

Interim Report  
by  
Global Environmental Subcommittee  
Industrial Structure Council

*Perspectives and Actions  
to Construct a Future Sustainable  
Framework on Climate Change*

METI, Japan

## What is the Industrial Structure Council?

- It is an Advisory body for the Minister of Economy, Trade and Industry (METI). The Minister asks for the council for advice on basic direction of industrial policy regarding various important issues. The council usually consists of prominent persons from various fields including industry, academics and NGOs. There are varied subcommittees under the council and the Global Environmental Subcommittee is dealing with the global environmental issues including climate change.
- The subcommittee has been carefully studying a future framework on climate change at its five sittings. Based on the discussion at those five meetings, the subcommittee has drawn up this Interim Report.

# Introduction

1. *The Kyoto Protocol is an important first step toward long-term efforts to address the climate change.* However,
  - The United States, the world's largest greenhouse gas emitter, has announced its intention not to ratify the Kyoto Protocol.
  - The Kyoto Protocol does not require developing countries to cut emissions while their emissions are predicted to exceed those of developed countries.
2. The Kyoto Protocol mandates commencement of discussion about the next commitment period by the end of 2005. It is *not too early to now start consideration on the future framework beyond 2012.*
3. *This interim report is aimed to bring forward a basis for discussions both domestically and internationally on the future framework beyond 2012.*

# 1. Characteristics of the Global Warming Issue

## (1) Global Public Goods

- need to address free-rider problem
- need to take a facilitative, rather than strict or punitive, attitude towards insiders

## (2) Long-Term Challenge Requiring a Technological Breakthrough

- with due consideration to the lead time needed for the development and diffusion of alternative technologies

## (3) Challenge Requiring an Effort to Achieve Cost Effectiveness

- while giving consideration to a difference in cost-bearing capacities among countries

## (4) Elucidation of the Mechanism of Climate Change is on going and uncertainties still remain

## 2. Characteristics of Kyoto Protocol

### (1) Kyoto Protocol does not cover the majority of the globe

- Currently dealing with approximately One-Third of the World's Greenhouse Gas Emissions
- The top five countries account for about half of the world's total emissions

Figure: Prospects for World CO<sub>2</sub> Emissions

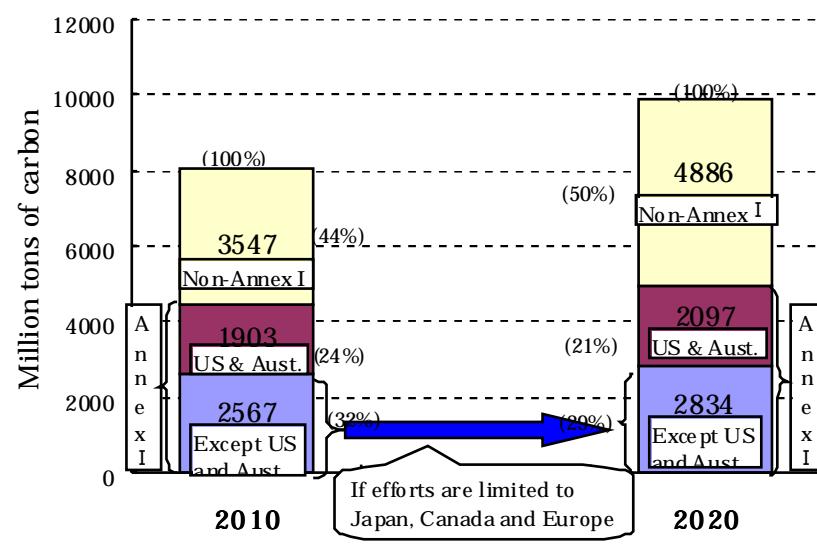
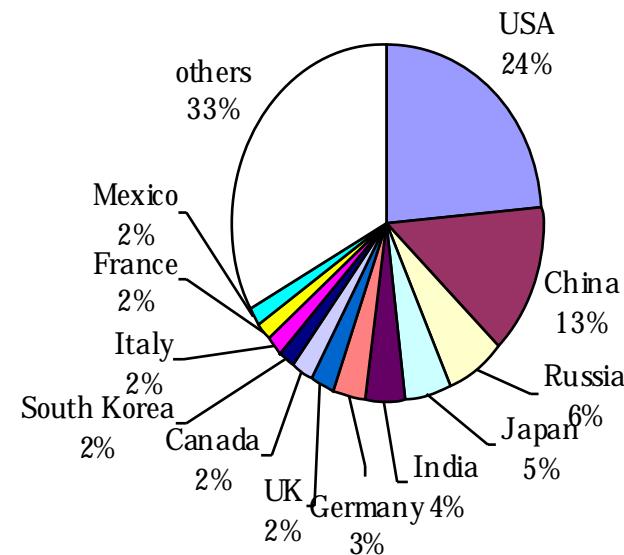


