Blue
Planet
Prize

THE FIRST BLUE PLANET PRIZE

Reference Material for Press Conference Held in Honor of the Visit of the Winners

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APPENDICES

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THE BLUE PLANET PRIZE

- This international prize is awarded to those individuals and institutions working to solve environmental problems.
- Established in 1991, the prize will be awarded for the first time this year.
- This is the largest international prize recognizing environmental research and related activities, comprising two awards of ¥50 million (approximately U.S.$370,000) each.
- The prize acknowledges not only research but also activities that contribute to the solving of environmental problems.
- Nominations are solicited from researchers and other persons involved in environmental activities worldwide.

1. PURPOSE

The prize rewards individuals and organizations working to solve environmental problems.

2. AREAS FOR RECOGNITION

Human activities that result in global warming, acid rain, ozone layer breakdown, tropical rain forest destruction, desertification and water pollution are areas of concern to the Foundation. Other environmental issues, such as food, energy production, overpopulation and the preservation of ecosystems are also of interest to us. The Blue Planet Prize will be awarded to people and organizations whose achievements contribute to the resolution of the environmental crises mentioned above.

3. DETAILS OF THE BLUE PLANET PRIZE

Prize recipients will be presented with a certificate of merit, a commemorative gift and a supplementary award of ¥50 million.

a) Academic Award
The Academic Award is granted to an individual or research group that realizes an extreamely advanced and highly original scientific or technical breakthrough or one that contributes substantially to the development of answers applicable to environmental problems. Studies are not limited to the field of natural sciences but include human and social sciences as well.

b)Development and Implementation Award
The Development and Implementation Award is bestowed upon an individual, group or organization that has exhibited outstanding achievement in executing environmental projects; establishing and implementing environmental policies; realizing universally pertinent research and development results; undertaking education and awareness programs; and conducting environment-related writing or media activities.

4. CANDIDACY ELIGIBILITY

All people, irrespective of nationality, gender or religion, are eligible to apply for this award. Candidacy is, however, restricted to living persons.
The Academic Award is open to individuals or research groups. The Development and Implementation Award is open to individuals, groups and organizations. Groups will be nominated under the name of one of the group members.

5. SELECTION CRITERIA

Potential award recipients will be those whose achievements
- contribute to the discovery, forecast, assessment or solution of a global environmental problem in aforementioned fields.
- form a basis for harmonious and prosperous economic development.
- are of global importance.
- are attained beyond the scope of one's job responsibility or the organization to which the individual (or group) is affiliated.

6. SELECTION PROCESS

Nomination of Candidates
- A domestic or foreign nominator will recommend an individual or organization in each award category.
- To cover a wide spectrum of fields and add an international dimension to the selection process, the Foundation defines nominators as people who have exhibited a solid, cross-border grasp of today's environmental concerns within their respective fields of study. The majority will be authorities on worldwide environmental problems. Through this process, the Blue Planet Prize will maintain its international character.

Selection of Candidates
Japanese authorities in various fields relating to present environmental concerns carefully screen candidates in a three-step process.
(1) Candidate Selection:Relying on the specialized expertise of its domestic members, the Foundation's selection committee considers candidates in each prize category. We call upon the assistance of certain overseas authorities as advisers.
(2) Final Candidate Selection:The Foundation's presentation committee, consisting of seven members of the Foundation's Board of Directors, chooses a limited number of possible winners from among candidates referred by the selection committee.
(3) Decision:The Board of Directors, as a whole, determines the Blue Planet Prize winners..

To maintain strict confidentiality, we will not provide information pertaining to the screening of candidates or their progress during the selection process.

THE FIRST BLUE PLANET PRIZE
- THE PROCEDURE AND THE WINNERS -

The Asahi Glass Foundation announced the inaugural winners of the Blue Planet Prize at the Rio Centro Convention Center during UNCED in June. The Blue Planet Prize, an international environmental award was established in April 1991 by the Foundation to commend individuals and institutions whose achievements have contributed to solving environmental problems.

