

# Current Status of the GHG Inventory in Japan

Mimi Nameki  
Deputy Director  
Climate Change Policy Division  
Global Environment Bureau  
Ministry of the Environment

Workshop on GHG Inventories in Asia Region  
February 7-8, 2005



環境省

Ministry of the Environment

Ministry of the Environment

## Outline

- National Level: Japan's National Inventory
  - Background
  - Trends in overall emissions and removals
  
- Local Level: Guideline for local governments
  - to promote local activities against Climate change by establishing area specific action plan, Global Warming Countermeasures Area Promotion Plan
  - Plan, Do, Check, Action

*How we actually use Inv as a basis of policy making*

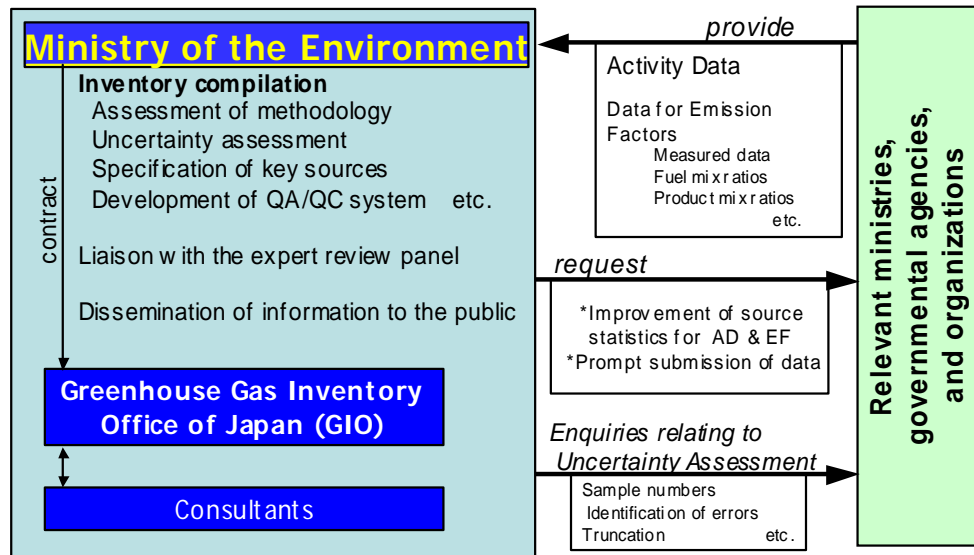


環境省

Ministry of the Environment

Ministry of the Environment

## Current Institutional Arrangement



環境省

Ministry of the Environment

Ministry of the Environment

## Current Institutional Arrangement

- “the Committee for the GHGs Emissions Estimation Methods”, since 1999,
- Members: external experts, approximately 60
- The committee is in charge of methodological development of the inventory

Committee for the GHG Emissions Estimation Methods

Inventory Working Group  
(crosscutting issue)

6 subgroups (for each sector)

Energy and Industrial Processes

Transportation

Agriculture

Waste

F-gas

LULUCF



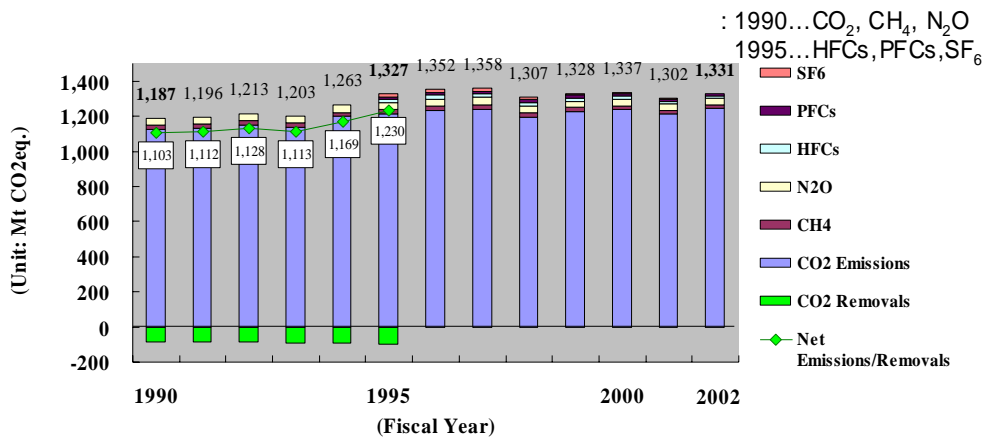
環境省

Ministry of the Environment

Ministry of the Environment

## Trends in overall emissions and removals

- Overall emission of GHGs:
  - 1,331 [Mt CO<sub>2</sub> eq.] in 2002 (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>)
- Increased by 7.6% since KP's Base Year



