

**Developments relating to  
Ratification of Kyoto Protocol and  
Implementation of Anti-Global Warming Measures**

## **1. Past Government Actions**

At a February 13 meeting of the Global Warming Prevention Headquarters, the following matters were decided on in preparation for the ratification of the Kyoto Protocol by the end of 2002:

### **I Ratification Schedule**

All-out efforts to ensure Diet approval of the ratification of the Kyoto Protocol at its next ordinary session and the like

A review of the current Climate Change Policy Program

### **II Basic Direction of Domestic Measures**

#### **1 Basic approach**

1) An implementation mechanism that will ensure compatibility between the environment and the economy to be aimed for by taking advantage of the ingenuity and inventiveness of the business community.

2) A review, etc. to be conducted at key stages of progress.

2 All-out efforts to ensure the passage of the Anti-Global Warming Measures Promotion Law Amendment Bill and all related bills.

### **III International Cooperation in Fight against Global Warming**

Earnest efforts will be made to establish a level playing field where all countries take action under the same rules, particularly in terms of persuading the United States to take a constructive approach to the issue.

## 2. Outline of New Climate Change Policy Program

Greenhouse gas emissions to be cut by 6% from 1990 levels by 2010.

–2.5%	Control of the emissions of CO <sub>2</sub> , methane and other gases 1) Energy-related CO <sub>2</sub> (transportation, industrial and residential/commercial) .....±0% 2) Methane, nitrous oxide, etc. ....–0.5% 3) Development of innovative technologies and efforts of all sections of society .....–2%
+2.0%	Emissions of CFC-substitutes, etc.
–3.9%	Absorption by forests and other sinks
–1.6%	Utilization of Kyoto mechanisms (emissions trading, etc.)

## 3. Latest Developments

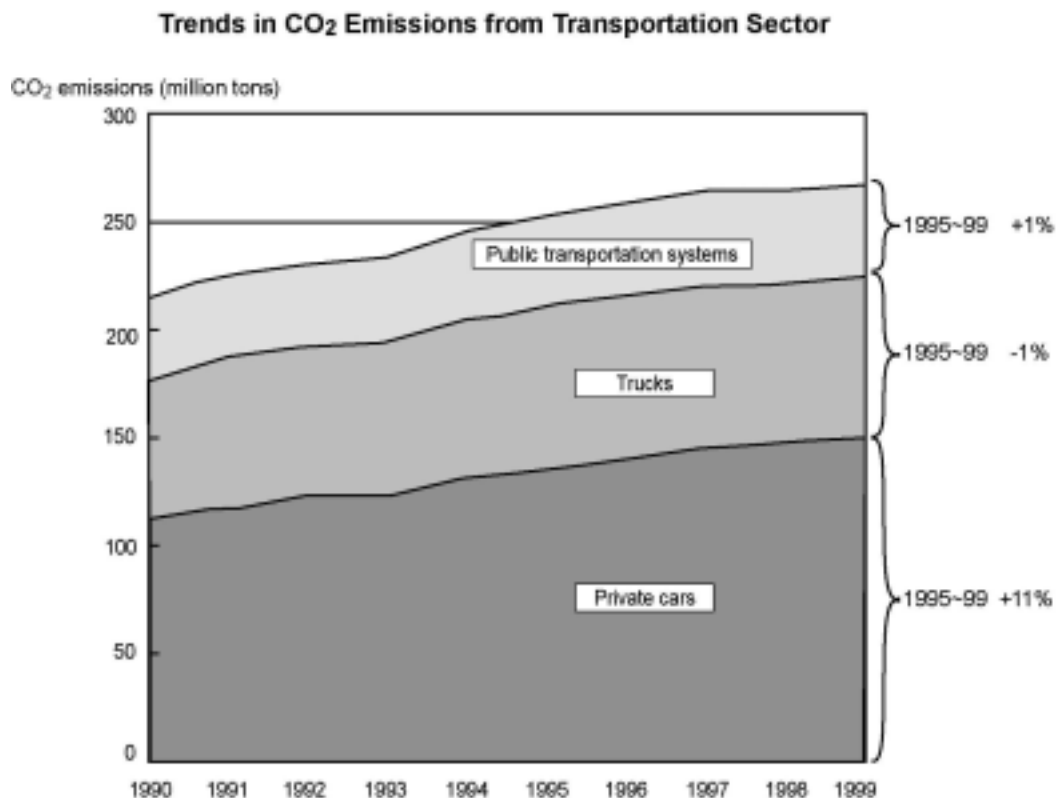
- March 19     Decision on an overhaul of the Climate Change Policy Program (a new policy program)
- March 29     Cabinet approval of the Kyoto Protocol and the Anti-Global Warming Measures Promotion Law Amendment Bill

