Original Purposes & Multi-applications of National Statistics Used for Japan's GHG Inventory

- LULUCF Sector -

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1. Major Problem for Developing Inventory Data on LULUCF Sector in Asia

– Examples of lacked data (from questionnaires)

- Forest land area data
- Biomass consumption data
- Commercial harvest according to ecosystem type
- Status of abandoned managed land
- Land use data of converted forests
- Historic soil data
- Activity data for the time series

➢ Major Problem: Lack of sufficient activity data on LULUCF sector

1-2. Main Cause of the Difficulty of Collecting Activity Data

- **Main Cause:** Lack of well-developed institutional arrangement and sufficient cooperative relationships between national administrative agencies
  - Developing LULUCF data is time- and cost-consuming.
  - It is difficult for an agency responsible for developing an inventory to solely develop such statistics.
  - Institutional arrangement and cooperative relationships between national administrative agencies are indispensable.

- **Solution:** to consider what benefits other agencies can receive from statistics necessary for inventory development.

- **Recommendation:** to develop Multipurpose statistics

2. Successful Example of Developing the Institutional Arrangement between National Agencies - Japan

- Japan uses mainly **4 multipurpose statistics** for developing data on LULUCF sector.
- Agencies responsible for developing the existing statistics are not the Ministry of the Environment (MOE) of Japan **but other national agencies**.
- In cooperation with other national agencies, the MOE is responsible for compiling inventory data.
- **Original purposes of these statistics are not inventory development but other purposes.**

2-2. Features of the Statistics used for Inventory Data in LULUCF Sector in Japan

Name of Statistics	Land-Use Categories in LULUCF	Responsible Agency	Original Purposes of each Statistic
Forestry Status Survey	Forestland	Forestry Agency	Providing fundamental data for developing the **National Forest Management Plan**.
Statistics of Cultivated and Planted Land	Cropland Grassland	Ministry of Agriculture, Forestry, and Fishery (MAFF)	Providing data for developing the National Basic Plan for Food, Agriculture, and Rural Areas.
World Census of Agriculture and Forestry	Meadow and Pasture in Grassland	MAFF	Providing information fundamentally necessary for developing policies of agriculture and forestry.
Land Use Status Survey	Wetland Settlement	Ministry of Land, Infrastructure, and Transport (MLIT)	providing fundamental data for developing a national land utilization plan and urban-area utilization plans.

