



Ministry of the Environment
Japan

Report of Discussions on International Climate Change Strategy

September 2004

Sub-Committee for
International Climate Change Strategy
Global Environment Committee
Central Environment Council

Report of Discussions on International Climate Change Strategy

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Report of Discussions on International Climate Change Strategy (Summary)

Preface

In January 2004, the Global Environment Committee of Japan's Central Environment Council published an Interim Report, "Climate Regime Beyond 2012: Basic Considerations." In this paper, the Committee has spelled out the basic considerations that will guide the Government of Japan as negotiations are launched on the climate regime beyond 2012 (hereinafter referred to as "the next regime") that aims to build a common framework in which all countries of the world can join.

In order to collect and organize the materials needed to put the considerations in the Interim Report into more concrete terms, the Committee set up an expert committee to consider Japan's international climate change strategy and began its discussions in April 2004. This "Report of Discussions" was compiled to sum up the progress in discussions up to this point, in order to help promote and guide further discussion in the expert committee.

1. The Goal in Addressing Climate Change

1.1 Meeting the Ultimate Objective of the UNFCCC

The goal for the international community in addressing climate change is to meet the UNFCCC's ultimate objective: "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

1.2 Stabilization of GHG Concentrations

Atmospheric concentrations of greenhouse gases (GHG) become stable when GHG emissions in the atmosphere reach equilibrium with the capacity of sinks in marine and terrestrial ecosystems. However, atmospheric GHG concentrations continue to rise because GHG emissions are exceeding the capacity of sinks.

1.3 Stabilization Levels of GHG Concentrations

Various emission paths lead to various stabilization levels of GHG concentrations can be described. It should be noted, however, that even after emissions have been reduced, CO₂ concentrations will not stabilize until 100 to 300 years later, and temperatures after several hundred years.

1.4 Impacts of Climate Change

- The IPCC Third Assessment Report concludes that most of the warming observed over the last 50 years is attributable to human activities.
- The impacts of climate change have already begun to appear around the world, including Japan. The IPCC Report shows that the risks associated with climate change will increase with higher temperatures and that if temperatures rise about two degrees Celsius over the next 100 years, the distribution of negative impacts will begin to extend to most regions of the world.
- The level of impacts will vary depending on the country or region. The risk of adverse effects will increase as the rate and scale of temperature changes increase.
- In recent years, extreme weather events are occurring frequently around the world. There is a concern that climate change could result in more frequent and more severe extreme weather events, with increasing damage.

2. Approaches for Achieving the Ultimate Objective of the UNFCCC

2.1 International Consensus on Stabilization Levels of GHG Concentrations

- In setting specific numerical targets that correspond to the UNFCCC's ultimate objective, the time lags between the stabilization of GHG concentrations, temperature increases, etc. and the occurrence of impacts should be fully taken into account.
- Even when progress is made in reducing emissions, some impacts are inevitable, especially on highly vulnerable natural ecosystems. For this reason, consideration should be given not only to emission reduction but also to the inevitable impacts of climate change.

2.2 Equity Issues to Consider in Examining the Establishment of a Stabilization Level

One characteristic of the climate change issue is that it involves two types of equity issues. One involves equity between GHG emitting countries and countries vulnerable to the adverse effects of climate change (mainly developing countries). For example, 84 percent of global emissions are

attributable to 40 countries, while 71 countries that are highly vulnerable to impacts of climate change account for about one percent of global emissions. The other involves equity between present and future generations; GHG emissions from the current generation will affect human health and welfare in the future. In addition, it should be noted that per capita emissions in developing countries are still relatively low.

2.3 Environmental Risk Management on a Global Scale

- Global risk management is needed to address climate change.
- Although some scientific uncertainty still remains, there is little room for doubt that climate change is in progress and will proceed further, and that unless prompt, far-reaching and powerful measures to reduce emissions are taken, there is the danger that substantial adverse impacts will occur in future.

