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Institutional arrangements for the preparation of national GHG inventories (BTR) under the ETF of the Paris Agreement: Pacific Region

Venue: Crown Beach Resort & Spa,
Rarotonga, Cook Islands
Date: 25-28 March 2025

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Overview

- Background
- Relevant provisions in the MPGS:– setting of Institutional Arrangements and Reporting
- Reporting of Institutional Arrangements in the MPGS
- What are Institutional Arrangements and why they are important in GHG inventory compilation
- Structuring of Institutional Arrangements/ Roles and responsibilities
- Establishing Institutional Arrangements
- Key elements of Institutional Arrangements

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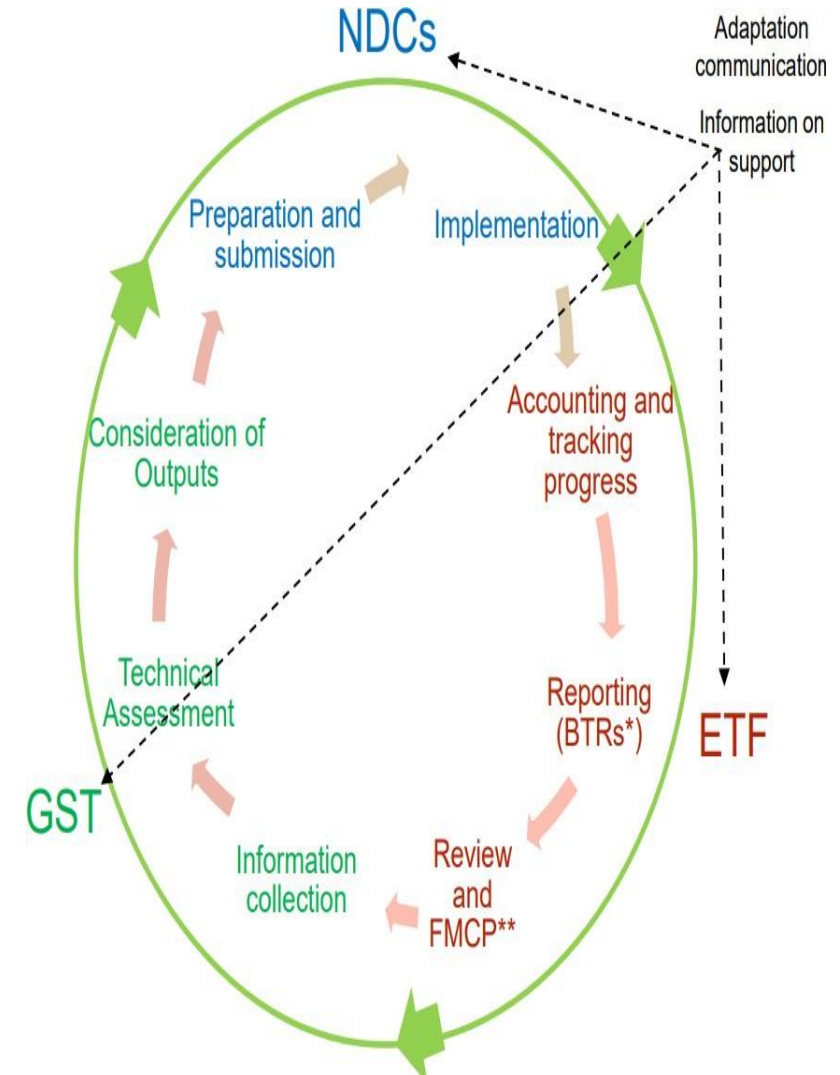


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BACKGROUND: Enhancing institutional arrangements under the ETF – key principle considerations

- The Paris Agreement ETF introduced enhanced scope and depth of reporting for developing countries
- Strong institutional arrangements enable countries to provide reliable, comprehensive and regularly updated information, and are essential to ensure improvements in reporting on a sustainable basis
- The establishment of the ETF necessitated the need to establish legal frameworks, technical and institutional capacity for monitoring, reporting and verification of greenhouse gases,
- This means that many developing country governments have to upscale reporting of climate actions including preparation and communication of:
 - ❖ Successive NDCs every 5 years; and
 - ❖ Biennial transparency reports every 2 years;
- The current institutional arrangements can serve as a foundation upon which to build for ETF implementation.

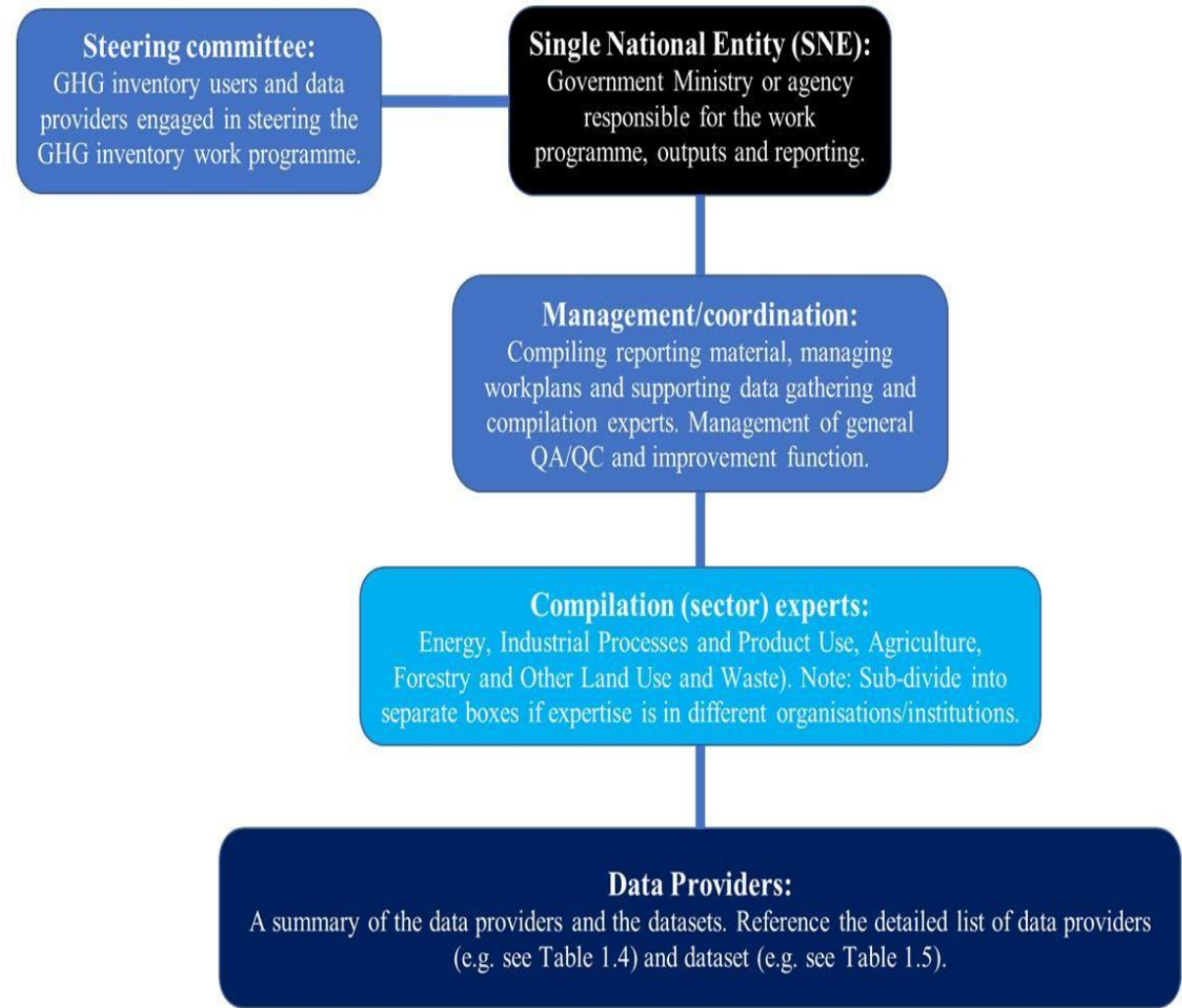


RELEVANT PROVISIONS IN THE MPGS

➤ Each chapter includes section on national circumstances and institutional arrangements

Para 18. Each Party **should implement and maintain national inventory arrangements**, including institutional, legal and procedural arrangements that allow for continuous estimation, compilation and timely reporting of the national inventory in accordance with these MPGs.