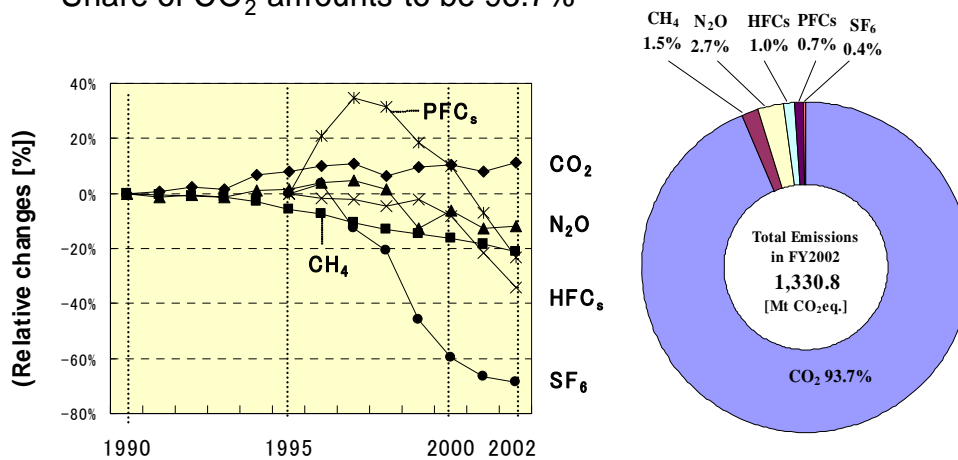
環境省

Ministry of the Environment

Ministry of the Environment

## Trends in overall emissions

- CO<sub>2</sub> +11.2%, CH<sub>4</sub> -21.1%, N<sub>2</sub>O -11.9% (since 1990)
- HFCs -34.1%, PFCs -23.4%, SF<sub>6</sub> -68.7% (since 1995)
- Share of CO<sub>2</sub> amounts to be 93.7%

