includes those actors or stakeholders within the inventory approval process.
- The group may consist of actors and stakeholders representing political decision-makers and data providers.
- The establishment of a group or committee could provide the national entity with a space to coordinate and communicate inventory activities and ensure independent data provision and analysis.
- Finally, this stakeholder group can also be convened to support the prioritization and implementation of inventory enhancements.

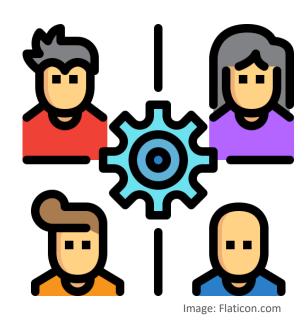
## **Inventory Coordinator**

- This section should include a description of the inventory coordinating entity, only if this entity is different from the national entity.
- Some types of institutions that could serve as inventory coordinators include:
  - Ministries
  - National institutes or agencies
  - Private companies
  - Universities
  - Other nongovernmental organizations



#### Sectoral technical equipment

- They are those teams that develop specific sectors or categories within the inventory.
- These teams are required to understand the requirements for inventory quality, IPCC methods, inventory processes, and national data sets.
- It is advantageous for experts to have a clear understanding of the international reporting and review processes to the UNFCCC that can be developed through participation in peer review activities.
- Depending on national circumstances, sectoral technical teams could be in the same national entity or in other organizations, universities, institutes or agencies.



#### Data providers

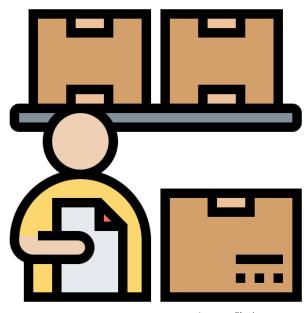
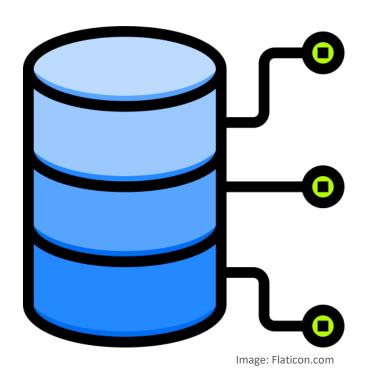


Image: Flaticon.com

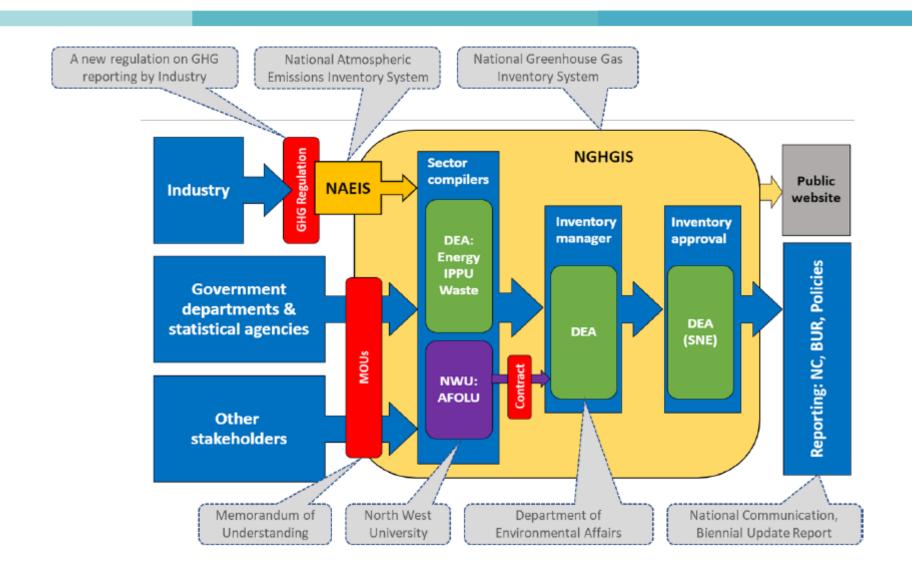
- Data providers are all those organizations that generate and provide data for inventory, directly or indirectly.
- Their roles and responsibilities must be documented.
- Where possible, formal agreements should be established with them.
- These organizations do not have direct involvement in compiling the inventory, but given their relevance, they are of importance to the system.

#### Dataset and its flows



- There are numerous datasets for inventory development and many data providers that provide them.
- A diagram of the data flow from the initial data collection to the final report should be included, in addition to the documents and data providers most important to the inventory compilation process.
- More detailed data flows for specific data sets, sectors or categories can help document the process, improve transparency and build institutional memory.

#### Example of South Africa Data Flow Diagram



Source: GHG National Inventory Report South Africa 2000–2015

#### Agreements with data providers

- A data provision agreement defines what data, from whom, to whom and when will be provided for inventory compilation. Ideally, it is organized between the national entity and the data providers.
- An agreement can be beneficial for both the inventory compilers and the data providers themselves, ensuring data provision in the future.
- An agreement can help data provider organizations by establishing a formal recognition that can promote allocation resources within the same organization to deliver high-quality data on time.
- There are many formats of agreements. Where national laws exist for the provision of data, they may be referred to. Where data provision is less formal, agreements may act as an informal agreement between the parties.