Figure: The World's Energy-Related CO<sub>2</sub> Emissions in 2000



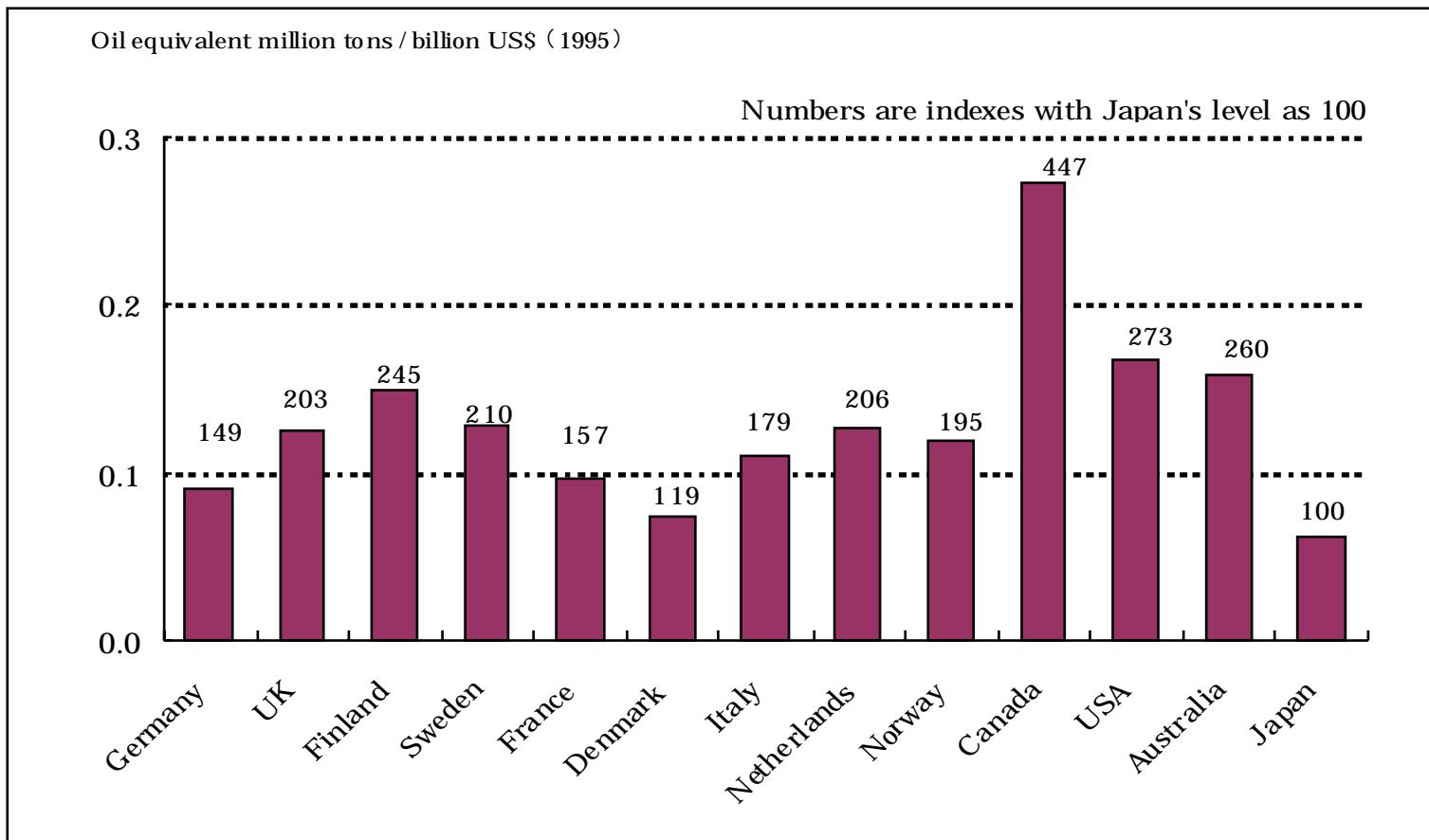
## (2) Commitment to Reduce Total Amount of Emissions by Countries

- Given the market economy, *there is a limit in the government's ability to keep the total amount of emissions within a certain range*
- *The reduction targets fell short of a scientific and objective basis of calculation* (Is there any rationale for difference among Parties?)
- Does the target *satisfy equitable principle?*

### (3) Difficult issues associated with Numerical Targets

#### 1) Differences in the Relative Difficulty of Accomplishing Reduction Targets

Figure: Energy Efficiency Indicators in Major Developed Countries in 2000



(Source): OECD/IEA, Energy Balances of OECD Countries

### (3) Difficult Issues Associated with Numerical Targets (cont.)

2) Base Year. -*A hurdle race. The same distance but very different hurdles among runners.*

