

Introduction and Welcome

Mr. Hironori Hamanaka
Director General
Global Environment Department
Environment Agency of Japan

Distinguished colleagues, ladies and gentlemen,

On behalf of the Environment Agency and the government of Japan, I would like to express my heartfelt welcome to all of you who have gathered here for this meeting of the Institutional Dimensions of Global Environmental Change research program. I would like to express my gratitude to everyone, especially those associated with the International Human Dimensions Program, the International Geosphere-Biosphere Program, and the Netherlands' Royal Institute of Environmental Studies, who has been involved in the preparation of this Conference. I believe this is an important effort in the international community's efforts to address climate change.

Throughout time, humanity has made use of the earth's natural resources to build prosperity. However, the explosive development of recent years has resulted in a broad range of problems in our global environment. In particular, since the time of the industrial revolution, large amounts of fossil fuels have been consumed. This is causing a rapid buildup of carbon dioxide in the atmosphere. The IPCC, in its Second IPCC Assessment Report, suggests that there is a discernable human influence on the global climate, and that climate change poses a potentially grave threat to human existence over the 21st century. In order to address this problem, we must continue and strengthen our efforts from a long-term perspective. However, the work in front of us, such as creating effective national and international institutions to combat climate change, is very challenging.

We have already taken an important first step in Kyoto in December, 1997, and progress has also been made in Buenos Aires in 1998 and Bonn in 1999, in pursuit of the ultimate objective of the climate convention. This is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Developed country Parties in Kyoto committed to ensure that their greenhouse gas emissions would not exceed their respective targets with a view to reducing their overall emissions by at least five percent below 1990 levels in the period from 2008 to 2012. In Buenos Aires, we agreed on a plan of action to make the Kyoto Protocol operational. Significant progress was made last year in Bonn in implementing this plan of action, and we look forward to reaching an agreement this November in The Hague that would make the protocol ratifiable for Parties and thus ensure the Protocol's entry into force by the year 2002.

For its part, Japan is moving forward in its efforts to address climate change. In October of 1998, a Law Concerning the Promotion of the Measures to Cope with Global Warming was enacted. The law defines the responsibilities of the central government, local governments, businesses and industry, and citizens in taking actions to cope with global warming, and requires that the government establish a basic policy on measures to address global warming.

A broad range of measures is now being taken. For example, stringent energy efficiency standards have been established for automobiles and electric appliances based on a top-down approach, where manufacturers are required to meet, within several years from now,

the level of highest energy efficiency currently realized. Businesses and industries are also moving forward to make serious efforts in improving overall energy efficiency and cutting greenhouse gas emissions. Keidanren, the federation of business and industry organizations, committed to its voluntary action plan in 1997 with quantitative targets for individual participating industries. The Keidanren has been publishing every year a report on the state of implementation of the voluntary plan that is reviewed by panels of government experts.

We view these efforts as a first step, however. Based on the IPCC's Second Assessment Report, it is estimated that, in order to prevent the concentration of carbon dioxide in the atmosphere from exceeding 550 ppm, roughly doubling the pre-industrial levels, global emissions of carbon dioxide, which would continue to increase for the first few decades of the 21st century, would need to return to the current level by the end of the century. This means that global per-capita emissions of carbon dioxide would need to be reduced to much less than one ton of carbon, most likely to .6 ton or .7 ton C. Developed countries will therefore have to take the lead in cutting emissions by much more than is required by current commitment levels, and developing countries will need to follow.

In spite of efforts being made, however, many developed countries have not succeeded yet in reducing their emissions very much. Human society has never before been faced with an environmental threat of this magnitude, and we lack experience in creating the national and international institutions necessary to address it effectively. We must gain a better understanding of what national policies and institutions are effective in reducing emissions and improving efficiency. We also need to know more about how international institutions like the Clean Development Mechanisms, joint implementation and emissions trading will interact with these national institutions. We do not yet fully understand how efforts to reduce emissions fit in with the broader objectives of sustainable development. Ultimately, we need to better understand how we can learn from their experiences and work together in making the societal and economic changes necessary to achieve the long-term objective of the Convention.

Your work here, therefore, is critical. International, collaborative research efforts such as this are crucial for gaining the knowledge and wisdom necessary to address this challenge. On behalf of the Environment Agency of Japan, I thank you for allowing me to participate in this very important effort, and look forward to hearing of your results. Thank you very much.