## CO<sub>2</sub> Emission Reduction Plan of Ministry of Land, Infrastructure and Transport geared towards Ratification of Kyoto Protocol

### 1. Reduction of CO<sub>2</sub> emissions from transportation sector

To bring transportation sector CO<sub>2</sub> emissions in 2010 down to 1995 levels, measures capable of reducing them by about 46 million tons CO<sub>2</sub> need to be put in place.

- Motor vehicles are responsible for 88% of CO<sub>2</sub> emissions from the transportation sector.
- Although emissions from public transportation and freight transportation have stabilized in recent years (1995–99), emissions from private cars have been steadily rising.
- The reduction of CO<sub>2</sub> emissions from private cars is an urgent task.



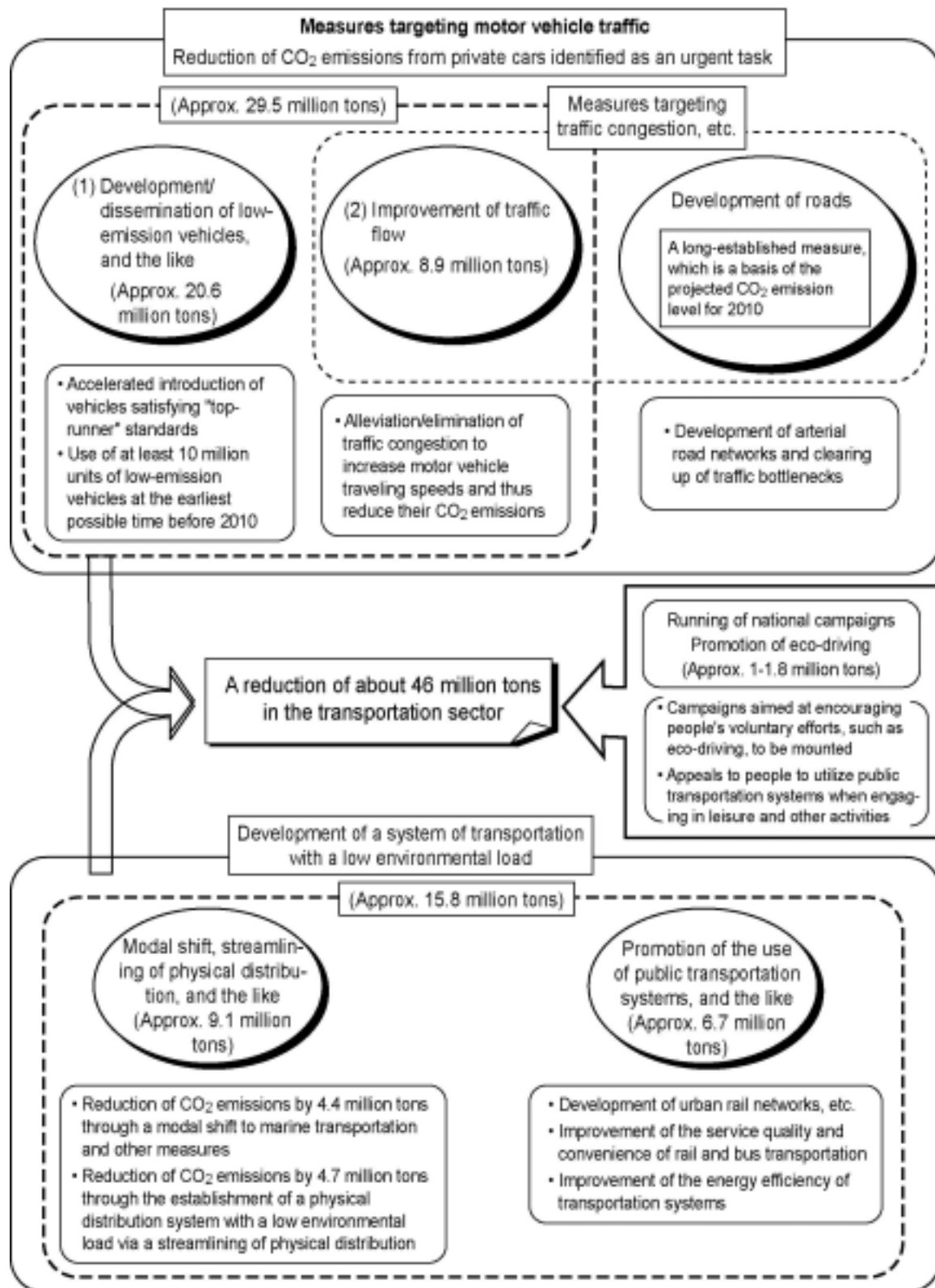
**Note:** The net change in CO<sub>2</sub> emissions from transportation sector from 1999 to 2000 is estimated to have been a 2% decrease.