National inventory arrangements may vary according to each Party's **national preferences and circumstances**, and change over time.



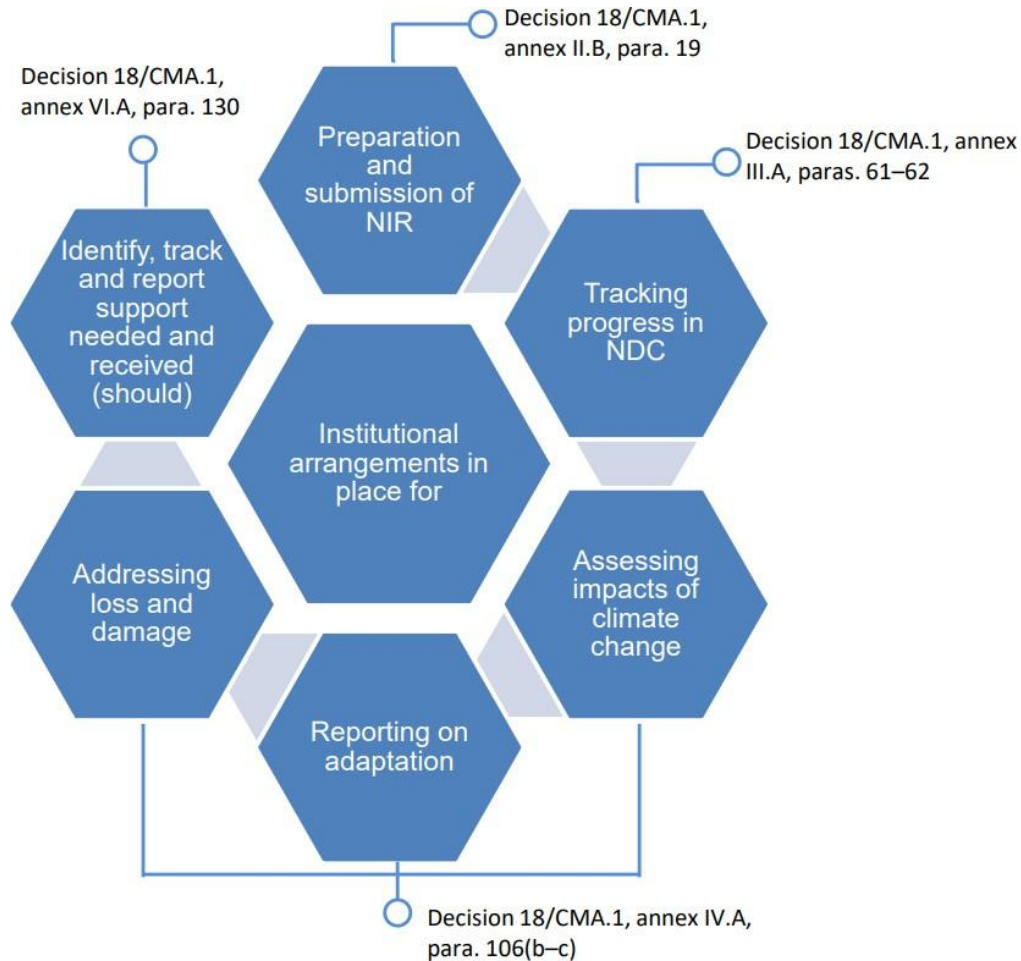
RELEVANT PROVISIONS IN THE MPGS

➤ Each chapter includes section on national circumstances and institutional arrangements

Para 19. Each Party **shall** report on the following functions related to the planning, preparation and management of the inventory:

- a. The **national entity** with overall responsibility for the national inventory;
- b. The **process of preparing the inventory**, including the sharing of specific responsibilities among institutions involved in the inventory process, to ensure that sufficient activity data collection, choice and development of methods, emission factors and other parameters are in line with IPCC guidelines;
- c. **Archiving of all information** for the reporting time series, including all emission factors and disaggregated activity data, all documentation related to data generation and aggregation, including CA/CC, the results of reviews and planned improvements to the inventory;
- d. The processes for the **official consideration and approval** of the inventory.

Reporting on Institutional Arrangements under the ETF



- Important to show how a range of stakeholders come together and work together across transparency themes (organizational charts).
- Demonstrate what efforts are being made to enhance the sustainability of institutional arrangements.
- Demonstrate how institutional arrangements are embedded in or interact with core national strategy development and implementation functions as well as other environmental goals and the SDGs.

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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.

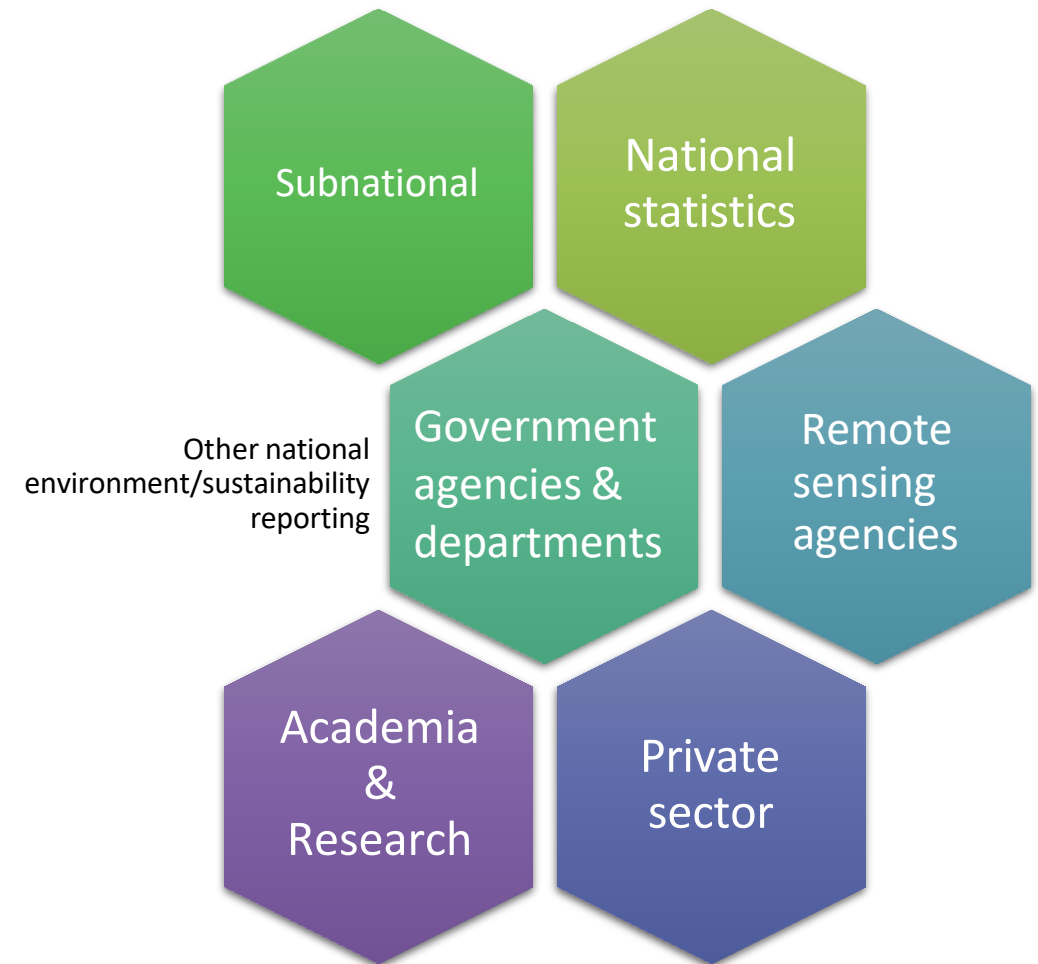


- Enhanced reporting requirements are met
- Quality of reports is continuously improved

