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Ministry of Climate, Energy and Environment  
Greenhouse Gas Inventory  
and Research Center

# National inventory arrangements: preparing, checking and approving the GHG inventory

25 February, Bangkok



Ministry of Sustainability  
and the Environment  
— SINGAPORE —

NCCS  
NATIONAL CLIMATE CHANGE SECRETARIAT  
SINGAPORE | STRATEGY GROUP  
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# Agenda

**National inventory arrangements - Requirements of the MPGs**

**Practical examples for reporting on national inventory arrangements**

**Typical challenges and solutions**

**Summary and conclusions**



# National inventory arrangements: requirements

## MPGs – chapter on the national inventory report

### Section II.B. National circumstances and institutional arrangements

#### Paragraph 18

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

#### Paragraph 19

Each Party **shall report** the following **functions**

- National entity or focal point
- Inventory preparation process
- Archiving
- Consideration/approval



# Reporting on the functions: National entity or national focal point

- Wording from the MPGs: ,Its national entity or national focal point with **overall responsibility for the national inventory**'.
- Suggestion for reporting: Specify the *organization* which is responsible for *compiling* the national inventory.



# National entity or national focal point

## Example from the BTR of Bangladesh:

### 1.1.2.1 National Entity or National Focal Point

Bangladesh has established institutional arrangements consistent with the Modalities, Procedures and Guidelines for the Enhanced Transparency Framework (ETF) to support continuous, coordinated and technically robust preparation of national GHG inventories and reporting obligations. Ministry of Environment, Forest and Climate Change (MoEFCC) serves as the lead ministry for climate governance and UNFCCC coordination in Bangladesh. The Secretary, MoEFCC is the **National Focal Point** of the UNFCCC.

The MoEFCC provides overall supervision of the BTR process, including inter-ministerial coordination and approval of key deliverables. As the technical arm of the MoEFCC, the Department of Environment is the **national entity** for ETF implementation and **leads the preparation of GHG inventories**, National Communications, NDCs, and Biennial Transparency Reports. DoE hosts the National GHG Inventory System and coordinates data flows with line ministries and agencies.



## Reporting on the functions: inventory preparation process

- Wording from the MPGs: ,Its **inventory preparation process**, including **division of specific responsibilities of institutions**'
- Suggestion for reporting: Describe the main steps taken in the inventory preparation process, and the responsibilities for data collection, emission estimates, checking, and reporting.



# Inventory preparation process

## Example from the NID of Indonesia:

### 1.1.2. Brief Description of the GHGI Preparation Process

#### *Annual GHGI Preparation Cycle*

The annual cycle for GHGI preparation aligns with the fiscal year calendar, spanning from January 1 to December 31. The stages, along with descriptions for each, are detailed in Table 1- 2.

Table 1- 2 Stages in the annual GHGI cycle

Stages	Annual Description
Evaluation of Improvements to the NGHGI (previous year)	The Director General of Climate Change (DG PPI) of the MoEF, in collaboration with the Expert Team, identifies areas needing enhancement based on findings from the prior GHGI review.
Evaluation of GHGI Emissions Estimation Methods	The DG PPI of MoEF, in collaboration with the Expert Team, convenes a meeting to address the estimation methodology for the annual GHGI, including the selection of Tier levels, and to identify issues necessitating technical review by experts possessing relevant scientific expertise for the sectors included in the GHGI.
Collection of GHGI Data	In this stage, the DG PPI of MoEF collaborates with Ministries and Agencies (K/L),



# Reporting on the functions: Archiving

- Wording from the MPGs: ,Its **archiving** of all information [...], 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**'
- Suggestion for reporting: Describe how and where the data are archived. Ensure that all elements are mentioned, without going much into detail on the contents.



# Archiving

Example from the  
BTR of Singapore:

## 1.2.3. Archiving of Information

An Emissions Data Monitoring and Analysis (EDMA) system has been designed for efficient electronic data management and archival of all data used in the estimation of emissions to ensure the continuity and security of the national GHG inventory. The data management functions of the system include archival and storage of past activity data and emission factors, archival and storage of data source descriptions, methodology descriptions and reference materials and one-stop integrated access to the documentation of data sources, methodology descriptions and reference materials.



# Reporting on the functions: Official consideration and approval

- Wording from the MPGs: ,Its processes for the **official consideration and approval** of the inventory’
- Suggestion for reporting: Keep the description concise.

## Example from the BTR of Malaysia:

### 1.2.4. Processes for official consideration and approval of inventory

The process for official consideration and approval of the inventory begins with the Sub Working Group, which comprises five sectors responsible for collecting inventory data. This data is then presented to and shared with the TWG for **review**. MyGHG coordinates the inventory report produced by the TWG and submits it to the TCCC, chaired by the Deputy Secretary General of NRES. Following **discussion at the TCCC**, the report is **forwarded to the NSCCC for consideration**. The NSCCC will provide **recommendation** to the Cabinet for **final endorsement** and implementation.



# Typical challenges (1)

**Detailed national inventory arrangements are not yet established.**

**Suggested solution:** Provide brief information on the current situation, and try to cover all functions:

- Responsible entity for compiling the GHG inventory;
- Main steps and responsibilities for inventory preparation;
- The basic process of archiving information;
- The process of approving the inventory, which may be linked to approving the BTR.



## Typical challenges (2)

**Some functions have not yet been defined (e.g. the archiving of specific information).**

**Suggested solution:** Briefly describe what has been done during the preparation of the current inventory. For example, activity data and emission factors have been stored on the ministry's file server in Excel tables.

These functions can be made more specific over time.



# Summary and conclusions

- Each Party **should implement and maintain** national inventory arrangements.
- Each Party **shall report** the **functions** (national entity or focal point, inventory preparation process, archiving, consideration/approval).
- **National inventory arrangement** will evolve over time. They vary by Party depending on the national circumstances.
- The **reporting on the functions** is important for transparency. Reporting can be extended and improved over time.



# Introduction to the exercise

- You will receive an example chapter on ‘institutional arrangements’ as a printout.
- Please check whether you can find information on the following functions:
  - 1. National entity or focal point;**
  - 2. Inventory preparation process;**
  - 3. Archiving: 3.a emission factors; 3.b activity data; 3.c generating and aggregating data; 3.d QA/QC; 3.e review results; 3.f planned improvements;**
  - 4. Consideration and approval.**
- In your view, which additional information could be provided on the various functions?



## Backup slide: Wording of the MPGs

18. Each Party **should implement** and maintain **national inventory arrangements**, including institutional, legal and procedural arrangements for the continued estimation, compilation and timely reporting of national inventory reports in accordance with these MPGs. National inventory arrangements can vary by Party depending on their national circumstances and preferences, and change over time.

19. 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 to ensure that sufficient activity data collection, choice and development of methods, emission factors and other parameters are in accordance with the IPCC guidelines referred to in paragraph 20 below and these MPGs;
- (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.