

The Development of Japan's National System

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Requirements for a national system



- Kyoto Protocol required each Annex I Party to have its National System for GHG inventory preparation in place by the end of 2006 (Article 5). (Decision 19/CMP.1 - Guidelines for National Systems)
- A "National System" includes everything relevant to national GHG inventory preparation.
 - ✓ Legal basis
 - ✓ Institutional Arrangements
 - ✓ Flow of the Inventory Compilation Process
 - ✓ Quality Assurance and Quality Control (QA/QC) of the Inventory
 - ✓ Inventory Improvement Plan
- This information is included in the NIR (National Inventory Report), as well as in the QA/QC plan.

Japan's legal basis for inventory



preparation

- Article 7 of the Act on Promotion of Global Warming Countermeasures
 - In order to prepare the inventory prescribed in Article 4, paragraph 1 (a) of the United Nations Framework Convention on Climate Change and the annual inventory prescribed in Article 7, paragraph 1 of the Kyoto Protocol, the national government shall calculate greenhouse gas emissions and removals in Japan each year, and the results shall be published as prescribed by an Ordinance of the Ministry of the Environment.



Current Institutional arrangement

UNFCCC Secretariat

Ministry of Foreign

Affairs

Ministry of the

Environment

(Low-carbon Society

Inventory Submission

Inventory Submission

Request for

QC check of

Request for

NIR&CRF

revisina

(QC)

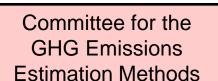
Data provision

Data

provision

NIR & CRF

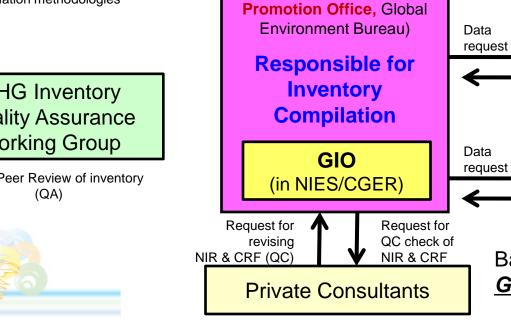




Review and approval of estimation methodologies

GHG Inventory **Quality Assurance** Working Group

Expert Peer Review of inventory



Relevant Ministries

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, **Transport and Tourism**

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Ministry of Finance

Ministry of Internal Affairs and Communications

Ministry of the Environment (Other divisions)

Other Stakeholder Organizations

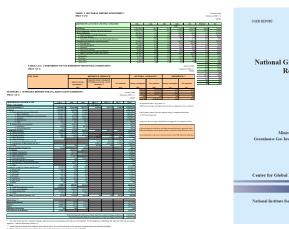
Based on the Act on Promotion of Global Warming Countermeasures

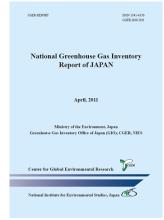
GIO's tasks in relation to the inventory

- Compile Japan's GHG inventory
 - ✓ Planning and management
 - ✓ Data collection for estimation
 - ✓ Estimation of emissions/removals
 - ✓ Compilation of CRF and NIR
 - ✓ QC check in inventory compilation
 - ✓ Archiving information and data
- Arrange for QA to be conducted
- ➤ Respond to UNFCCC inventory review
- ➤ Request the Committee for the GHG Emissions Estimation Methods to consider issues raised in the process of QA and inventory review

All tasks are carried out upon consultation with MOE as needed.

Greenhouse gas Inventory Office of Japan





Common Reporting Format (CRF)

National Inventory
Report (NIR)

Improvement process



Matters taken into account:

- ✓ Outcomes of UNFCCC inventory review and QA
- ✓ Progress of international negotiations
- ✓ Progress of scientific research and change in statistics
- ✓ Understanding of new information from the *mandatory* GHG accounting and reporting system

Revision of inventory improvement plan (Discussion of improvement principal and schedule)

Detailed examination of the review reports

industrial organizations, and subsequent implementation

Discussion and approval under the

Request of investigation and scientific

research to research institutes and

approval under the Committee for the Greenhouse Gas Emissions Estimation Methods

Reflection of new estimation methods to the inventory

Checking inventory

✓ UNFCCC inventory review

√QA

Inventory compilation

Inventory submission to the UNFCCC Secretariat

Inventory compilation schedule (Annual)