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

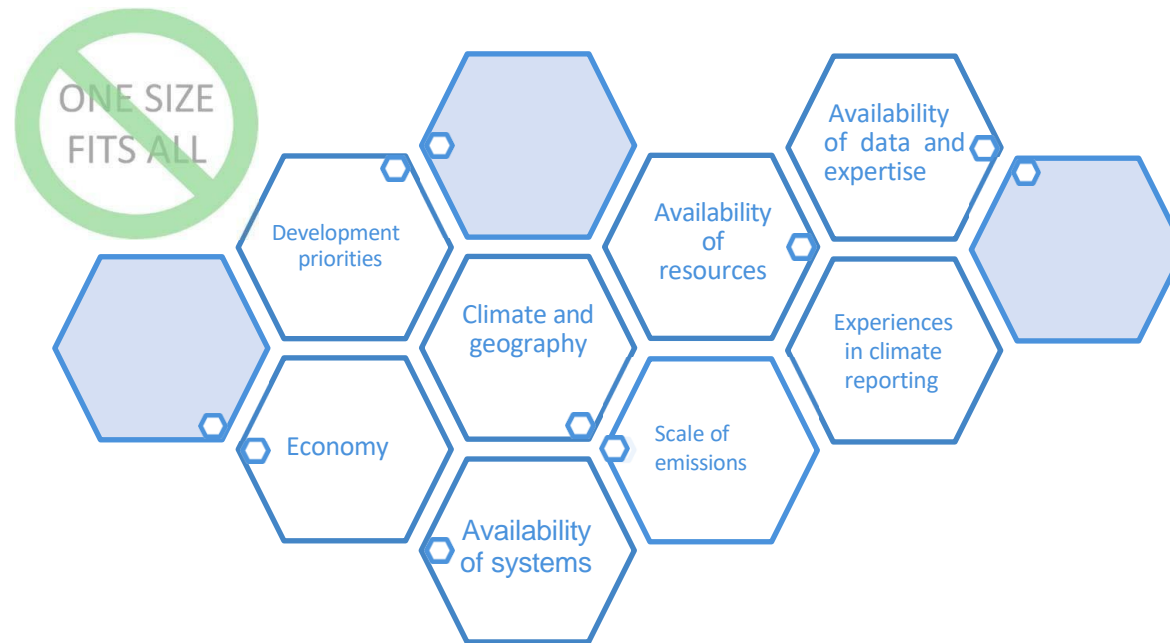
Why we need Institutional arrangements?

- 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 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 ^[a]	CO ₂ , CH ₄ , N ₂ O, Fluorinated gases, Precursors (SO ₂ , NO _x , 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 ^[f]
National Statistics Environmental Accounts ^[e]			Regulated installations within mainland UK				Environmental Accounts ^[e]
EU Monitoring Mechanism Regulation ^[c]			UK				NIR and CRF
National Carbon Budgets ^[d]			UK + Overseas Territories				Carbon Budget
UNFCCC: Biennial Report	CO ₂ , CH ₄ , N ₂ O, Fluorinated gases		UK + Overseas Territories			Biennial	CRF: Summary table 2
UNFCCC: National Communication						Every four year	
UNFCCC: Nationally Determined Contributions ^[b]						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>.

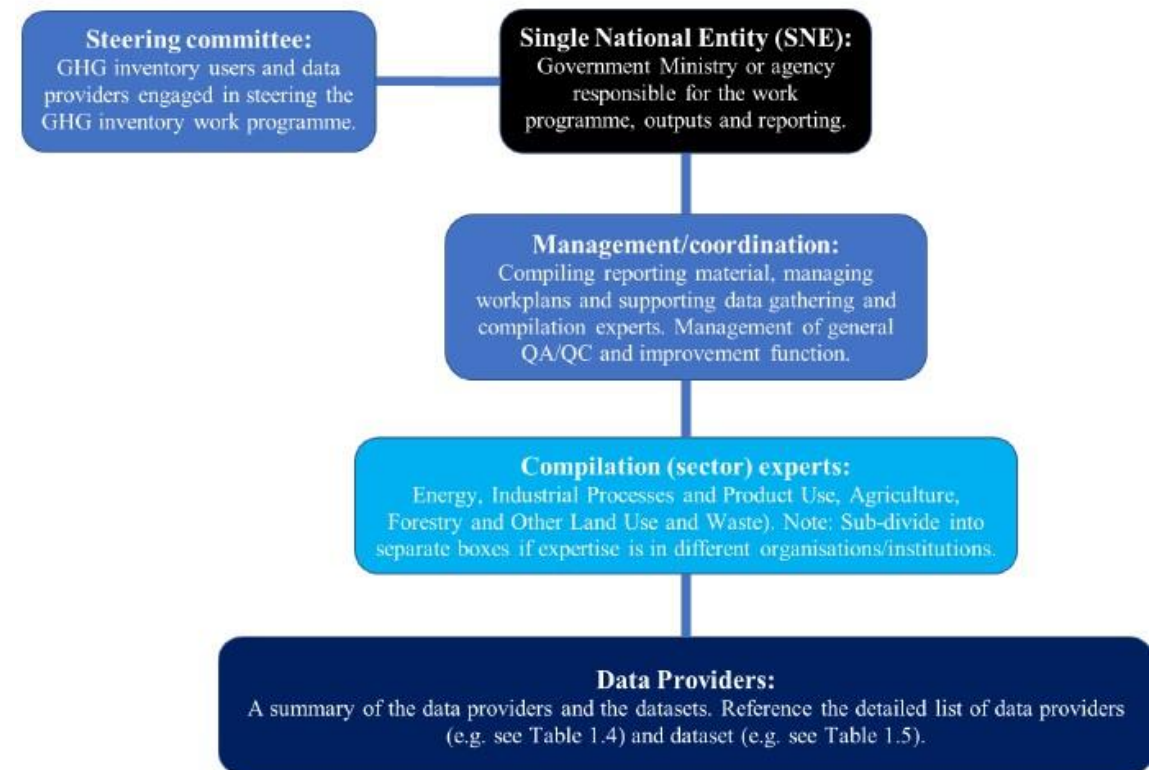
[e] <https://www.ons.gov.uk/economy/environmentalaccounts>.

[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.