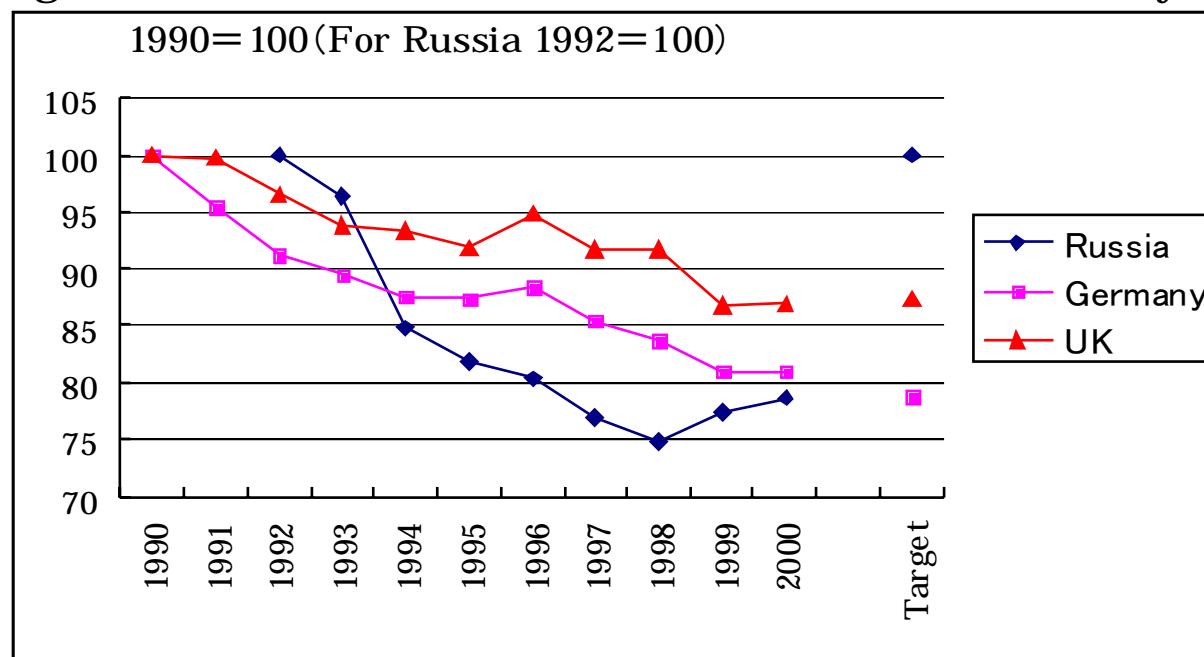
- *The year 1990 has a special characteristics.*

Russia : economic transition process

Germany: unification of east and west Germany,  
shift from coal to gas, etc.

UK : shift from coal to gas, etc.

Figure: Carbon dioxide emissions in Russia, Germany and UK



(Source): IEA, CO2 Emissions from Fuel Combustion

### (3) Difficult issues associated with Numerical Targets (cont.)

- 3) EU's Joint Fulfillment, "EU Bubble" -*Internal Flexibility vs. External Fairness*
- 4) Non-Compliance -*Penalties for insiders nothing for outsiders*
  - The Kyoto Protocol is severe for insiders but more tolerant for outsiders. The Kyoto Protocol applies severe scheme to the countries that commit the reduction targets thereof, while it has no measures against countries that are not the Parties to the Kyoto Protocol.

## 4. Four Basic Concepts for a Sustainable Framework

- (1) Focus on the technological solution from a long-term perspective, Long-term perspective will also enable us to
  - change our life-style
  - build energy infrastructure
- (2) Simultaneous achievement of 3Es (effectiveness, efficiencies and equity),
  - Cover most of global greenhouse gas emissions
  - Pursue cost-effectiveness
  - Have rational and logical explanation on each country's commitment on the basis of the bottom-up type analysis and discussions.

## 4. Four Basic Concepts for a Sustainable Framework (cont.)

### (3) Contribution both to economy and environment,

- Large costs to promote technological development and dissemination can be born only through economic development

### (4) Multi-stakeholder participation.

- Involvement of not only nation-states but also the entities of broader scope and levels including regions, sectors, industries, and individuals.
- Commitments on qualitative aspects such as technological standards, R&D, etc. as well as the quantitative aspect.
- Search for various options suitable to each entity based on its capacity and responsibility.

## 5. Actions toward Constructing a Sustainable Future Framework

### (1) Multi-Facet Approach

- *Governments should* not only negotiate for treaties and protocols, but also *broadly conduct international coordination of regional, bilateral and other levels*. In parallel, *industries, NGO's, and individuals respectively can build their own feasible international agreements and commitments*.
- *Sectoral approach* for each of sectors including industry, transport and residential, or fields of industries *would lead to more practical solutions with more extensive equity*.
- Not only the total amount of emissions but also *various aspects such as technological standards, R&D policy should be discussed as other alternative forms of commitment*.
- Not only environmental ministers but also *economy and energy ministers of each country should be involved* in active discussion

## 5. Actions toward Constructing a Sustainable Future Framework (cont.)

### (2) Major Emitters' Initiative

- *Discussions among major emitting countries would pave the way for a truly feasible and effective framework.*