

Challenges for Development of National GHG Inventory

Experiences of JICA's Technical Cooperation

WGIA10 meeting, at Hanoi on July 12, 2012

Naoki MORI

Japan International Cooperation Agency (JICA)

Outline

1. **JICA's approach** to support development of GHG Inventory
2. **Case Study 1:**
Capacity Development of National Greenhouse Gas Inventory in **Vietnam**
3. **Case Study 2:**
Capacity Development for Climate Change Strategies in **Indonesia**
4. **Conclusion**

JICA's approach to support development of GHG Inventory

- Completion of GHG Inventory is not the final goal.
 - It is more important to establish the “reliable” and “self-reliant” system to update the inventory after completion of GHG Inventory.
 - Such system would be feasible and sustainable through human resource development from the initial stage of design and development of the system.
- JICA will focus more **on capacity development in the process of development of GHG Inventory.**

JICA's approach to support development of GHG Inventory

Required Capacity

Technical skills on data collection, selection of EFs, data compilation, QA/QC, etc.

Management skills on making the process systematize

Communication skills on inter-ministerial & multi-stakeholder cooperation



Expected Outcome

- Produce draft national GHG inventory reports as a test run
- Establish the system in which data be updated periodically in reliable manner

Case Studies

Currently, JICA implements 2 projects related to GHG inventory preparation in developing countries:

1. Project for Capacity Development of **National GHG Inventory in Vietnam** (2010-2014)
2. Project of Capacity Development for **Climate Change Strategies in Indonesia** (2010-2015)

<Case Study 1>

Project for Capacity Development of National Greenhouse Gas Inventory in **Vietnam** (2010-2014)

➤ **Background**

- The economy of Vietnam has been developing rapidly with the expansion of energy consumption and other activities which would result in higher levels of GHG emissions.
- **The annual increase rate of GHG emission (1990-2008) is the 4th in the world.**

➤ **Efforts of the Government of Vietnam**

- In 2008: **National Target Program** to Respond to Climate Change
- In 2011: **National Strategy** on Climate Change
- In 2012: **National Committee** for Climate Change
- In 2012: **Green Growth Strategy** (expected)

<Case Study 1>

➤ PROJECT FRAMEWORK

Project Purpose :

Strengthen the capacity to periodically prepare GHG inventories based on clear estimation methods for GHG emissions, using accurate and consistent data

Outputs:

1. Capacity to periodically and systematically collect and compile necessary data for National GHG inventories is enhanced.
2. Capacity to promote understanding of national GHG inventories in relevant ministries and agencies is enhanced.
3. Capacity to manage quality assurance/quality control (QA/QC) of GHG inventories is enhanced in each sector

Counterpart:

Ministry of Natural Resource and Environment (MONRE)

<Case Study 1>

Progress made

■ Development of national system for GHG inventory

- The following items were drafted:

Capacity Assessment Plan

Quality Assurance/Quality Control (QA/QC) activity plan,

Roadmap for improving national system,

Structure of Institutional Arrangement,

Data collection framework.

■ Preparation on technical issues for GHG inventory

- Studying technical issues of preparing GHG inventories, such as estimation methods, by young Vietnamese experts has been progressed.
- Collecting of information on data necessary for preparing the 2005 national GHG inventory has begun.

<Case Study 1>

Challenges

- **Need for establishment of cooperation system with relevant ministries and agencies**
 - As of now, the cooperation framework was drafted, but the cooperation system with relevant ministries and agencies has not been established yet.
 - Detailed procedure and guidance, clarifying the roles and responsibilities among relevant ministries and agencies should be developed, based on the framework.
 - It is important to convincing relevant ministries and agencies of the importance of the national GHG Inventory and its merits for future activities.