Figure 1.0 (New) Illustrative example of GHG inventory institutional arrangements structuring⁵



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

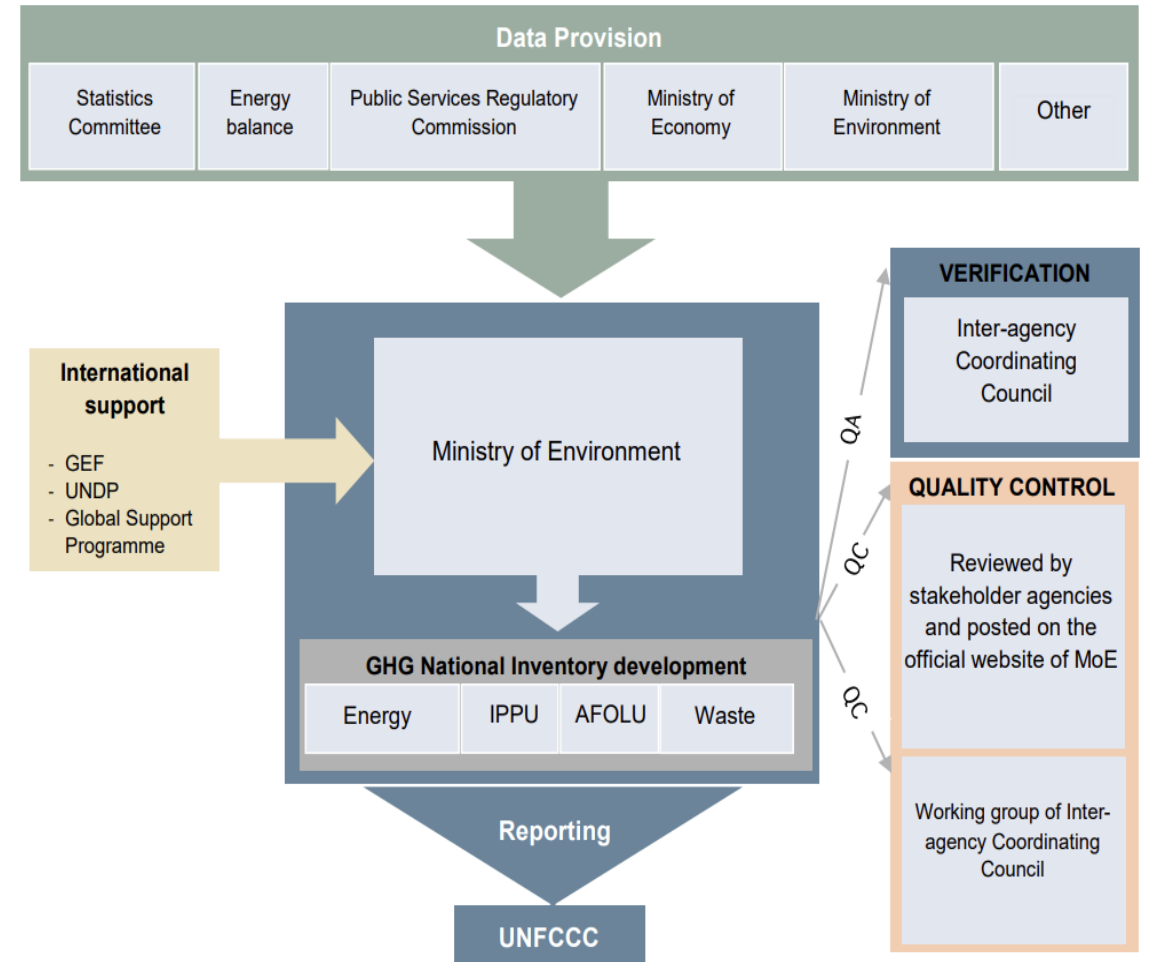
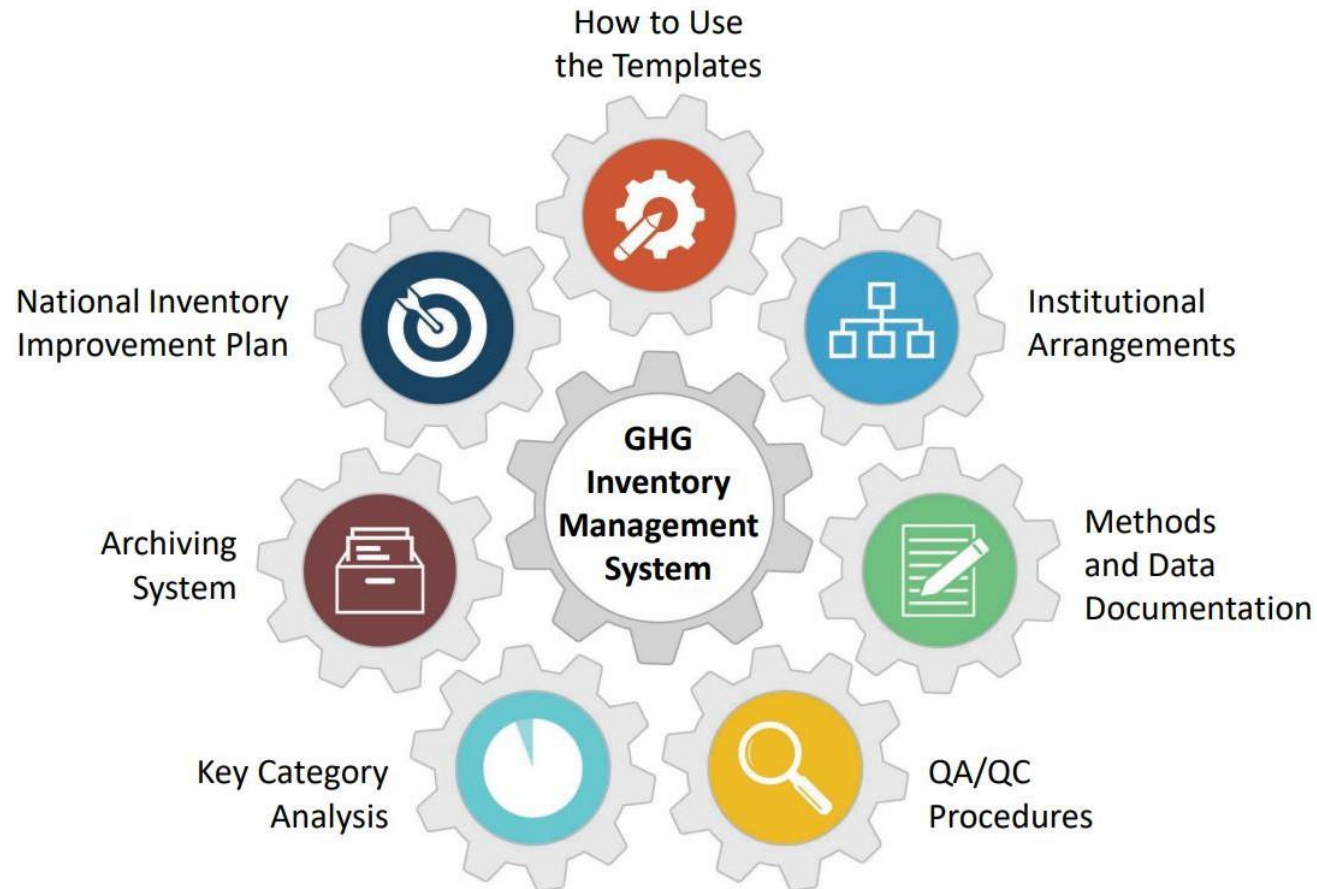


Figure 1.1 Institutional arrangements of GHG Inventory development in Armenia

Identifying Institutional Arrangements



- Do you have a central coordination agency?
- How can existing arrangements be improved and what arrangements might work best for your country?
- What processes do you have already in place?
- Have roles and responsibilities for each source/sector been defined and assigned?