	Process	Relevant Entities	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Discussion for improvement	MOE, GIO												
2	Consideration of inventory improvements & Holding the meeting of the Committee	MOE, (GIO, Private consultant)								\				
3	Data collection	MOE, GIO, Relevant Ministries/ Organization, Private consultant	P	re	lin	nin	ary	/ 				Fi	na	I
4	Preparation of draft CRF and NIR	GIO, Private consultant										\		
5	Implementation of QC and coordination with relevant ministries	MOE, GIO, Relevant Ministries, Private consultant												
6	Finalizing draft CRF and NIR	MOE, GIO, Private consultant												
7	Submission and official announcement	MOE, Ministry of Foreign Affairs, GIO										7		
8	QA-WG	MOE, GIO, Relevant Ministries												-

Inventory compilation schedule (Jan - April)

Process		Jan		Feb			Mar				
1	Update of calculation files										
2	Data collection										
3	Preparation of NIR										
4	Estimation of emissions/removals										
5	Preparation of CRF										
6	1 st QC of draft NIR and CRF										
7	2 nd QC of revised NIR and CRF										
8	Finalizing NIR and CRF Submission and official announcement									*	

The following aspects are important for timely submission:

- ✓ Planning and management
- ✓ Clear understanding of the preparation process and one's role
- ✓ Clear understanding of required data for estimation



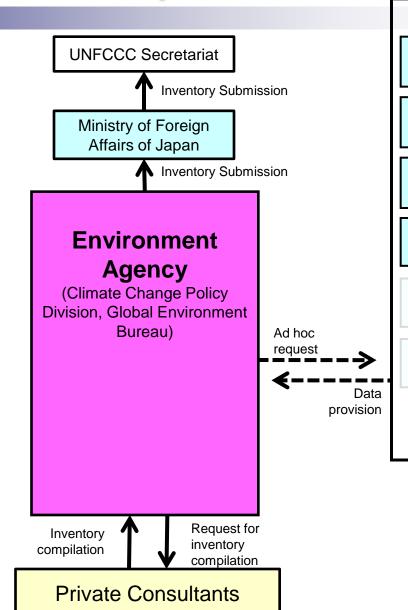
HISTORY: THE DEVELOPMENT OF JAPAN'S NATIONAL SYSTEM



Phase 1 (1992-1994)



For Initial NC



Relevant Ministries

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, Transport and Tourism

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Ministry of Finance Japan

Ministry of Internal Affairs and Communications



Phase 2 (1996-1998)



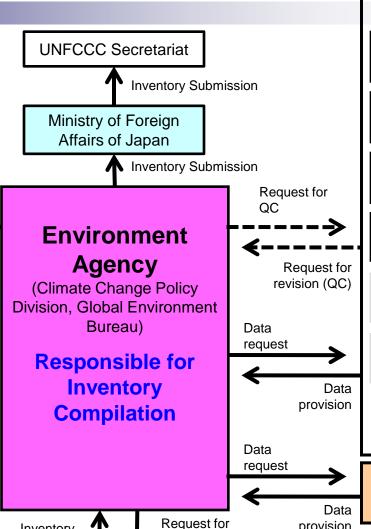
For annual submission

Ad hoc Committee for the GHG Emissions **Estimation Methods**

> Review and approval of estimation methodologies

The Act on Promotion of Global Warming Countermeasures was legislated.





inventory

Private Consultants

compilation

Inventory

compilation

Relevant Ministries

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, **Transport and Tourism**

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Other Stakeholder Organizations

provision

Phase 3 (1999-2002)



Relevant Ministries

Request for

Request for

Data provision

Data

provision

revision (QC)

QC

Data request

Data request

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, Transport and Tourism

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Ministry of Finance

Ministry of Internal Affairs and Communications

Ministry of the Environment (Other sections)

Other Stakeholder Organizations

Committee for the GHG Emissions Estimation Methods

Review and approval of estimation methodologies

Ministry of the
Environment

UNFCCC Secretariat

Ministry of Foreign

Affairs of Japan

Inventory Submission

(Climate Change Policy Division, Global Environment Bureau)

Responsible for Inventory Compilation

Inventory Request for inventory compilation

Private Consultants



Phase 4 (2002-2008)

inventory QC & consider

inventory improvements



GIO was established to fulfill the KP requirement.