The recipient of the Blue Planet Prize Academic Award — an award for research achievement — is Dr. Syukuro Manabe, a member of the Senior Executive Service, U.S.A., Geophysical Fluid Dynamics Laboratory of the National Oceanic and Atmospheric Administration in Princeton, New Jersey.

The winner of the Blue Planet Prize Development and Implementation Award — an award for practical achievement — is the International Institute for Environment and Development (IIED), a British nongovernmental organization (NGO) that has been involved in environmental activities for 21 years.

DR. SYUKURO MANABE

Dr. Syukuro Manabe has contributed greatly to the study of global warming and future climatic changes and has played a leading role in developing climatic models. Since being invited to the Geophysical Fluid Dynamics Laboratory of the U.S. Weather Bureau as a research meteorologist in the late 1950s, he has quantitatively researched the link between atmospheric carbon dioxide increases and global warming. His achievements include the development of a computer simulation model of general atmospheric circulation and a coupled ocean-atmosphere model that considers the effects of ocean currents on atmospheric movements. Today, he is one of the principal meteorologist in the world. Dr. Manabe co-authored a 1990 report released by the Intergovernmental Panel on Climate Change that predicted future climatic changes.

Dr. Manabe has lived in the United States since 1958 and is a U.S. citizen.

THE INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT (IIED)

Founded in 1971, IIED is an independent, nonprofit organization promoting sustainable patterns of world development through research, policy studies, consensus building and public information. The chief founder of the institute was Barbara Ward, whose motto was "Think globally, act locally." Since its establishment, IIED has carried out activities based upon the concept of sustainable development. IIED believes the key to real development is to reflect local needs in the level and type of production instituted. IIED operates not only in developed countries but also in many countries of Africa, Southeast Asia and Latin America. Current study areas include various energy programs, environmental economics, sustainable agriculture, management of arid areas, and forestry and land-use programs. IIED has utilized its research results to guide governments in implementing ecologically sound programs. Through its broad information network, IIED also facilitates the circulation of information concerning recent activities and research of individuals and groups worldwide. This is IIED's first international prize.

SELECTION PROCEDURE FOR THE BLUE PLANET PRIZE

In July 1991, the Foundation requested nominations from over 2,000 persons worldwide. Approximately, there were 60 nominations for the Academic Award and 90 for the Development and Implementation Award. By research topic, the breakdown was atmosphere related, 20%; geospheres and biospheres, 37%; fresh and salt water related, 7%; others, 36%.

A selection committee of experts in their respective fields in Japan conducted the first selection process for candidates with the aid of overseas advisers. The final selections were made by a presentation committee that included seven directors from the Foundation. The final selections made by the presentation committee were then approved by the Foundation's Board of Directors. The inaugural winners of the Blue Planet Prize were announced in the Open Briefing Room at the Rio Centro Convention Center on June 8th during UNCED.

SELECTION RATIONALE

Dr. Manabe was selected for the Academic award for:
- developing a model that predicted the effect certain greenhouse gases would have on global warming; the model, which was ahead of its time, was developed when global warming was not yet a topic of concern.
- playing a leading role in the fields of global warming and climatic changes.
- making estimations of climate change more accurate through developing climate models over the past 30 years.
- writing a landmark study titled "Interhemispheric Asymmetry in Climate Response to a Gradual Increase of Atmospheric Carbon Dioxide", published in Nature in 1989.
- making extensive contribution to a report by the Intergovernmental Panel on Climate Change.

The IIED was selected for the Development and Implementation Award for:
- continuing to seek sustainable development in developing countries and succeeding in implementing resource-management programs.
- conducting research and cooperating with various NGOs, governments, industrial corporations and universities to provide the most appropriate aid to developing countries.
- maintaiing an unpretentious approach to attaining the goal of sustainable development.
- keeping a neutral position as an NGO in its treatment of countries irresspective of their foreign policy or development strategy.
- painstakingly disseminating environment-related news about developing countries.
- increasing the accuracy and usefulness of enviroment-related infomation worldwide.