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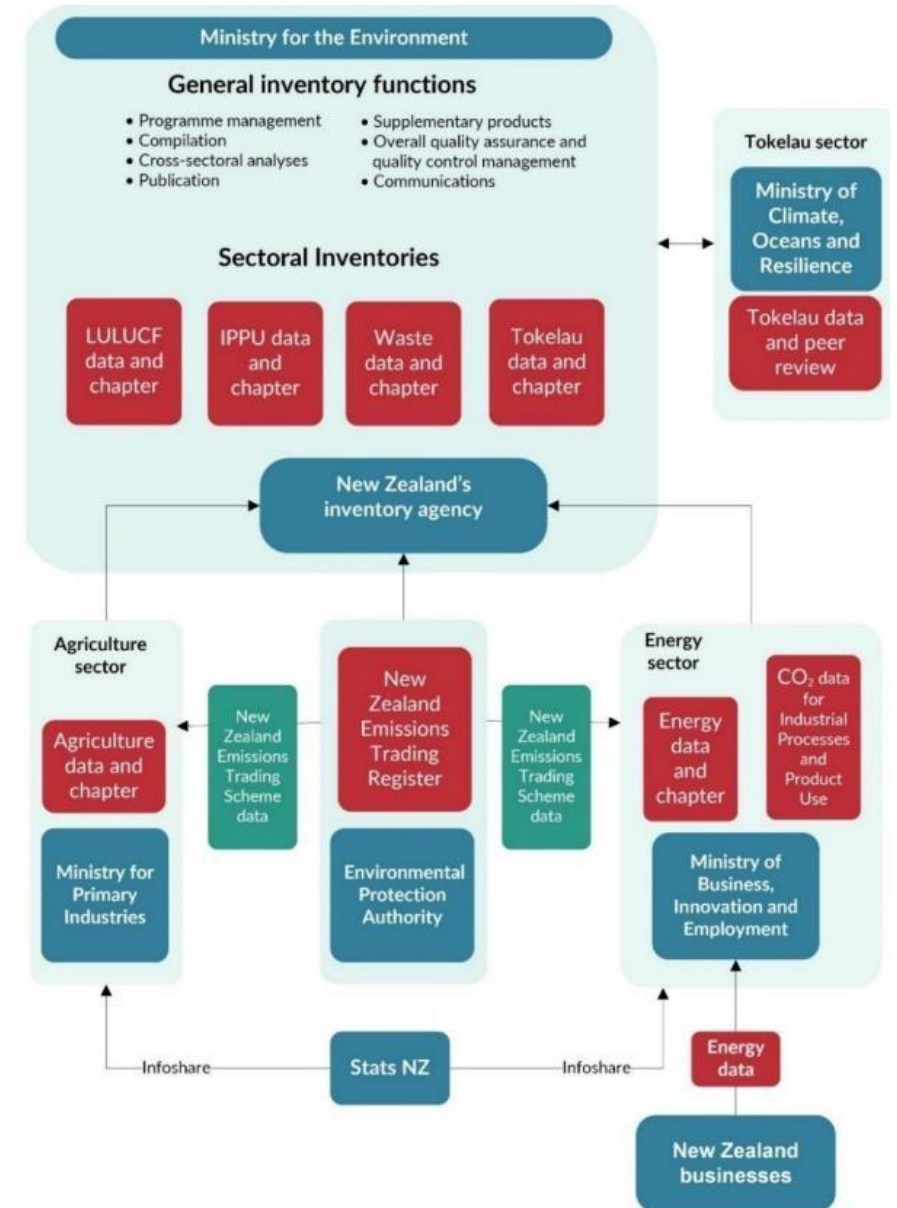
Institutional Arrangements – New Zealand

2.2.1 Gathering existing data

Although the list below is not exhaustive, it provides a starting point for possible sources of country specific data:

- National Statistics Agencies
- Sectoral experts, stakeholder organisations
- Other national experts
- IPCC Emission Factor Database
- Other international experts
- International organisations publishing statistics e.g., United Nations, Eurostat or the International Energy Agency, OECD and the IMF (which maintains international activity as well as economic data)
- Reference libraries (National Libraries)
- Scientific and technical articles in environmental books, journals and reports.
- Universities
- Web search for organisations & specialists
- National Inventory Reports from Parties to the United Nations Framework Convention on Climate Change

[Microsoft Word - V1_Ch2_DataCollection_final_v2.doc \(iges.or.jp\)](#)



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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.

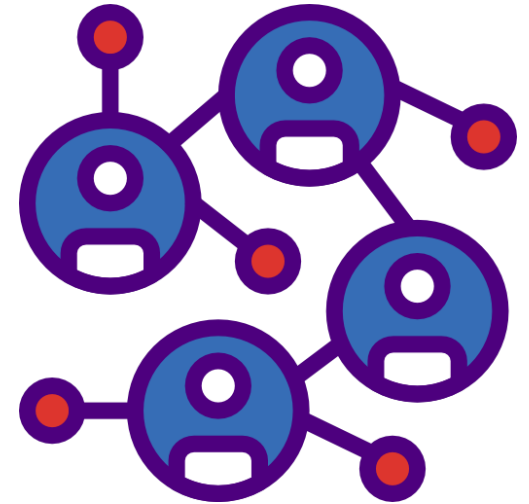


Image: Flaticon.com

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.

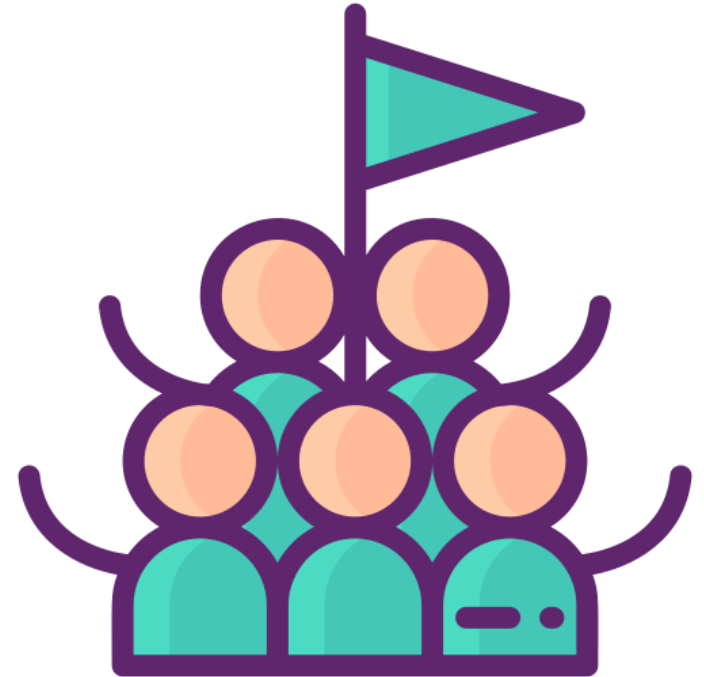


Image: Flaticon.com

Example of metadata 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.
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, 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

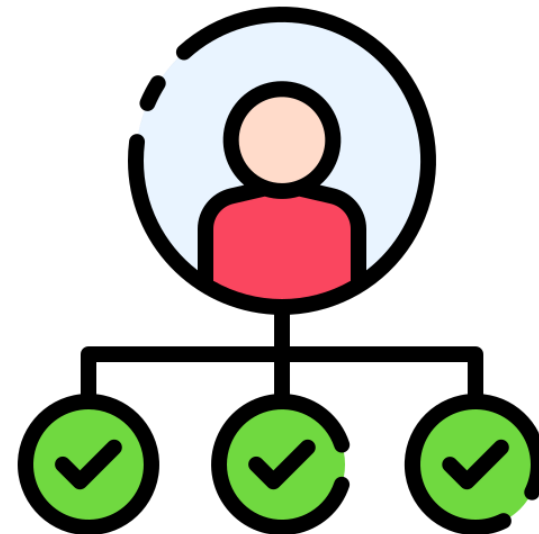


Image: Flaticon.com

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.