<Case Study 2>

Project of Capacity Development for Climate Change Strategies in **Indonesia** (2010-2015)

➤ **Background**

- **The 5th largest GHG emitting country in the world** (includes deforestation and peat land conversion)
- **Rapid increase in GHG emission due to economic development**

➤ **Efforts of the Government of Indonesia**

- **GHG emission reduction by 26% from BAU situation by 2020**, announced in 2009
- **Presidential Regulations** issued in 2011
 - **National Action Plan** for GHG Emissions Reduction
 - **Implementation** of GHG Inventory
- **Development of adaptation strategy** (expected to be completed in 2012)

<Case Study 2>

➤ PROJECT FRAMEWORK

Project Purpose:

Capacity Development of the Government of Indonesia to formulate climate change policies

SUB-PROJECT 1

- ① NAMA in a MRV manner
- ② Integration of adaption strategies into development planning

< National Development Planning Agency (BAPPENAS) >



SUB-PROJECT 2

Vulnerability Assessment

< Meteorology, Climatology and Geophysics Agency (BMKG) >



SUB-PROJECT 3

Prepare national GHG Inventory

< Ministry of Environment (KLH) >

◆ Sub-Project 3 ‘Capacity Development for Developing National GHG Inventory’

Progress made

- Institutional arrangement for developing GHG inventory
 - Working groups of line ministries have been organized.

- Preparation of technical issues for GHG inventory
 - Progress in understanding the technical issues of preparing GHG inventory has been made.
 - Data collection as well as the discussion on methods to be used for the 2008 GHG inventory have begun.

- Pilot Project in waste sector in North and South Sumatera
 - Pilot project has started for improving accuracy and reliability of activity data in waste sector.

Working Groups

	Energy Sector	Industrial Processes and Product use Sector	Agriculture	Land use, Land use change and Forestry	Waste
KLH Coordinator	Pak Mulkan	Pak Agus, Ibu Sabita	Pak Pras	Pak Gatot	Ibu Wukir
Line Ministries	<ul style="list-style-type: none"> ■ MEMR (Pusdatin and EBTKE) ■ Ministry of Transportation ■ Ministry of Industry 	<ul style="list-style-type: none"> ■ Mol (Centre for Green Industry and Environment Assessment and each Directorate General) ■ BPS 	<ul style="list-style-type: none"> ■ Ministry of Agriculture ■ BPS 	<ul style="list-style-type: none"> ■ Ministry of Forestry (Department of Forest inventory and monitoring, Centre for Standardization and Environment) ■ Ministry of Public Works 	<ul style="list-style-type: none"> ■ Ministry of Public Works ■ Ministry of Industry
Other potential data providers	Pertamina, PLN, Industries, Associations	Association of Industries	Research Institutions		
JICA Expert team	Mr. Okada	Mr. Nakashima	Mr. Dudley	Mr. Yano, Mr. Hiratsuka	Mr. Ueda

◆ Sub-Project 3

Challenges

■ Need to strengthen collaboration with relevant line ministries and agencies

- Presidential Regulation 71 (2011) sets line ministries to be responsible for sectors not only data collection but also estimation which requires additional skills for ministries.
- Presidential Regulation 71 does not stipulate the details of the national system to develop and operate GHG Inventory.
- Ministry of Environment (KLH) is the responsible agency for GHG Inventory, but detailed processes of cooperation and coordination among line ministries and agencies are yet to be decided.

Conclusion

Requires 3S

1. **Strong commitment on Climate Change by the Government : Guidance and Support**
2. **Sustainability of the system to operate GHG Inventory**
 - cooperation mechanism among ministries and agencies from data collection to QA/QC
 - self improving system for better quality of data and methods
3. **Sharing clearer vision how to use the Inventory toward value added activities**