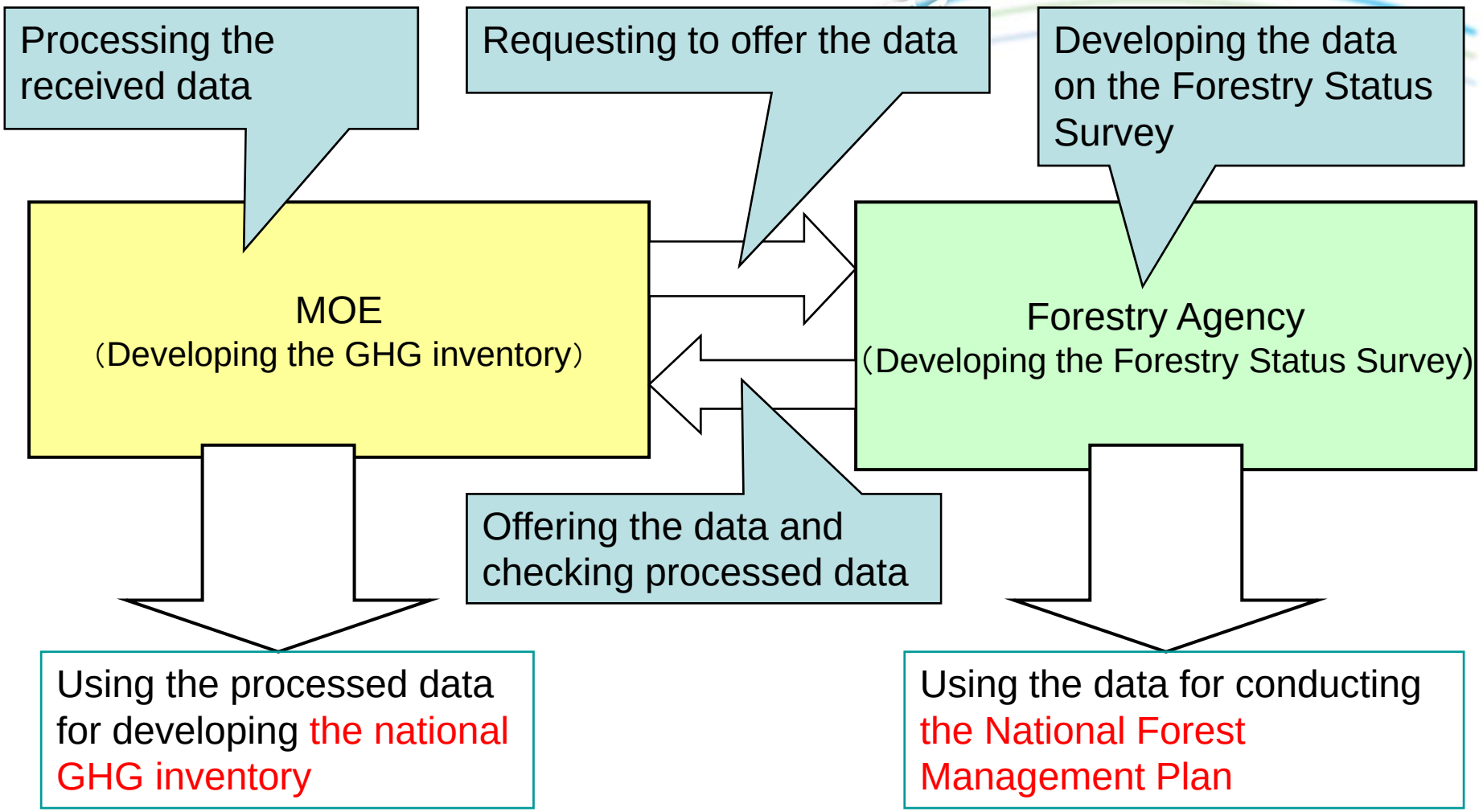
2-3. Example – Original Purposes of Forestry Status Survey and the National Forest Management Plan

- Original Purposes of the Forestry Status Survey
  - Comprehending the major trends of national forest resources and forestry industries,
  - Providing fundamental quantitative data for developing the **National Forest Management Plan**.

- Purposes of the National Forest Management Plan
  - Conducting sustainable timber production,
  - Protecting forest ecosystem services for public welfare.

  ➢ Collecting and aggregating data on forestland in LULUCF Sector is **an ancillary purpose**.

2-4. Flowchart of Using the data on the Forestry Status Survey



2-5. Benefits of Developing the Data on the Forestry Status Survey

- In Japan, the benefit that the Forestry Status Survey can offer data as the activity data of forestland in LULUCF Sector is **an ancillary benefit**.

- **The principal benefit** of the data in the Forestry Status Survey is to provide fundamental data for developing quantitative targets in order to conduct Japan's integrated National Forest Management Plan.

  - The quantitative data collected from each site have abilities
    - To correctly conduct integrated national forest management from national through regional to site levels, and
    - To monitor site-level forest utilization and detect unplanned deforested areas.

4. Summary

1. The major problem on LULUCF sector in Asia is lack of sufficient activity data.

2. The main issue seems to be the lack of proper institutional arrangement and cooperative relationships between national agencies. If a country desire to collect activity data, they are indispensable.

3. Japan has succeeded by allowing existing statistical data to have multipurpose applications, which are beneficial both for the MOE and for other national agencies.