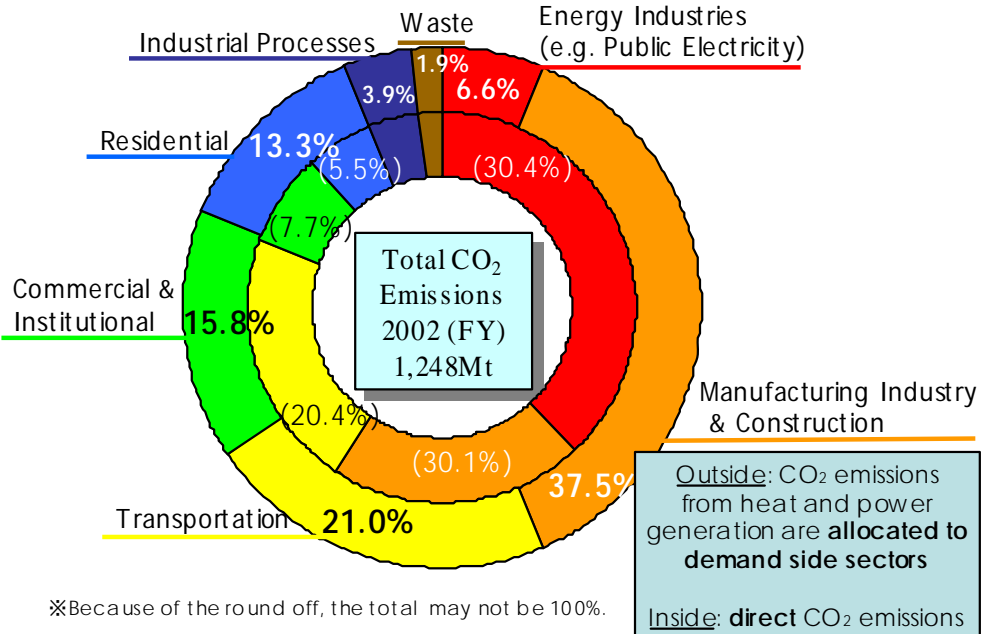


環境省

Ministry of the Environment

Ministry of the Environment

## CO<sub>2</sub> Emissions by Sectors in 2002

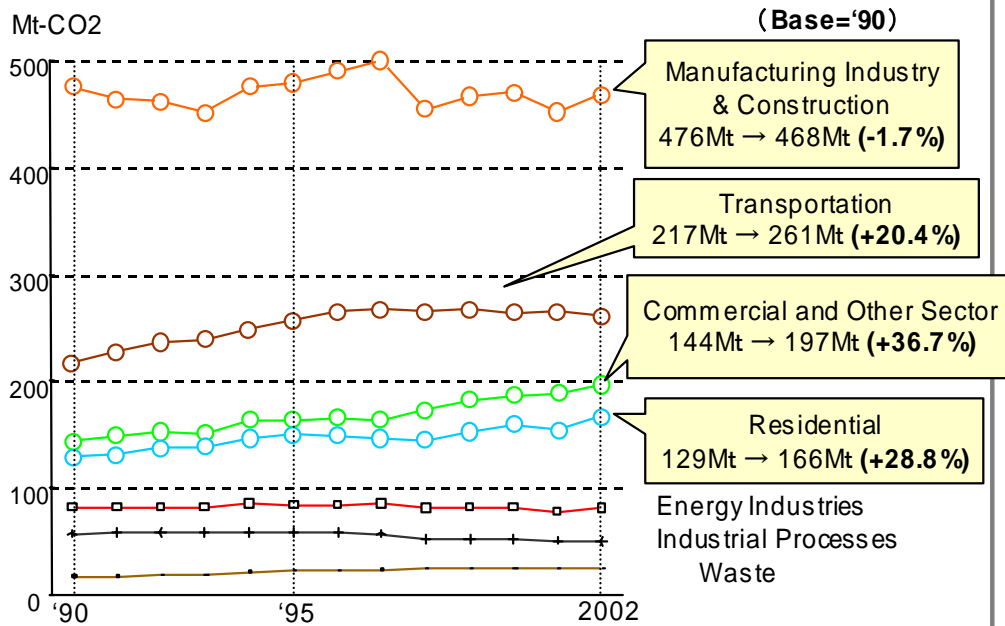


環境省

Ministry of the Environment

Ministry of the Environment

## Trends of CO<sub>2</sub> Emissions of each Sectors

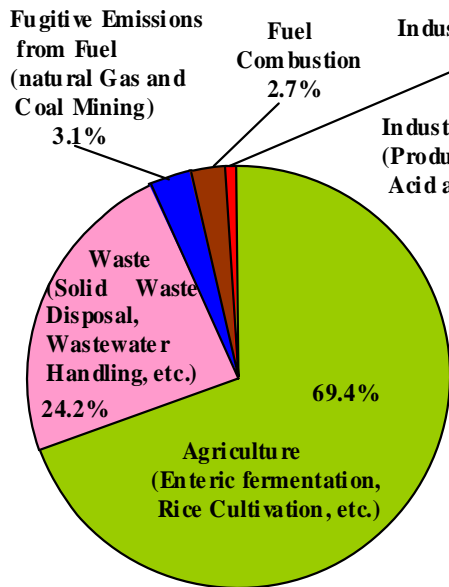


環境省

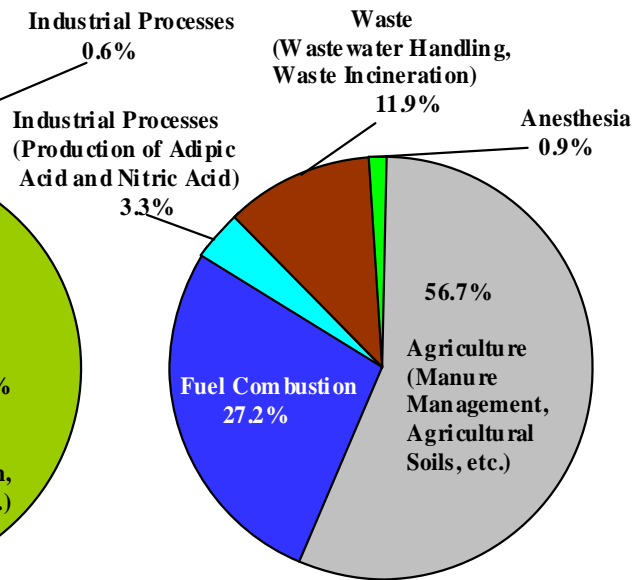
Ministry of the Environment

Ministry of the Environment

## ● Methane (CH<sub>4</sub>)



## ● Nitrous Oxide (N<sub>2</sub>O)

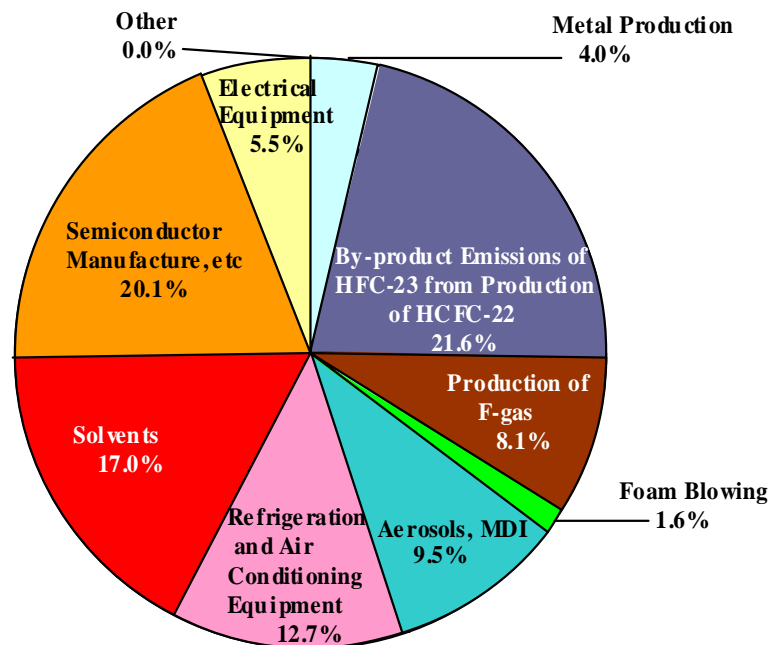


環境省

Ministry of the Environment

Ministry of the Environment

## ● HFCs, PFCs and SF<sub>6</sub>



環境省

Ministry of the Environment

Ministry of the Environment