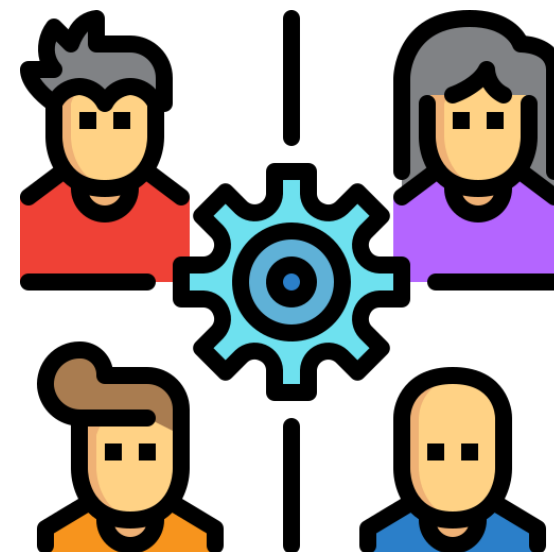


Image: Flaticon.com

Data providers

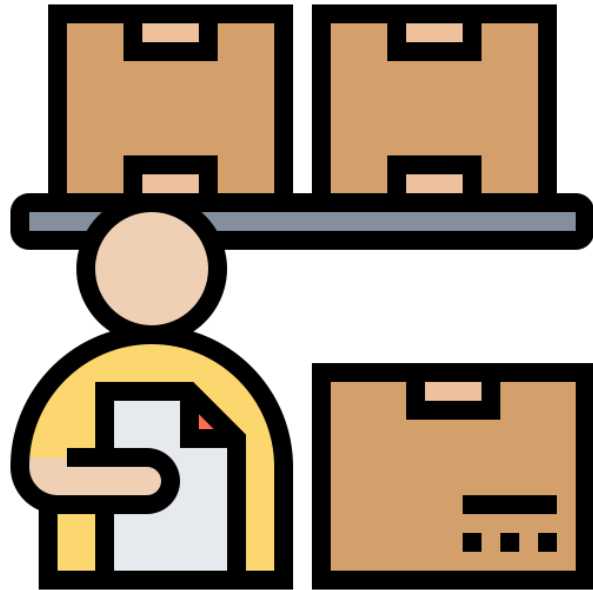


Image: Flaticon.com

- 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

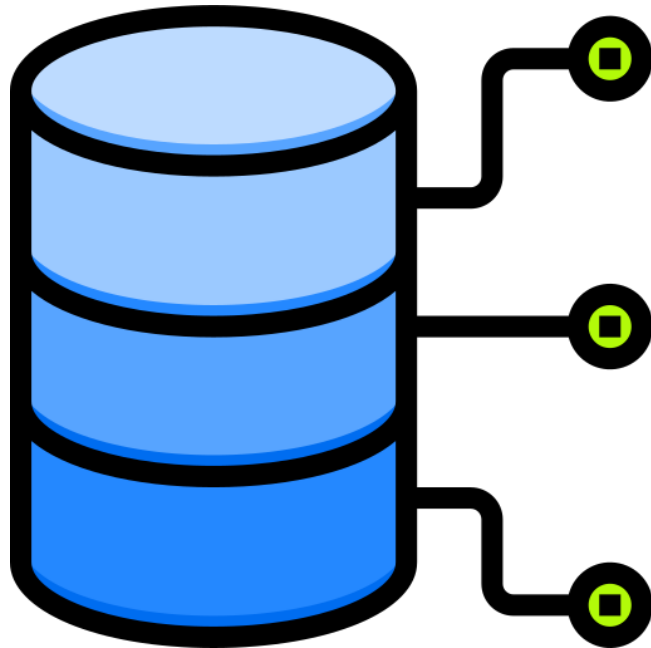
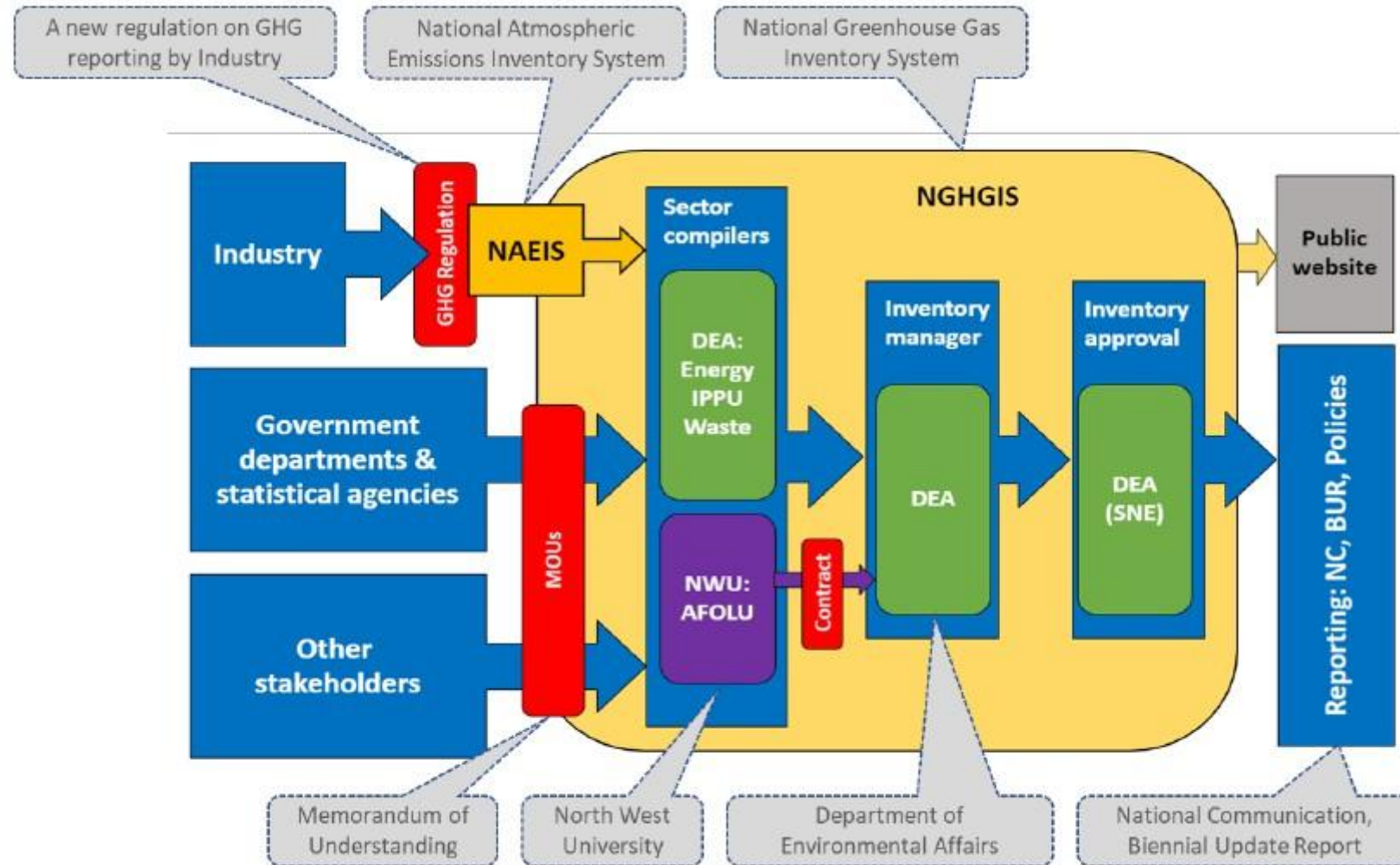


