



MINISTRY OF ENVIRONMENT
AND GREEN DEVELOPMENT

Capacity-building cooperation for the development of NAMAs in a MRV manner between Mongolia and Japan

Introduction to National Inventory System of energy sector

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Outline

1. National GHG Inventory System (NIS)
2. Inventory Planning
3. Inventory Preparation
4. Inventory Management
5. GHG Inventory approaches for energy sector
6. Summary

1. National GHG Inventory System (NIS)

Introduction

Archiving system,
GHG emissions data
management systems

Institutional / legal /
procedural arrangements

Estimation, Quality
Assurance/Quality
Control, Verification

**INVENTORY DEVELOPMENT
ON A PERMANENT AND
REGULAR BASIS**

1. National GHG Inventory System (NIS)

I. Inventory Planning

- Institutional Arrangements
 - Single National Entity (SNE) (CCCO, MEGD according to Article 24.2 of the Air Law of Mongolia, revised version 2012)
 - Inventory Coordinator (has both technical and administrative expertise in addition to governmental authority)
 - Inventory Compiler (prepares CRF and writes the National Inventory Report)
 - Sectoral Personnel (collects activity data and estimates sectoral GHG emissions. E.g. Ministries and research institutes)
- Legal Arrangements
 - Designation of a legislative authority to SNE (revised version of the Air Law of Mongolia, Article 24.2)
 - Collaboration arrangements
 - Monitoring and reporting schemes for GHG data
- Procedural Arrangements

2. Inventory planning

➤ Institutional arrangement

- **Single National Entity (SNE):** CCCO, MEGD - Article 24.2 of the Air Law of Mongolia, revised version 2012
- **Inventory Coordinator:** Officer for GHG inventory and mitigation, who responsible for whole inventory, especially for the sectors Energy and Industrial Processes.
- **Inventory Compiler:** Officer for GHG inventory and mitigation.
- **Sectoral Personnel:** 2 GHG inventory team members, who responsible for data collection of Agriculture, Waste and LULUCF sectors.

2. Inventory planning

➤ Legal arrangement

- **Designation of a legislative authority to SNE:** revised version of the Air Law of Mongolia, Article 24.2.
- **Collaboration arrangements:** all related ministries, agencies, organizations, whose activity data is necessary for the estimation of GHG emissions and removals inventory, are obligated to provide data SNE with data for certain year.
- **Monitoring and reporting schemes:** input collected data to Common Reporting Format (CRF), Excel spreadsheets

2. Inventory planning

➤ Procedural arrangement

- Planning schedules for the inventory cycle:

No	Process	Relevant entities	Calendar year												
			2013									2014			
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
1	Discussion on the inventory preparation	CCCO													
2	Study of IPCC methodologies	CCCO													
3	Raw data collection for the national GHG inventory	CCCO, NSA, MEGD, relevant ministries /agencies													
4	Activity data assessment	CCCO													
5	Preparation of a CRF draft	CCCO										★			

National GHG Inventory System (NIS)

II. Inventory Preparation

- Activity Data collection & Processing
 - Consideration of applicable Methodologies
 - Consideration of available Activity data
 - Consideration of available Data processing and Data gap treatment
- Emission Factors (EFs)
 - Default EFs (depends on decision tree)
 - Exploring EFDB options (technologies, parameters, region, abatement)
 - Development of EFs (mostly country-specific EFs are different from default EFs)
- Quality Assurance / Control & Verification
 - **QA** → verifying the **achievement of data quality objectives**; ensuring best possible estimation.
 - **QC** → **accuracy checks** on data acquisition and calculations.

3. Inventory preparation

➤ Activity data collection and Processing for Energy sector

- **Raw data collection:** raw data collection from statistical yearbook, data request from NSA and ministries/agencies by sending letters.
- **Activity data estimation:** for some unclear/unavailable activity data was used estimation methodology (e.g. percentage)
- Consideration of available data processing and data gap treatment

3. Inventory preparation

➤ Emission Factors for Energy sector

- **Default emission factors (EFs):** IPCC default emission factors.
- **Exploring EFDB options:** consideration IPCC EFDB, which is not including Mongolia.
- **Development of EFs:** Mongolia has not yet country-specific EF for energy sector.

National GHG Inventory System (NIS)

III. Inventory Management

- Archiving Systems
 - List files and documents to archive
 - Make a manual for the inventory archive
- Documentation
 - National GHG Inventory Report
 - GHG Inventory MRV Guidelines
 - GHG Inventory Internal Review Report
- GHG Emissions Data management systems
 - Allocation of the Access and Authority in the Database by Entity
 - System design: Design for MRV Automation

4. GHG Inventory approaches for energy sector

➤ Reference approach:

- Activity data (AD) collection is mainly from Statistical yearbook, Coal balance. Based on total consumptions of fuels.
- Default Emission Factors.

➤ Sectoral approach (Tier1):

Energy industries, Manufacturing industries and construction, Transport, International bunkers, Commercial/Institutional sector, Residential sector, Agriculture/Forestry/Fishing.

- AD collection for fuel consumption for these sectors are available in total amount, but not in fuel type.
 - ➔ Estimation and calculation of AD and need to discuss with local consultants.
- Default Emission Factors.

Summary

Current status of GHG Inventory of energy sector:

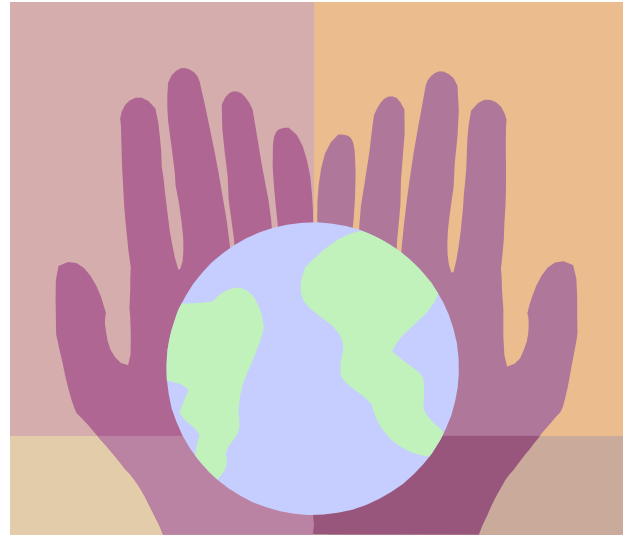
- Ongoing data collection
- Preparation of CRF draft

Key challenges:

- Identification of data sources and AD collection
- Limited capacity of experiences – lack of professional human sources

Needs:

- National Inventory System development (Institutional, legal and procedural arrangements)
- Establishment GHG Inventory cross-sectoral working group
- Capacity-building on GHG Inventory preparation (The project for NCs, BURs and GHG Inventory to be launched soon)
- Establishment of database



Thank you for your attention!