4. The agency responsible for developing the national GHG inventory need to consider and provide benefits for other interested national agencies, which come to actually develop statistical data necessary for the inventory.

Thank you!

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(Reference1-1) The Current Status of Japan's Activity Data (1)

	Living Biomass	DOM	Soils
5.A.1 Forest land remaining Forest land	●	NA	NA
5.A.2 Land converted to Forest land	●	NA	●
5.B.1 Cropland remaining Cropland	NA	NE	NA
5.B.2 Land converted to Cropland	●	NE	●
5.C.1 Grassland remaining Grassland	NA	NE	NA
5.C.2 Land converted to Grassland	●	NE	●
5.D.1 Wetlands remaining Wetlands	NO, NE	NO, NE	NO, NE
- Organic soils managed for peat extraction	NO	NO	NO
- Flooded land remaining flooded land	NE	NE	NE
5.D.2 Land converted to Wetlands	●	NE	NE
5.E.1 Settlements remaining Settlements	●	NE	NE
5.E.2 Land converted to Settlements	●	NE	NE
5.F.1 Other land remaining Other land	–	–	–
5.F.2 Land converted to Other land	●	NE	●

Note: ● = Activity data that Japan has already prepared.

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(Reference1-2) The Current Status of Japan's Activity Data (2)

	CH_4	N_2O	Carbon
5(I) Direct N_2O emissions from N fertilization			
Forest land	-	IE	-
5(II) N_2O emissions from drainage of soils			
Forest land, Wetlands – Organic soil	-	NO	-
Forest land, Wetlands – Mineral soil	-	NE	-
5(III) N_2O emissions from disturbance associated with LU conversion to cropland			
Lands converted to Cropland – Organic soils	-	NO	-
Lands converted to Cropland – Mineral soils	-	●	-
5(IV) Carbon emissions from agricultural lime application	-	-	NE
5(V) Biomass burning			
Forest land remaining Forest land – controlled burning	IE	IE	-
Forest land remaining Forest land – wildfires	●	●	-
Land converted to Forest land – controlled burning	IE	IE	-
Land converted to Forest land – wildfires	IE	IE	-
Non-Forest land remaining Non-Forest land – controlled burning	NE	NE	-
Non-Forest land remaining Non-Forest land – wildfires	NE	NE	-
Land converted to Non-Forest land – controlled burning	●	●	-
Land converted to Non-Forest land – wildfires	NE	NE	