# **Guideline to Establish Global Warming Countermeasures Area Promotion Plan**

## **Guideline for Local Governments**

### *Background*

---

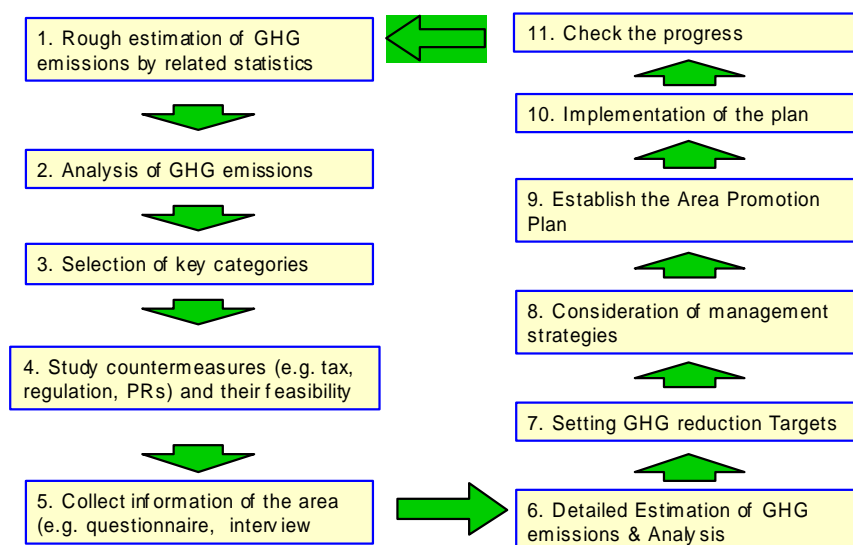
- **1990: Action Program for Arrest Global Warming**
- **1993: Guideline to Establish “Global Warming Countermeasure Area Promotion Plan”**
- **2002: Revision of “Law to Promote Global Warming Countermeasures”**
  - Each Entities’ (National Government, Local Government, Enterprising body, Citizen) responsibilities are clearly indicated
  - Under this Law, Local Governments are encouraged to promote their area specific plan of GW countermeasures
- **2003: Revision of Guideline to Establish “Global Warming Countermeasure Area Promotion Plan”**