PROFILE OF DR. SYUKURO MANABE

PERSONAL

Date of Birth: September 21, 1931
Place of Birth: Shingu-Mura, Uma-Gun, Ehime-Ken, Japan
Marital Status: Married January 11, 1962; 2 children

EDUCATION

Bachelor of Science, University of Tokyo, 1953
Master of Science, University of Tokyo, 1955
Doctor of Science, University of Tokyo, 1959

EMPLOYMENT

1979 -	Member of the Senior Executive Service, U.S.A., Geophysical Fluid Dynamics Laboratory, National Oceanic and Atmospheric Administration, Princeton, New Jersey
1968 - 1979	Senior Research Meteorologist, Geophysical Fluid Dynamics Laboratory, National Oceanic and Atmospheric Administration, Princeton, New Jersey
1963 - 1968	Senior Research Meteorologist, Geophysical Fluid Dynamics Laboratory, Environmental Science Services Administration, Washington, D.C.
1958 - 1963	Research Meteorologist, Geophysical Fluid Dynamics Laboratory, U.S. Weather Bureau, Washington, D.C.

PROFESSIONAL ACTIVITIES

Princeton University, Lecturer with rank of Professor in the Atmospheric and Oceanic Sciences Program, 1968 - ; Graduate Work Committee of the Atmospheric and Oceanic Sciences Program, Chairman, 1985 - 1987

University of Tokyo, Geophysical Institute, Faculty of Sciences, Visiting Professor, 1983

World Meteorological Organization/International Council of Scientific Union/United Nations Environmental Program, Joint Scientific Committee, 1981 - 1987; Greenhouse Advisory Group, 1986 - 1988; Feasibility Study Panel for Global Energy and Water Cycle Experiment, 1987 - 1988

World Meteorological Organization, Commission on Atmospheric Sciences Working Group on Effects of Air Pollution on the Dynamics of the Atmosphere, 1971 - 1975

International Union of Geodesy and Geophysics, Commission of Dynamic Meteorology, 1972 - 1978; Commission of Climatic Variation, 1979 - 1982

Intergovernmental Panel on Climate Change, Lead author for Group I Report (Scientific Assessment), 1989 - 1990

National Research Council, Panel on Climatic Variation, 1972 - 1980; Climate Research Committee, 1980 - 1981; U.S. Committee for the Global Atmospheric Research Program, 1974 - 1980; Panel on Cloud and Radiation, 1983 - 1987; Board on Atmospheric Sciences and Climate, 1988 - 1991; Committee on Opportunity in the Hydrologic Sciences, 1988 - 1990; Commission on Geosciences, Environment and Resources, 1990 -

American Meteorological Society, Commission on Scientific and Technical Activity, Committee on Radiation Energy, 1974 - 1977; Committee on Climate Variation, 1978 - 1982

U.S. Department of Commerce, Executive Development Program for Senior Executives, 1980; NOAA Panel on Climate and Global Change, 1985

National Oceanic and Atmospheric Administration, NOAA Panel on Climate and Global Change, 1988 -; NOAA Subpanel of Climate and Global Change on Data Management, 1989 - 1990; NOAA Subpanel of Climate and Global Change on Modeling Centers, 1990 -

University Corporation for Atmospheric Research, Scientific Advisory Committee for the Climate System Modeling Program, 1989 -

Geophysical Institute, University of Alaska, Fairbanks, Scientific Review Panels (Atmospheric Sciences), 1988 - 1992

PROFESSIONAL MEMBERSHIPS

Fellow, American Meteorological Society
Fellow, American Geophysical Union
Member, National Academy of Sciences