Committee for the GHG Emissions Estimation Methods

Review and approval of estimation methodologies (QA)

UNFCCC Secretariat Inventory Submission Ministry of Foreign Affairs of Japan Inventory Submission Request for reviewing NIR&CRF Ministry of the **Environment** Request for (Climate Change Policy revisina NIR&CRF Division, Global Environment (QC) Bureau) Data request Responsible for **Inventory** Data provision **Compilation** Data GIO request (in NIES/CGER) Data Implementation of Request for inventory provision

QC & consideration of inventory improvements

Private Consultants

Relevant Ministries

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, Transport and Tourism

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Ministry of Finance

Ministry of Internal Affairs and Communications

Ministry of the Environment (Other sections)

Other Stakeholder Organizations



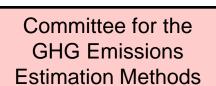
Institutional arrangement (2009-)

revising

Private Consultants

NIR&CRF (QC)





Review and approval of estimation methodologies

GHG Inventory **Quality Assurance** Working Group

Expert Peer Review of inventory (QA)



UNFCCC Secretariat Inventory Submission Ministry of Foreign Affairs of Japan Inventory Submission Request for reviewing NIR&CRF Ministry of the **Environment** (Low-carbon Society **Promotion Office, Global Environment Bureau)** Data request Responsible for Inventory **Compilation** Data GIO request (in NIES/CGER) Request for Request for

reviewing NIR&CRF

Relevant Ministries

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, **Transport and Tourism**

> Ministry of Agriculture, Forestry and Fisheries

Ministry of Health, Labour and Welfare

Ministry of Finance

Request for

NIR&CRF

revisina

(QC)

Data provision

Data

provision

Ministry of Internal Affairs and Communications

Ministry of the Environment (Other sections)

Other Stakeholder Organizations

Summary



- Japan's national system has been developed to meet requirements of the Convention and the Kyoto Protocol, especially with a focus on the latter.
- The establishment of the Greenhouse Gas Inventory Office (GIO) in 2002 was at the core of the development of the National System.
- Organizing a National System for inventory compilation takes a long time, but is a necessary element for periodical national GHG inventory preparation.
- It ensures time-series consistency and effective compilation of inventory.





Greenhouse Gas Inventory Office of Japan 温室効果ガスインベントリオフィス

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About GHG Inventories

What We Do

Activity History

FAQ

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Search

Welcome to the Website of the Greenhouse Gas Inventory Office of Japan (GIO)

To promote the prevention of global warming, GIO is engaged in the development of annual greenhouse gas inventories and the national inventory report, which involves the necessary tasks such as international response, and conducts research that is needed for inventory preparation and utilizes developed inventories.

Under the Kyoto Protocol that Japan ratified in June of 2002, the greenhouse gases subject to the quantified reduction commitments are carbon dioxide (CO $_2$), methane (CH $_4$), nitrous oxide (N $_2$ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF $_6$). These quantified reduction commitments have been established for each country. During the first commitment period, from 2008 to 2012, Japan has committed to reducing these greenhouse gases by 6% from the base year's emissions (1990 for CO $_2$, CH $_4$, and N $_2$ O, while 1995 for HFCs, PFCs, and SF $_6$). Therefore, accurate emissions inventories are more essential than ever. All developed countries have been responsible for the development of the national inventory on emissions and removals of greenhouse gases mentioned above by one year prior to the first commitment period (2007). The greenhouse gas inventories are crucial databases to report the achievement on the reduction commitments under the Kyoto Protocol.

October 6, 2007 Greenhouse Gas Inventories in Asia May 16, 2008 The GHGs Emissions Data of Japan (2006) May 16, National GHGs Inventory Report of JAPAN (2008) December Renewal "National GHGs Inventory Report of JAPAN (2007)"Ver.5.0 December Agenda of the 5th Workshop on Greenhouse	What's New!								
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Thank you

GIO Website

http://www-gio.nies.go.jp/index.html