## Objective of the Guideline

- **To facilitate Local Government establishing GW Countermeasure Area Promotion Plan**
- **The Guideline is:**
  - to grasp the actual GHG emissions to find the key emission sources to be addressed**  
(geographical, socio-economical characteristics need to be considered)
  - to evaluate the effects of conducted countermeasures against climate change**

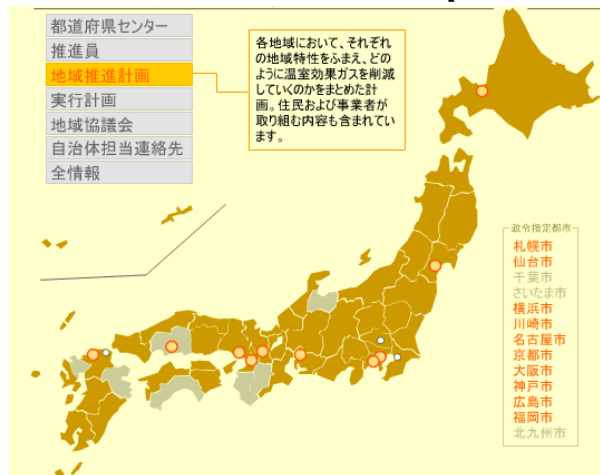
## Global Warming Countermeasure Area Promotion Plan

### Work Flow of the Area Promotion Plan



## Current Status

- **44 Prefectures and Large Cities** have established **GW Countermeasure Area Promotion Plans** as of April 2004



## Summary of the Guideline

### Target User

- **Prefectures (47)** and **Large Cities (13)** (government ordinance designated cities)
- **Municipalities** are also expected and encouraged to use the Guideline

### Target Coverage

- **GHG Emissions from any activities in the area**
- **Evaluation of countermeasures, which are strongly expected to promote in the area**



## G W Countermesure Area Promotion Plan

---

### Target Activities of Area Promotion Plan

- GHG emissions caused by anthropogenic activities in the area are expected to be covered.
- Activities are classified into 5 categories; Energy Industries, Manufacturing and Construction Industries (Blue Workers) , Resident & Commercial (White Workers and daily lives), Transport, Waste

### Relationship with category of GHG Inventory

<b>1. Energy Industries</b>	1 A fuel combustion, 1 B fugitive emissions
<b>2. Industries</b>	CO <sub>2</sub> allocated by electricity consumption* 1 A fuel combustion 2 Industrial Processes (incl. F-gas), 4 Agriculture
<b>3. Resident &amp; Commercial</b>	CO <sub>2</sub> allocated by electricity consumption* 1 A fuel combustion
<b>4. Transport</b>	1 A fuel combustion
<b>5. Waste</b>	6 Waste

\*These emissions are indirect emissions

## G W Countermesure Area Promotion Plan

---

### Policy and Measures of Local Government on Global Warming

- Countermeasures according to each local government's geographical & social-economical conditions
- Countermeasures need not to cover all activities
- Feasibility counts

### To Grasp the actual GHG emissions

- Estimate GHG emissions in the area, by category, and/or by gas
- Estimation methods are indicated in the guideline (Chapter 1 - 5)
- Each local government should choose methods taking into consideration its area-specific conditions

## Global Warming Countermeasure Area Promotion Plan

---

### Target of the Area Promotion Plan

- can be quantitative or qualitative
- each local governments' targets can be deferent according to its geographical and/or socio-economical characteristics

### Examples of Target,

- E1 : To reduce the certain % of **total GHG emissions in the area** compared to the base year by target year
- E2: To reduce the certain % of **GHG emissions related to domestic life** compared to the base year by target year
- E3: To reduce the certain % of **GHG emissions per capita** in the area compared to the base year by target year
- E4: "**Some**" **industrial segment** will reduce the certain % of total GHG emissions compared to the base year by target year

## Global Warming Countermeasure Area Promotion Plan

---

### Responsible Entity

- Countermeasures for all or main stakeholders in the area (citizens, companies and local government itself)
- Establishment of a forum for stakeholder dialogues is encouraged. (e.g. Local Conference for Global Warming Countermeasures)

### Target Period

- Revision in conjunction with the national Policy Programme is preferable.
- National Policy Programme on Climate Change takes step by step approach.
  - 1st Step: 2002 – 2004
  - 2nd Step: 2005 – 2007
  - 3rd Step: 2008 - 2012



Thank you !!



環境省

Ministry of the Environment

Ministry of the Environment