AWARDS

Fujiwara Award, Japan Meteorological Society, 1966, "for the investigation of the heat balance and the radiative equilibrium of the atmosphere"

Meisinger Award (jointly with J. Smagorinsky, Y. Mintz, A. Arakawa and C.E. Leith), American Meteorological Society, 1967, "for their outstanding individual and collective contributions to dynamic meteorology through their pioneering efforts to numerically model the dynamic behavior of the atmosphere by utilizing directly the primitive equations of motion"

Gold Medal Award for Distinguished Service (jointly with K. Bryan), U.S. Department of Commerce, 1970, 1978, "for an outstanding contribution to the problem of mathematically modeling the joint ocean-atmosphere systems and its implications for the service of humanity"

Distinguished Authorship Award (jointly with J.L. Holloway and H.M. Stone), NOAA Environmental Research Laboratories, 1974, "for Tropical Circulation in a Time Integration of a Global Model of the Atmosphere"

Scientific Research and Achievement Award, National Oceanic and Atmospheric Administration, 1976, "for exceptional distinguished authorship and international leadership in the field of general circulation and climatic modeling and simulation"

2nd Half Century Award, American Meteorological Society, 1977, "for his outstanding contribution to the understanding of the influence of radiative processes on the climate through numerical simulation of the dynamics and physics of the atmosphere"

Administrator's Award, National Oceanic and Atmospheric Administration, 1980, "for outstanding scientific research on global climate"

Distinguished Authorship Award (jointly with A.J. Broccoli), NOAA Environmental Research Laboratories, 1987, for "The Influence of Continental Ice Sheets on the Climate of an Ice Age"

Presidential Rank Meritorious Executive Award, October 1989

Distinguished Authorship Award (jointly with R.J. Stouffer), NOAA Environmental Research Laboratories, 1990, for "Two Stable Equilibria of a Coupled Ocean-Atmosphere Model"

Elected Member, National Academy of Sciences, 1990, "for Manabe first brought the panoply of large - scale, computational tools to bear on the question of greenhouse gas warming, and was first to analyze and describe many feedback mechanisms responsible for climate change"

Carl - Gustaf Rossby Research Medal, American Meteorological Society, 1992, "for his contribution to the understanding of climate dynamics and his pioneering role in numerical prediction of climate change"

SELECTED MANUSCRIPT

- Mitchell, J.F.B., S. Manabe, V. Meleshko and T. Tokioka, Equilibrium Climate Change and Its Implications for the Future, Intergovernmental Panel on Climate Change (IPCC) Report, August 1990

PROFILE OF THE INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT (IIED)

PAST ACTIVITIES

1971 — IIED was established by Barbara Ward and other like-minded international development leaders. The first president was Jack Raymond.

1972 — *Only One Earth* by Barbara Ward published. The book was the unofficial handbook of the UN Conference on the Human Environment in Stockholm that year.

1972 — Barbara Ward was appointed second president of IIED. The concept of sustainable development was adopted.

1975 — IIED and the United Nations Environment Program established an information unit, Earthscan, to provide information and resources to journalists, corporations, and public and government bodies throughout the world.

1976 — IIED played a major role in helping the United Nations implement its urban environment policy and has cooperated with the UN's Habitat program.

1979 — IIED published a key energy report that became a reference work for energy planning, showing how modern economies could continue to expand while energy use falls.

1980 — IIED became involved in marine ecology, establishing the first applied ecoscience group within any charity. Its research on the populations of whales, seals, fish and krill led to the International Whaling Commission's moratorium on whaling.

1984 — For the first time, IIED brought together governments from countries that have tropical rain forest and timber buyers, to enact sustainable forest management programs. It also helped to found the Tropical Forestry Action Plan and the International Tropical Timber Organization. In 1988, the latter organization published a report on tropical forest management by timber-exporting countries.

1985 — Together with the World Resources Institute, IIED coproduced a biennial World Resources Report.