2.4 Building a Global System to Initiate an Emission Reduction Trend by 2050 at the Latest

- Various CO₂ stabilization levels can be assumed, but in order to achieve a stabilization level of 550ppm, which is approximately twice what it was before the Industrial Revolution, global CO₂ emissions must enter a downward trend between 2020 and 2030.
- The important question is what type of global system will be established in the next 10 to 20 years. The scientific background necessary for making the relevant decisions is already available, and realizing the establishment of a global system now depends on political decision-making.

2.5 Two Types of Measures; Mitigation and Adaptation

- Mitigation measures –reducing GHG emissions and enhancing CO₂ sinks- are the fundamental measures for addressing climate change. At the same time, the inevitable impacts of climate change should also be taken into consideration. Thus, adaptation measures are required to moderate and prevent damage as a complement to mitigation measures.
- With respect to the cost of climate change related measures, the costs of adaptation and of damage from climate change given insufficient adaptation should be taken into account as well as the costs of emission reduction measures.

3. Setting Targets in the Short, Medium, and Long Term

In order to meet the ultimate objective of the UNFCCC, setting targets in the medium term (2030-2050) and long term (after 2100), in addition to short term (until around 2020), will promote effective global risk management.

4. Socio-Economic Development Scenarios and Climate Change Initiatives

- The future paths and volumes of GHG emissions will greatly differ depending on what kind of socio-economic development takes place. Thus, socio-economic development processes that internalize GHG emission regulation need to be sought as soon as possible.
- The kind of socio-economic development processes each country or region needs to follow should be considered as well, with reference also to the unique circumstances of each country or region.

5. The Role of Technology

5.1 Technology Needed to Create a Society Designed to Address Climate Change

In order to reduce greenhouse gas emissions, the ratio of carbon intensity in energy needs to be lowered more quickly than has been seen in historical precedent, so the development and broad-scale diffusion of technology in the field of low-carbon emission will be important.

5.2 Time and Pre-conditions Necessary for Technology Development & Diffusion

The development and diffusion of technology is concerned not only with single, self-contained technologies, rather, technology must be viewed in the context of the entire systems that support it. Also, in diffusing technology across international borders as opposed to within a single country, various types of difficulties arise at every level, resulting in the likelihood that global-scale diffusion may require several decades.

5.3 Approaches for Promoting Technology Development & Diffusion and the Role of Government

To promote technology development & diffusion, a balance is needed between demand-side technology, which is developed and diffused mainly through the establishment of goals and

standards, and supply-side technology, which is promoted mainly through the provision of subsidies for research, development and diffusion. Government also has a major role to play in technology development and diffusion.

5.4 Strategy for Future Development & Diffusion of Technology on a Global Scale

In view of the inertia inherent in climate system, characteristics of energy systems, and the time needed for the development & diffusion of technology, measures need to be taken as soon as possible in order to avoid the risks posed by global warming. Thus, while taking a long-range view in promoting the development of innovative technology that can potentially achieve substantial emission reductions, during the next few decades existing technologies need to be applied to the maximum extent possible.

6. Further Points to Consider in Creating a Society Designed to Address Climate Change

The issue of climate change is one that humankind will unavoidably have to deal with over the next 100 or more years. Thus, it would be best if this issue could be dealt with in a more forward-looking manner, and a more positive attitude adopted in seeking to create a society designed to address climate change. Also, Japan is expected to take on this issue using a well-defined strategy.

Preface

<"Climate Regime Beyond 2012: Basic Considerations" Interim Report of the Global Environment Committee of Japan's Central Environment Council>

- In January 2004, the Global Environment Committee of Japan's Central Environment Council published an Interim Report, "Climate Regime Beyond 2012: Basic Considerations." In this paper, the Committee has spelled out the basic considerations that will guide the Government of Japan as negotiations are launched on the climate regime beyond 2012 (hereinafter referred to as "the next regime") that aims to build a common framework in which all countries of the world can join.

- The Interim Report of the Committee spells out the following seven basic considerations in approaching the issue of the climate regime beyond 2012.
 - (1) Maintaining Progress towards Meeting the Ultimate Objective of the UNFCCC
With respect to the climate regime beyond 2012, it is vital to maintain progress in order to meet the ultimate objective of the UNFCCC, that is, to ensure the environmental integrity of the climate regime.

