

Preparation of domestic systems in Japan toward implementation of Kyoto Protocol



Yasuo Takahashi

Ministry of the Environment, Japan



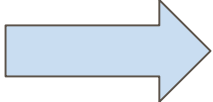
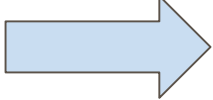
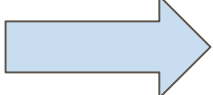
Background

- Kyoto Protocol(1997): 6% reduction
- Global Warming Prevention Headquarters (1997)
- Guidelines of the Measures to Prevent Global Warming (“action plan”)(1998)
- Law for Promotion of Policy and Measures on Climate Change (1998)
- Law concerning Rational Use of Energy (amendment, 1998)



Guideline of Measures to Prevent Global Warming (June 1998)

2010/1990

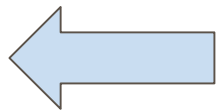
- Business as Usual +23.4%
- Domestic reduction  -0.5%
- Domestic sinks  -4.2%
- Kyoto Mechanisms  -6.0%



Interim Report by the Central Environment Council(July, 2001)

- Global Environment Council

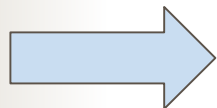
- Subcommittee for Establishing a Scenario for Achieving the Kyoto Target
- Subcommittee for New Policies for Achieving the Kyoto Target



Public comments

Prediction of GHGs in 2010

- Base Year(1990/1995) 100 (=1,210 Mt CO₂)
- 1998 106
- 2010 121(Without measures)
108(With measures)
94(Kyoto target)



Additional measures are required



Emissions Reduction Potential

(from technological standpoint)

- CO₂ from energy 0 ~ -2 %
- CO₂ from non-energy -1 ~ -2 %
- CH₄, N₂O
- HFC,PFC,SF₆ -3 %
- Total -4 ~ -7 %

(Based on the assumption that generated electric power volume by thermal power will be reduced through the reduction of electric power consumption)



Emissions reduction volume by additional reduction cost

■ Less than 0 yen	3.7%
■ 0-5,000yen	1.1%
■ 5,000-10,000yen	0.9%
■ 10,000-50,000yen	3.5%
■ 50,000-100,000yen	1.2%
■ >100,000yen	2.2%

(yen/tC)

Economic efficiency based on a quantitative model

- Results of six kinds of economic analysis models

- Carbon tax(13,000-35,000yen/tC)



-2 % GHG(2010/1990)

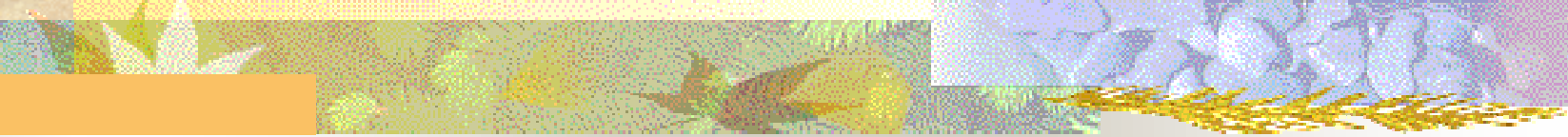
-0.06-0.72% GDP

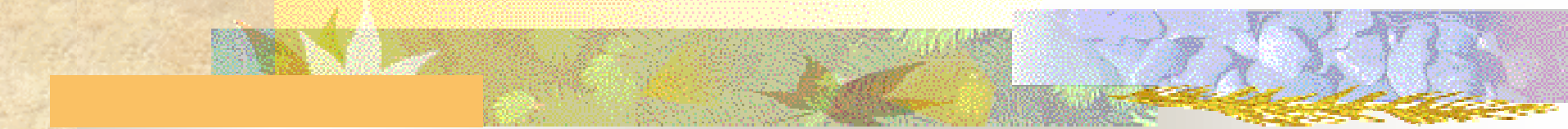
(compared to without carbon tax)



New Policies for achieving the Kyoto Target

- **Organized promotion of measures to prevent global warming**
 - Establishment of plans by the Governments
 - Establishment of plans by local authorities
 - Organized efforts by the business sector
- **Systems for self-controlled emissions**
 - Notification and opening of the data of GHG emissions resulting from business activities
 - Notification of GHGs emissions from the use of household electricity, gas and water services

- 
- **Cross-sectional system for emissions reductions among industrial, commercial/residential and transportation sectors**
 - Agreements between businesses and governments
 - Domestic emissions trading system
 - Greenhouse gas tax/levy
 - **Systematic provisions for each sector**
 - Improvements of emission sources
 - Greening of traffic system
 - Lifestyle
 - Non-energy sources
 - Urban/local infrastructure

- 
- Domestic system for exploitation of Kyoto Mechanisms
 - Scheme for follow-up of plan and review of measures