	Transportation volume	CO <sub>2</sub> emissions (estimate)	Main contributing factors
Passenger transportation	-0.3%	-1.6%	<ul style="list-style-type: none"> <li>• Reduction of passenger car emission intensity by about 0.9%</li> <li>• Fall of private car passenger transportation volume by about 0.3%</li> </ul>
Freight transportation	+3.2%	-2.8%	<ul style="list-style-type: none"> <li>• Rise of the volume of efficient commercial truck transportation by about 4.1% and fall of the volume of inefficient private truck transportation by about 6.5% for a net increase in overall truck transportation volume of about 1.9%</li> <li>• Rise of domestic marine transportation volume by about 5.3%</li> </ul>

Source: Estimates by the Ministry of Land, Infrastructure and Transport based on FY 2000 Energy Supply and Demand Records (Preliminary Report), released on January 31

## Concepts behind Anti-Global Warming Measures in Transportation Sector

Measures center on **voluntary efforts**, **incentives** and **the development/introduction of new technologies** so as not to adversely affect the nation's economic activities and people's daily lives.

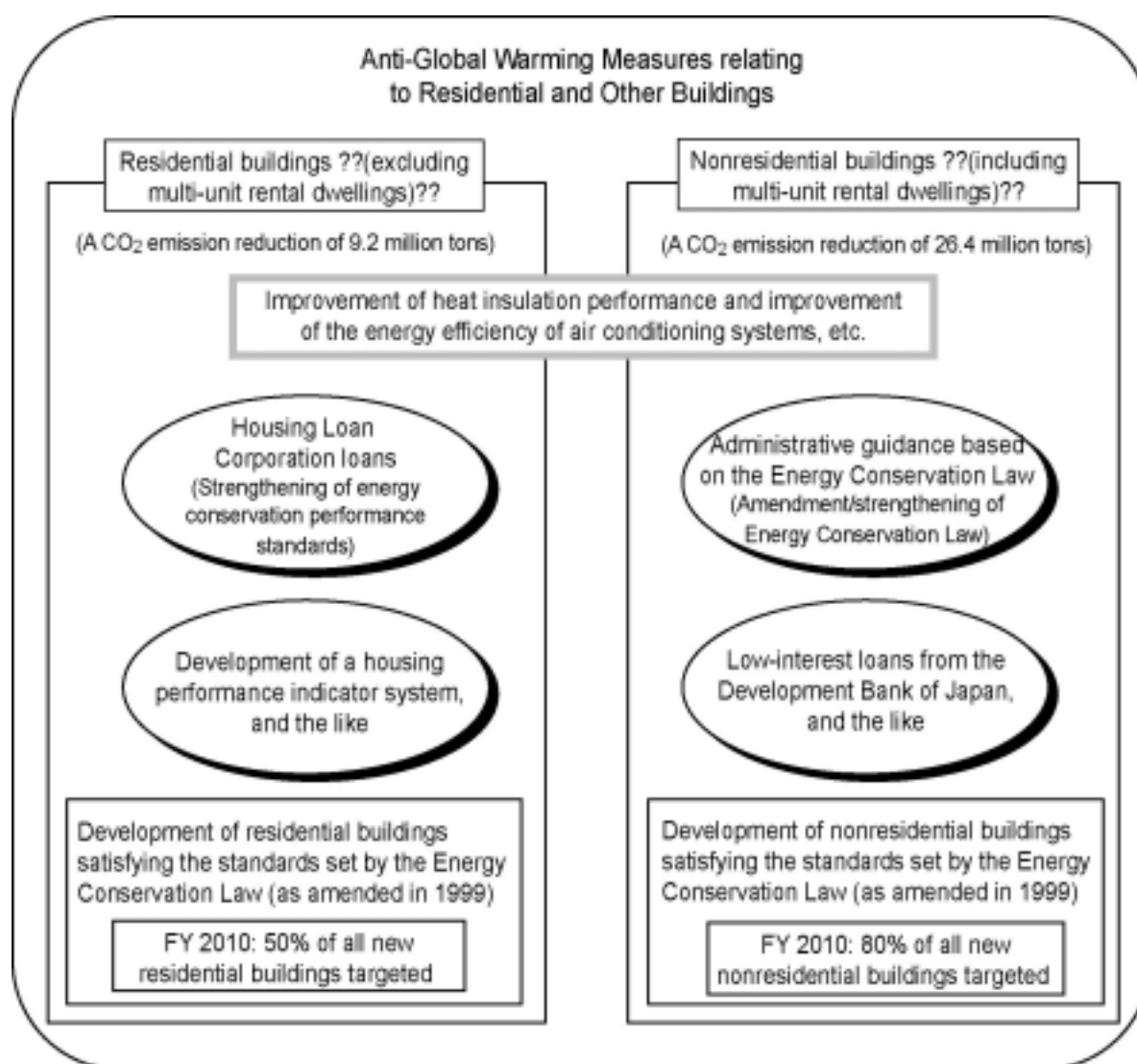


## 2. Plan for Reduction of CO<sub>2</sub> Emissions from Residential and Commercial Sector (Houses and Other Buildings)

Efforts in the residential and commercial sector focus on the reduction of CO<sub>2</sub> emissions resulting from energy consumption through measures targeting the design and construction of houses and other buildings, improvements in the energy efficiency of appliances and equipment, and the like.