 - (2) Bringing the Kyoto Protocol into Effect and Fulfilling Commitment
The Kyoto Protocol has taken the first step towards achieving specific reductions of GHG emissions. In approaching the climate regime beyond 2012, Japan should first of all make efforts to bring the Protocol into effect and fulfill its commitment.

 - (3) Achieving Global Participation
Ensuring environmental integrity of the climate regime requires global participation. The climate regime beyond 2012 needs to be built so as to achieve the participation of all countries, including the USA and developing countries.

 - (4) Ensuring Equity Based on the Principle of Common but Differentiated Responsibilities
In accordance with the principle of "common but differentiated responsibilities" in Article 3.1 of the UNFCCC, equity needs to be ensured between developed and developing countries, among developed countries and among developing countries. Differentiated commitments need to be developed that accord with diverse national circumstances.

 - (5) Negotiations Building on Existing International Agreements

International negotiations on climate change resulted in the adoption and entry into force of the UNFCCC, and culminated in the adoption of the landmark Kyoto Protocol; negotiations have continued subsequent to the adoption of the Protocol. Through such invaluable efforts and agreements, a common ground is being built for countries to take measures to address climate change. Building on these international agreements that serve as the basis for negotiating the climate regime beyond 2012, further discussions are necessary on how to develop and improve the architecture of the Convention and the Protocol, bearing in mind such considerations as the need for maintaining progress towards meeting the ultimate objective of the UNFCCC and for achieving global participation.

(6) International Consensus-Building by National Governments with the Participation of Various Actors

National governments are held responsible for the international regime, and it is important that they achieve a consensus in the process of international negotiations, while disclosing relevant information and ensuring the participation of various actors, such as businesses and non-governmental organizations.

(7) Making the Environment and Economy Mutually Reinforcing

In order to sustain efforts over a long period of time, we need structural reforms of the economy that aim to build a mutually reinforcing relationship between the environment and economy. This relationship is like a 'virtuous circle,' in which each component enhances the other's quality, so that combating climate change contributes positively to economic development, and vice versa. Technology will play one of the most important roles in promoting such reforms.

<Establishment of the Sub-Committee and Its Approach>

- In the process of compiling the Interim Report, the Global Environment Committee invited public comment. As a result, 50 comments were submitted from inside Japan and 12 from overseas, and many of these called for studies on specific details of the next regime. In order to collect and organize the materials needed to put the considerations in the Interim Report into more concrete terms, in January 2004 the Committee set up an sub-committee to consider Japan's international climate change strategy.

- The sub-committee began its discussions in April 2004, roughly dividing the relevant issues into two categories (see Figure 0.1).