Image: Flaticon.com

- 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



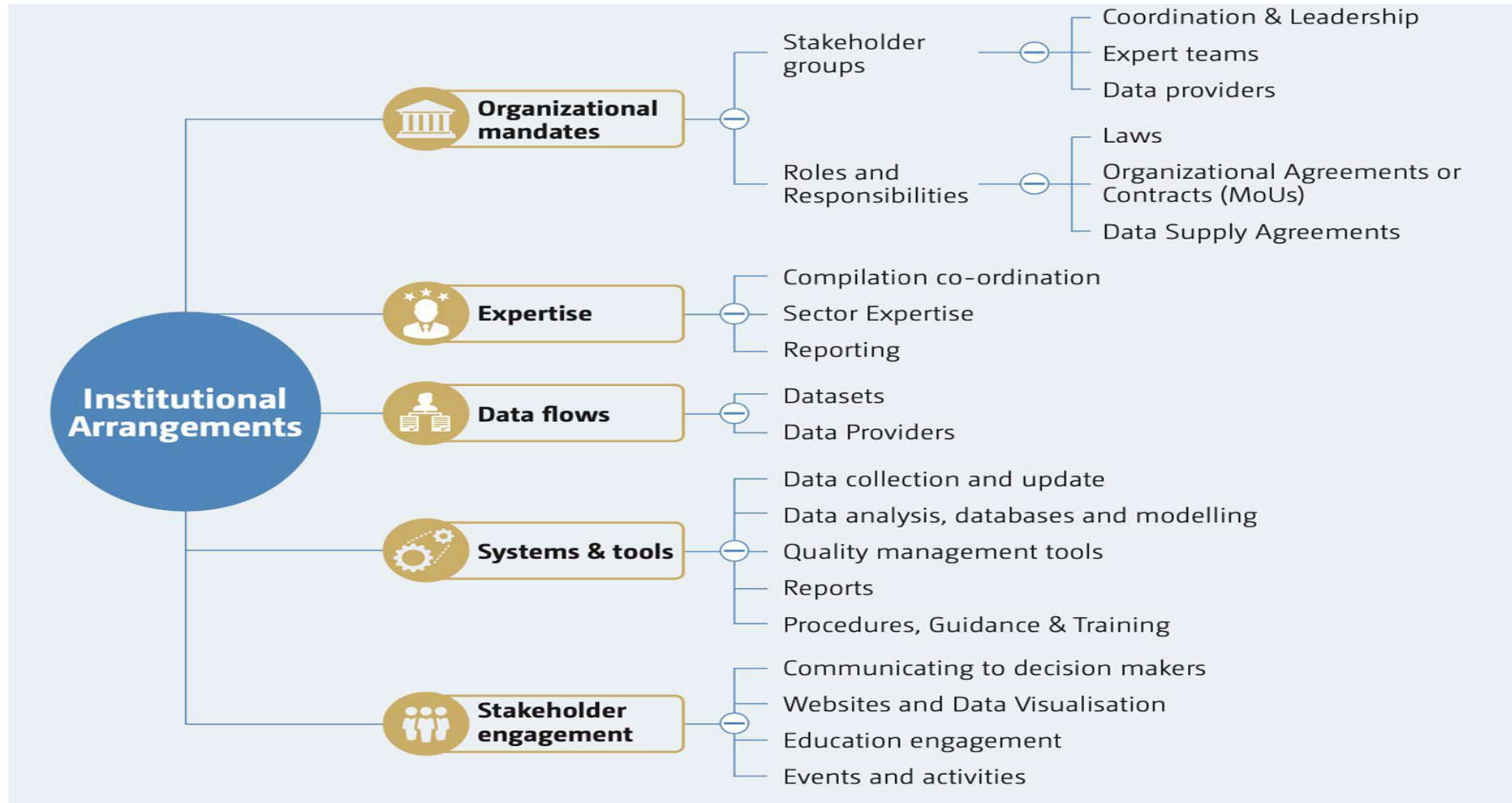
A legal framework to support enactment of laws/policies that mandates climate data collection through an enhanced institutional framework

- A legal framework forms part of the broader national demand for a Climate Change response to implement ETF
- Through climate regulations/law Parties will be able to set up institutions to execute actions in response to climate change. The key among them is setting up the Climate Transparency Unit/Designated National Entity which will execute and support the planning, implementation, and reporting of key climate actions in the country.
- The Climate regulations/law will outline the responsibilities of government ministries, departments and agencies, and local authorities at the national, provincial and district levels with respect to climate change. The concept of co-operation at all levels of state agencies and to respond effectively to climate change.
- The Climate regulations/law will mandate climate data collection through an enhanced institutional framework including data sharing agreements/MoU