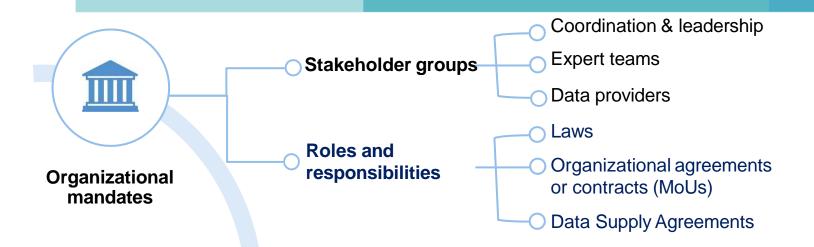
#### Key Components of Institutional Arrangements





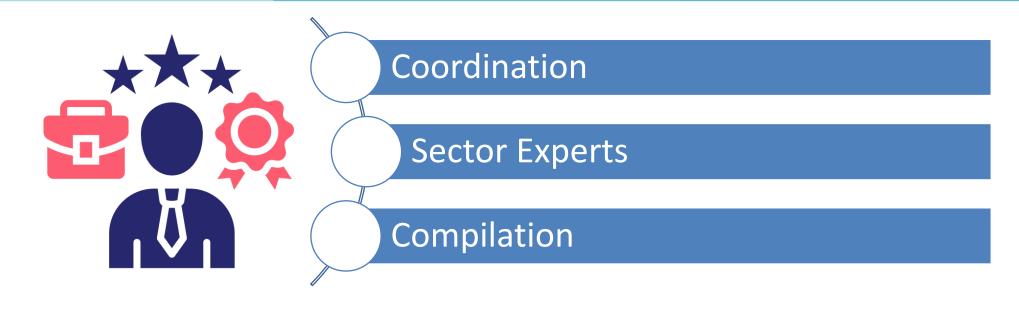
- These components span a range of organizations (government, academia, private sector, etc.)
- Developing these components is a process of continual, gradual improvement tracked through a welldeveloped improvement plan.

#### Organizational Mandates



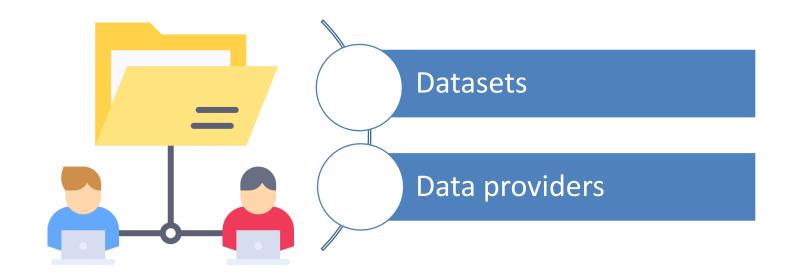
- There are many actors and stakeholders involved in the inputs, processes and results of the inventory.
- In some countries, a single organization can play more than one role.
- Understanding the interests, contributions and involvement of these actors and stakeholders can help establish a long-term and well-functioning system.
- Specify the roles and responsibilities of each stakeholder and the timeline for carrying out their work.

## Experts



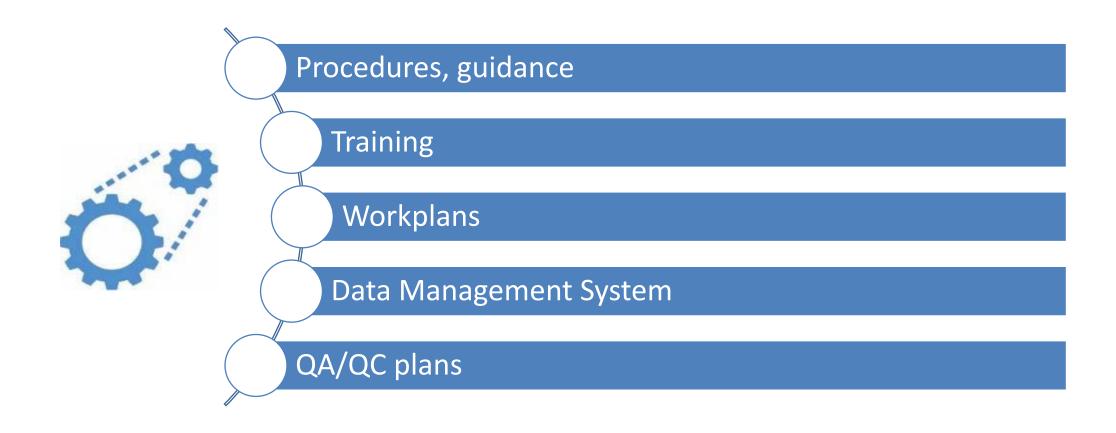
- A team of *national* experts that:
  - Are capable of regularly gathering and processing data;
  - Have suitable expertise and access to relevant training materials;
  - Progressively rely less on external consultants;
- Effective recruitment, retention and succession procedures should be put in place (i.e. to buffer high turnover);
- These aspects depend on suitable organizational mandates

#### Data Flows



- Reliable, regular data flows are essential that;
  - Define data needs and data uses;
  - Manage the delivery of the required datasets from a range of data providers on a regular basis;
  - Continuously improve data and reducing uncertainty.

## Systems and tools



## Stakeholder engagement



Consultations

**GHG** Events and Activities

Websites/data visualization

Communication to decision makers





## Thank you for your attention!

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