The Ministry of Land, Infrastructure and Transport will implement measures targeting the design and construction of houses and other buildings, encompassing, among other things the improvement of their heat insulation performance and improvement of the energy conservation performance of air conditioning, lighting and hot water supply systems and other building service equipment.

(A CO<sub>2</sub> emission reduction of 35.6 million tons)



### 3. Nitrous Oxide Emission Control Measures

#### — Sophistication of combustion at sewage sludge incineration plants, and the like

Sewerage systems treat and dispose of human waste, domestic wastewater, commercial wastewater, etc. resulting from urban living. Sewage contains organic matter, nitrogen and other materials which could turn into non-energy-related greenhouse gases. To actively contribute to the fight against global warming, it is proposed to reduce nitrous oxide emissions through a sophistication of sewage treatment/disposal and improvement of treatment/disposal methods.

#### Reduction of Nitrous Oxide Emissions through Sophistication of Combustion at Sewage Sludge Incineration Plants and Like

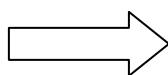
- Sophistication of combustion at sewage sludge incineration plants

Approx. 1.4 million tons CO<sub>2</sub>

- Introduction of high-temperature combustion to all polymer-dewatered-sludge fluidized-bed incinerators by stipulating “appropriate combustion temperature control” in the Sewerage System Planning and Design Guidelines



Introduction of high-temperature combustion (850°C)



- Thorough education on compliance with A Guide to the Formulation of Global Warming Action Plan for Sewerage Systems