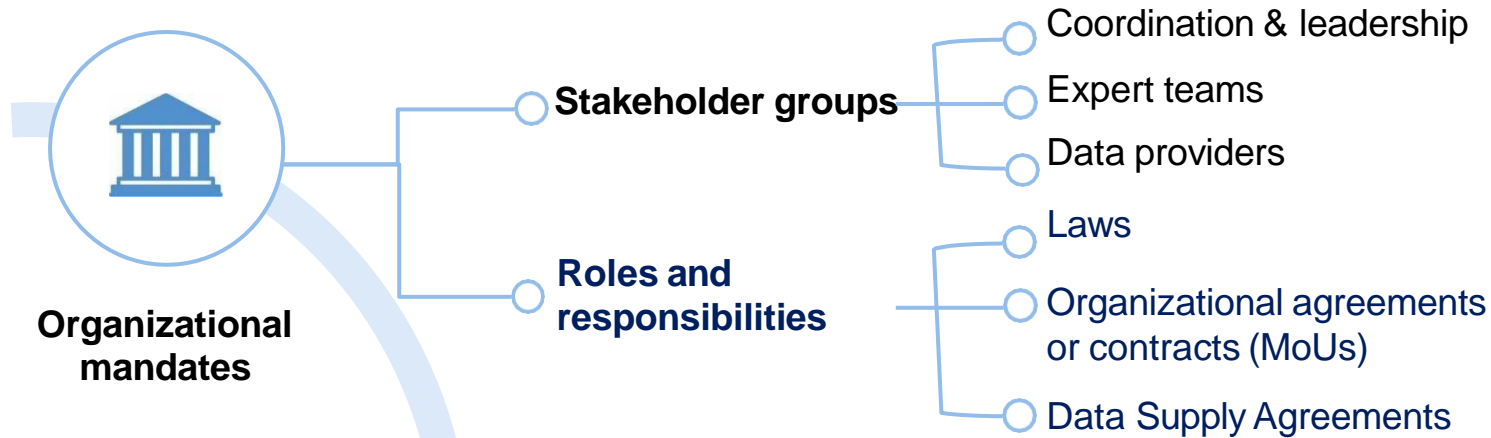
Agreements with data providers

- 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

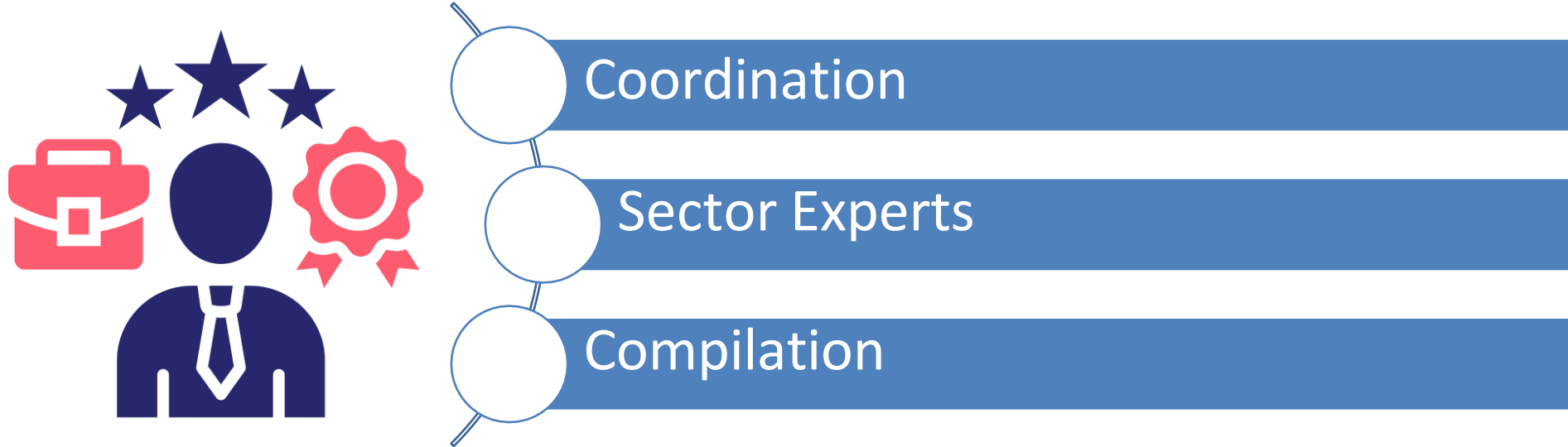


Organizational Mandates



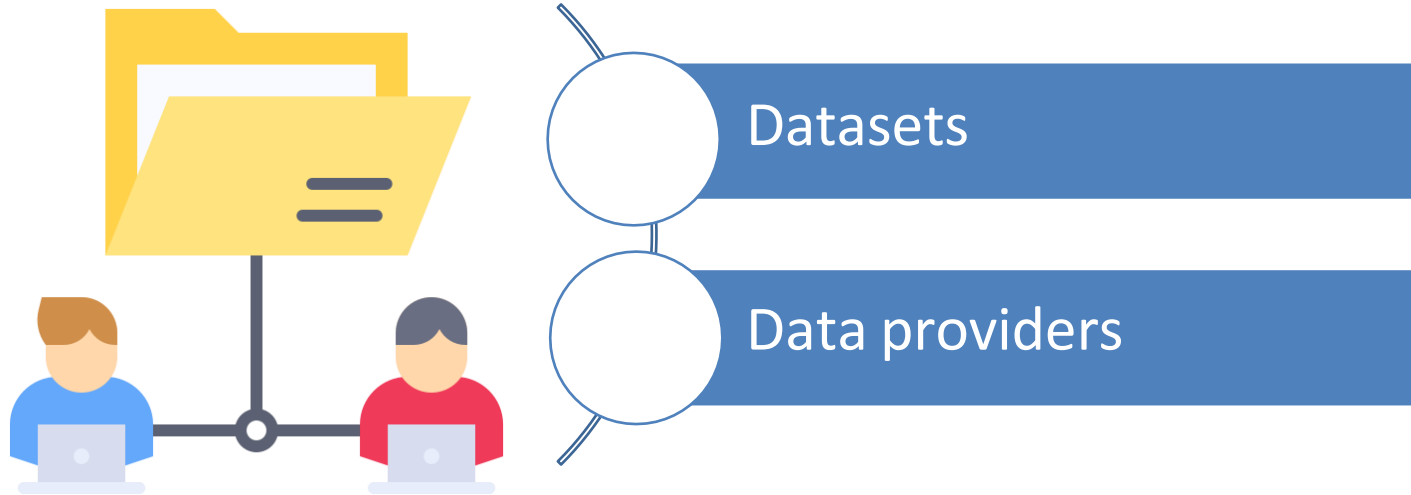
- There are many actors and stakeholders involved in the inputs, processes and results of the inventory.
- In some countries, a single organization can play more than one role.
- Understanding the interests, contributions and involvement of these actors and stakeholders can help establish a long-term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



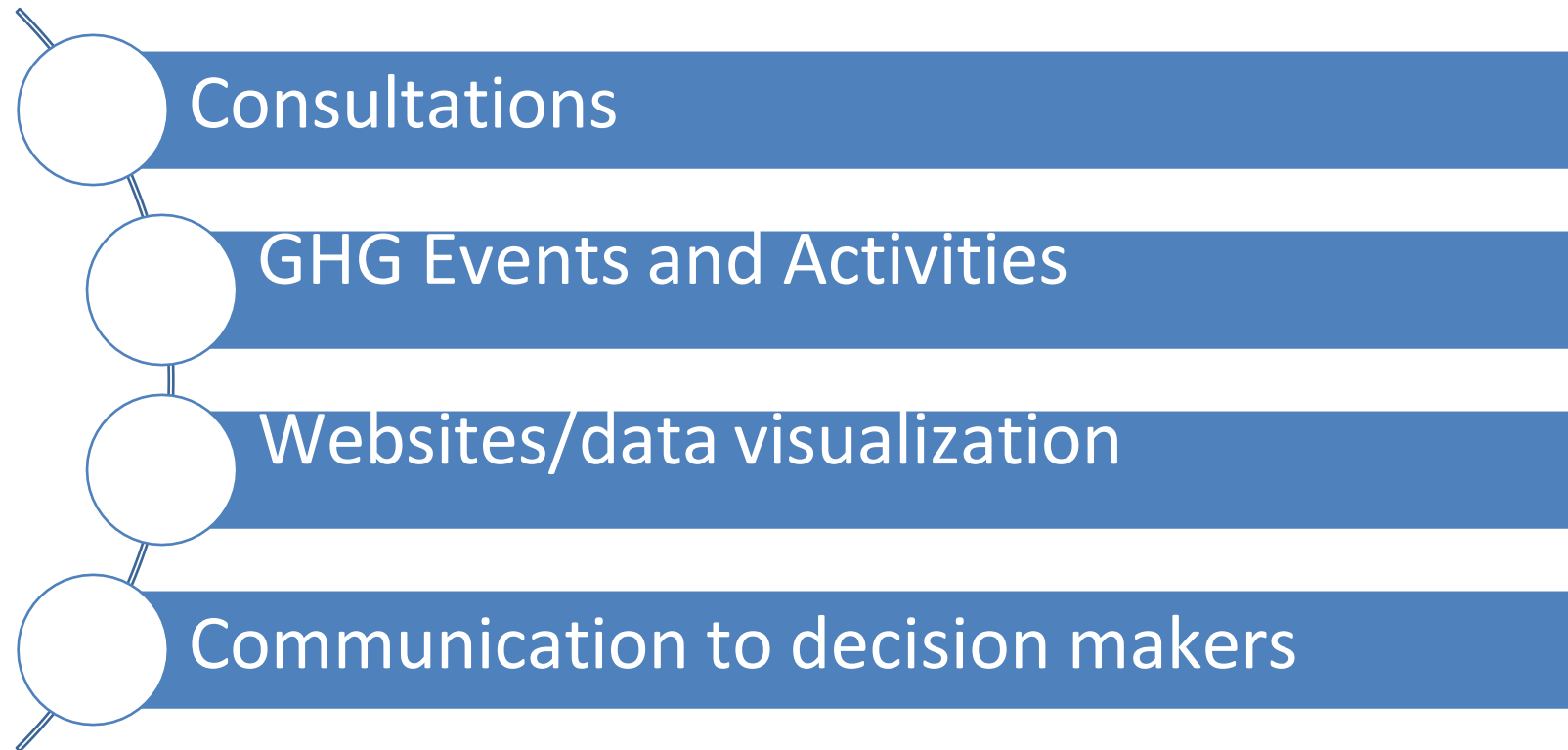
- Reliable, regular data flows are essential that;
 - Define data needs and data uses;
 - Manage the delivery of the required datasets from a range of data providers on a regular basis;
 - Continuously improve data and reducing uncertainty.

Systems and tools



- Procedures, guidance
- Training
- Workplans
- Data Management System
- QA/QC plans

Stakeholder engagement



Thank you for your attention!

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