(Reference 2) Structure of Japan's National Forest Management Planning System

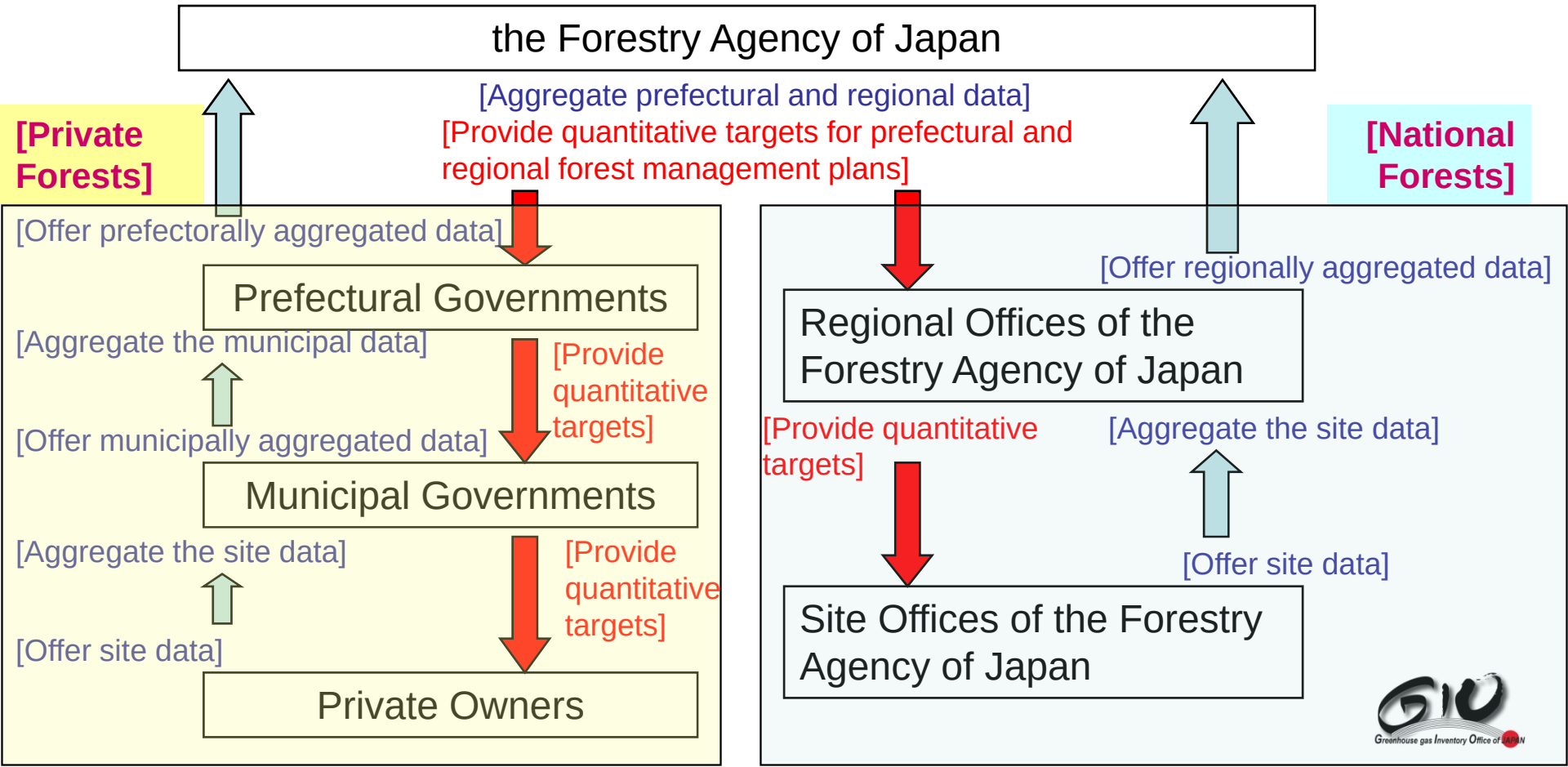
- Japan uses the data for conducting the Japan's National Forest Management Planning System.

<The Structure of the Japan's National Forest Management Planning System>

(Reference 3) Method of Collecting the Data on the Forest Status Survey

- Forestry Agency of Japan collects the data along with the structure of the Japan's National Forest Management Planning System.

<The Structure of Collecting the Data on the Forest Status Survey>



(Reference 4) Forest Ecosystem Services

- Forest Ecosystem Services defined by the United Nations Millennium Ecosystem Assessment
  - Food, Timber, Fresh water, Fuelwood, Flood regulation, Disease regulation, Carbon sequestration, Local climate regulation, Medicines, Recreation, Aesthetic values, Spiritual values.

Retrieved from UN Millennium Ecosystem Assessment, *Living beyond Our Means: Natural Assets and Human Well-being: Statement from the Board* (Publication Draft), online: MA <http://www.millenniumassessment.org/proxy/document.444.aspx>

- Forest Ecosystem Services for Public Welfare defined under Article 25 of the Forest Act of Japan (Japan expresses these services as “public functions”.)
  - Headwater conservation, Soil run-off prevention, Landslide prevention, Shifting sand prevention, Windbreak, Flood damage prevention, Tidal wave and salty wind prevention, Drought prevention, Snow drift prevention, Fog inflow prevention, Avalanche prevention, Rock-fall prevention, Fire prevention, Fish breeding, Navigation Landmarks, Public health, Scenic site conservation.