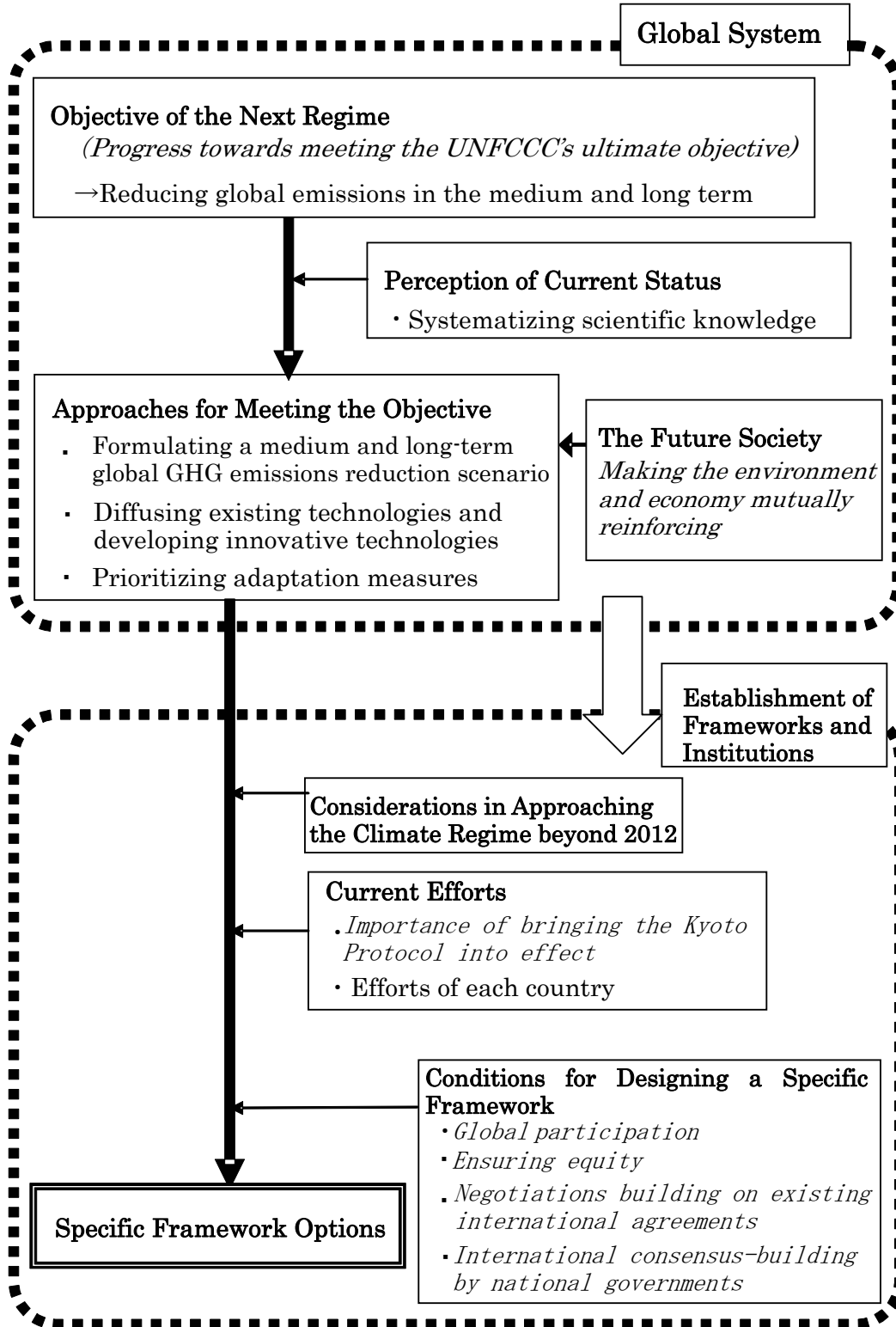
The first category addresses what a global system should be like. Legally, the goal of coping with climate change is supposed to aim at achievement of the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC). Because this objective is qualitative in nature, the issue at hand is how to set specific goals for the world as a whole. Such goals need to be established on the basis of scientific knowledge about climate change and on international agreements that function as policy judgments. Next, it is necessary to clarify the basic concepts of measures designed to meet the ultimate objective of the UNFCCC. Based on an understanding of these concepts, discussions on what approaches should be adopted are then needed in order to give shape to what is meant by "maintaining progress towards meeting the ultimate objective of the UNFCCC," one of the basic considerations recommended by the January 2004 Interim Report. Such discussions would also include "making the environment and economy mutually reinforcing" as the basis for an approach for meeting the ultimate objective in the next regime.

The second category of issues addresses the establishment of the next regime, that is, how to establish a global framework to tackle climate change in the years beyond 2012 that can realize the creation of the global system discussed in the first category. In accordance with the other considerations identified in the Interim Report, the aim of these discussions would be based on the principle of "ensuring equity based on the principle of common but differentiated responsibilities", and on "negotiations building on existing international agreements" through "international consensus-building by national governments with the participation of various actors", as well as to evolve global participation in order to prevent further climate change.

Also, the Government of Japan is promoting efforts to bring the Kyoto Protocol into effect and fulfill its commitments, and Government Councils such as the Central Environment Council are now going through a process of discussion regarding the review and assessment of Japan's Climate Change Policy Program.

- This "Summary of Discussions" was compiled to sum up the progress in discussions up to this point regarding a global system for taking measures to address climate change, in order to help promote and guide further discussion in the sub-committee.

Figure 0.1 Outline of Discussions regarding the Next Framework



Terms in italics refer to basic considerations in the Interim Report, "Climate Change Beyond 2012"