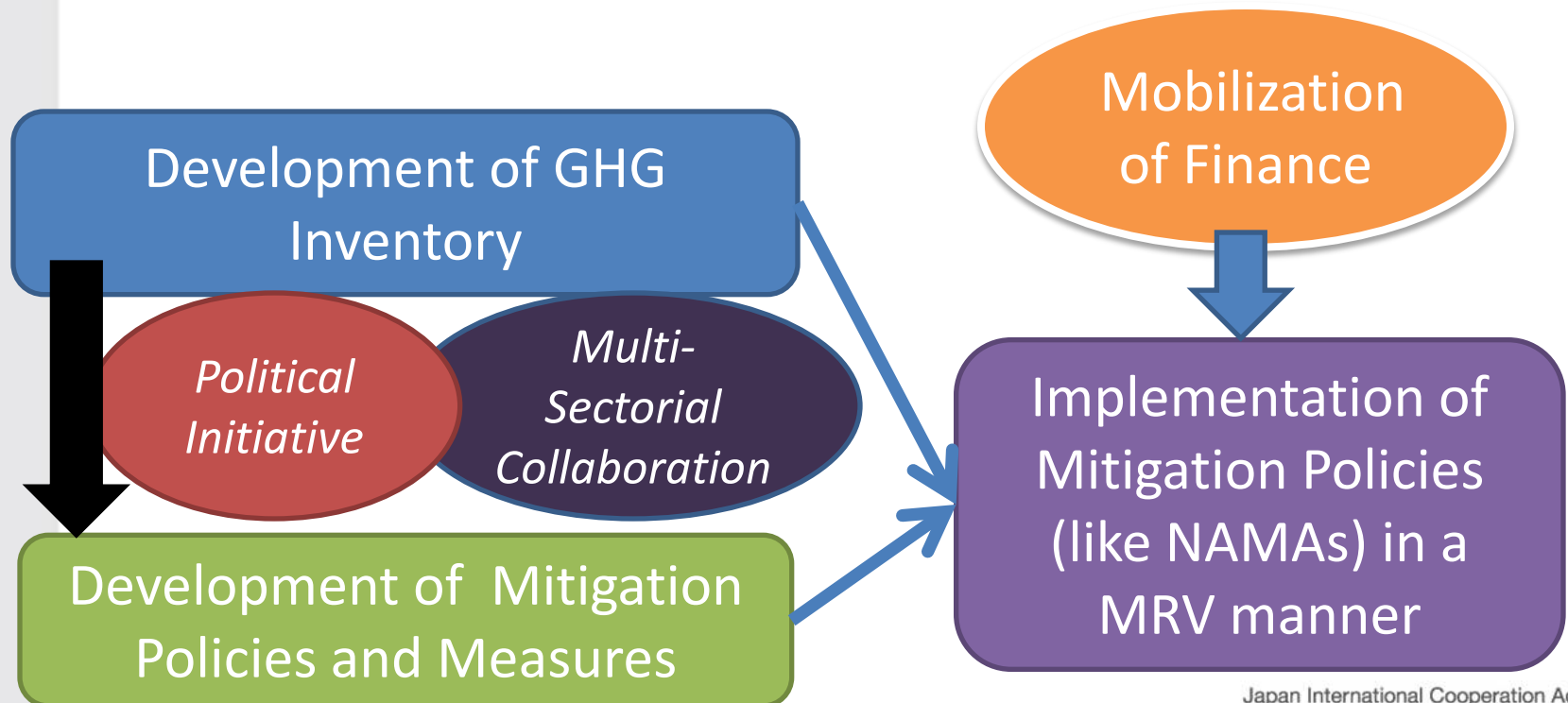
Conclusion

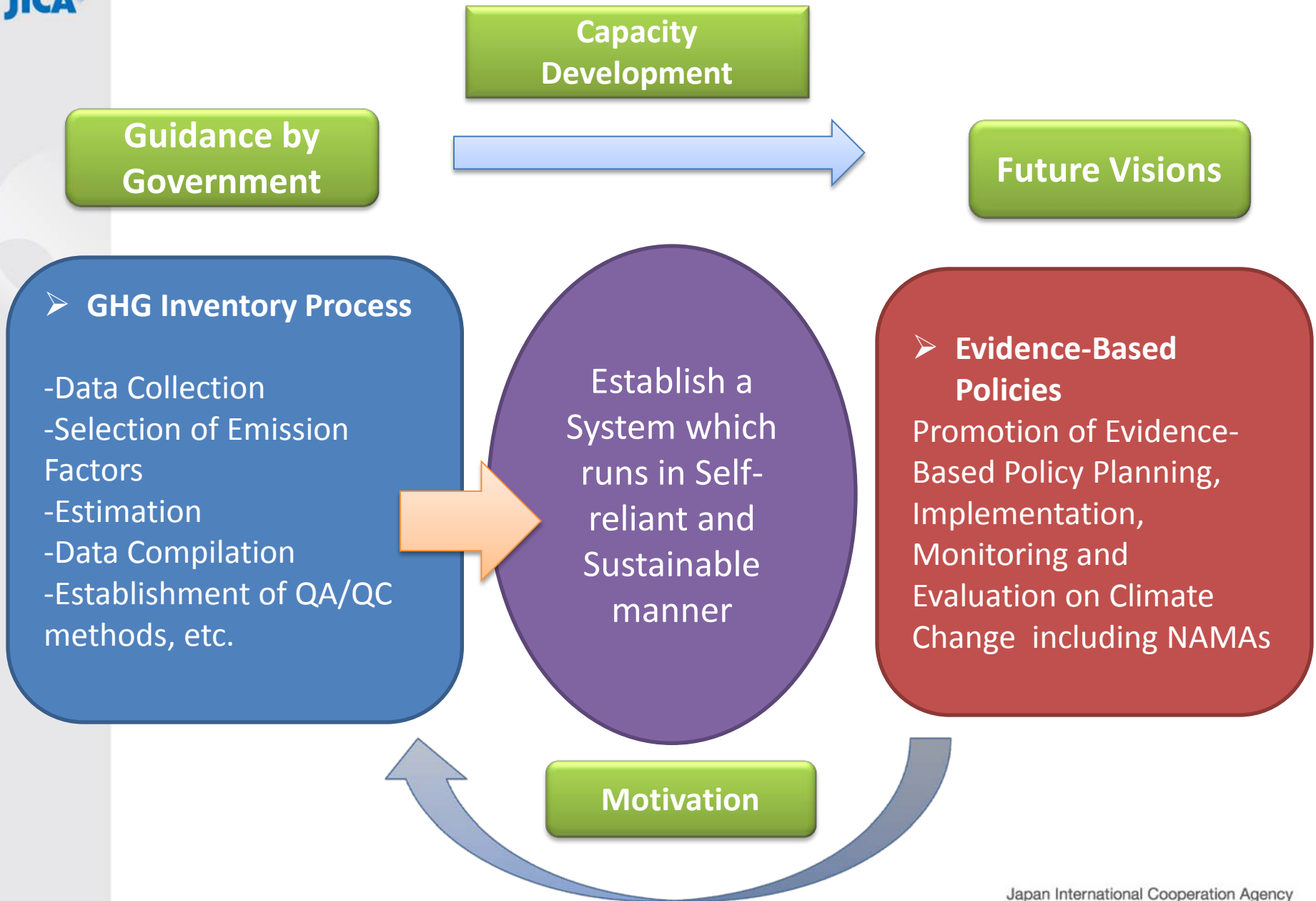
What are required to achieve 3S?

1. **Strong commitment : Guidance and Support**
 - (i.e.) allocation of staffs and budget in inventory development
2. **Sustainability of the system**
 - (1) cooperation system among ministries and agencies
 - (i.e.) regulation and guidance of the procedure, understanding tangible merits of the inventory
 - (2) self improving system for better quality
 - (i.e.) continuous training or learning opportunity
3. **Sharing clearer vision how to use the Inventory**
 - (i.e.) evidence based policy planning, NAMA finance

GHG inventories are a useful tool for countries

- to understand the level of national GHG emissions;
- to use as a basis for developing and implementing mitigation policies and measures;
- to track the progress of mitigation policies and measures.





Thank you for your Attention!