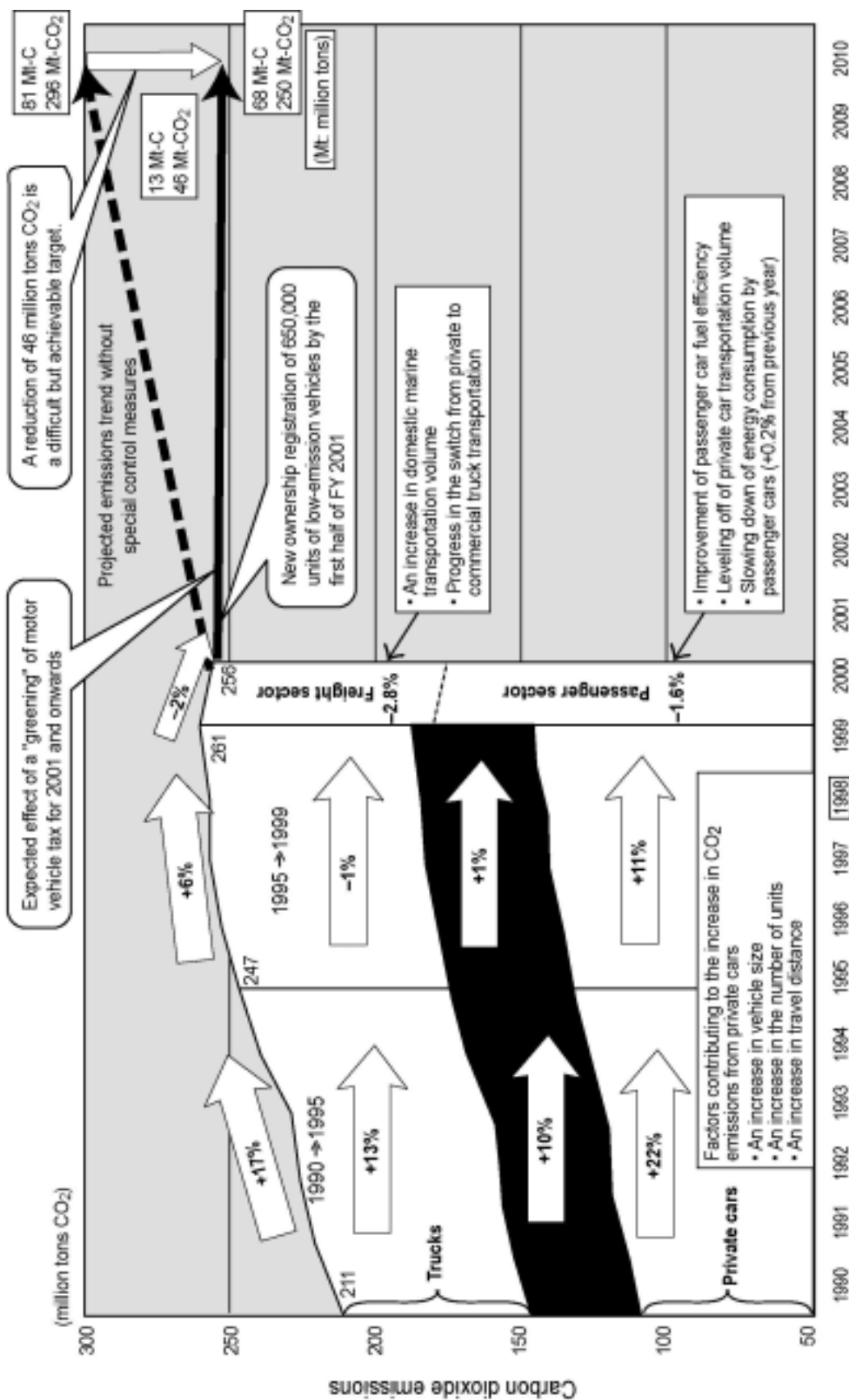
- Sophistication of sewage treatment/disposal

Approx. 600,000 tons CO<sub>2</sub>

- Curbing of N<sub>2</sub>O emissions attributable to human waste and domestic wastewater, particularly those generated in areas without access to a sewerage service, through the development of sewerage systems and sophistication of their management



## Trends in Carbon Dioxide Emissions from Transportation Sector



The CO<sub>2</sub> emissions figure for year 2000 is an estimate by the Ministry of Land, Infrastructure and Transport based on the FY 2000 Energy Supply and Demand Records (Preliminary Report), released on January 31.

Public transportation systems: buses, taxis, railways, passenger ferries, domestic marine transportation and domestic air transportation