1988 — The International Institute for Environment and Development - America Latina (IIED-AL) became independent from IIED. While its essential concept was identical to that of IIED, its activities focused on urban development, slums and the environment. IIED-AL is located in Buenos Aires.

1988 — IIED Field Services was established to provide sustainable development expertise and experience to donors, governments and nongovernmental organizations. This work includes environmental information and policy reviews, project cycle technical assistance, project design and evaluation, environmental impact assessment, case studies, institutional strengthening, briefings, and training. It also agreed with the U.K. Overseas Development Administration (ODA) to extend official links for a further year by renewing the joint Resource (formerly Manpower) Center Scheme agreement.

CURRENT ACTIVITIES

- Sustainable Agriculture Program (SAP) — IIED believes that the target of feeding tomorrow's world can be achieved by maximizing the use of renewable resources within local production systems, rather than relying on external input. Two collaborative efforts of this nature are under way.

  In the first, "Rural People's Knowledge, Agricultural Research and Extension Practice," researchers from Africa, Asia and Latin America, and the Program are comparing rural people's knowledge systems and practices with those of formal scientific research and extension practices.

  In the second project, "The Hidden Harvest: The Role of Wild Foods in Sustainable Livelihoods," an annotated bibliography is being prepared that documents the importance of wild grains, forest fruits, insects, grasses and other resources in complex agroecosystems worldwide.

- The Forestry and Land Use Program — Taking initiatives to make sustainable development of forests a reality, this program seeks to identify the environmental and social impact of plantations on forests and to locate ways to retain biodiversity. Also, the program continues to support the objectives of the International Tropical Timber Organization (ITTO) and the Tropical Forestry Action Plan (TFAP).

- The Drylands Program — This program researches and collects data about the arid and semi-arid zones of the world. While the program acts globally in terms of research, it implements policy through local activities.

- The Southern Networks Program — This program helps African countries to become self-reliant by collaborating with nongovernmental organizations (NGOs) across the continent.

- The Human Settlements Program — This program investigates urban issues, mainly the health problems of the poor and the relationship between urbanization and environment in such countries as Kenya, Nigeria and India.

- The Climate Change Program — This program analyzes climatic changes and development issues, and to this end has developed methodology that considers all the scientific, political and socioeconononomic ramifications of introducing policies to reduce greenhouse gas emissions. The case studies cover rice production in Vietnam, firewood and forest management in Zimbabwe, maize production and food security in Tanzania, ecological impact and conservation in Botswana, and forest management in Costa Rica and Nicaragua.

- The Environmental Economics Program — This program is at the forefront of research on various issues concerning sustainable resource use.

Chairman: Sir Crispin Tickell
Executive Director: Richard Sandbrook
IIED is staffed by 40 environmental experts and 20 assistants.

REMARKS TO PRESS CONFERENCE

DR. SYUKURO MANABE

I feel very fortunate to receive the prestigious Blue Planet Prize for doing what I have enjoyed the most throughout my career and am very grateful to the Asahi Glass foundation for selecting me for this honor. I was also very lucky to go to the USA in the 1950's when the golden era of atmospheric research began with the arrival of electronic computers and weather satellite.

During the last 30 years, climate research has evolved from arm-waving to the more quantitative approach of modeling based upon the law of physics. Despite the remarkable advance in using computers to simulate the behavior of climate, it is still very difficult to confidently predict future climate change because of the enormous complexity of the climate system. Therefore, a major research effort is urgently needed for the improvement of climate models. I believe that climate modeling is one of those disciplines in which Japanese scientists can play a leadership role with super-computers at their disposal. Although increasing emphasis has recently been upon global change research in Japan, the number of Japanese scientists who are engaged in the research is still too small to tackle satisfactorily this very challenging problem. Increased financial support and enhanced cooperation among various government agencies may be essential for the vitality of research activities at both universities and other laboratories.

In my opinion, an effective strategy for the prediction of future climate change should involve not only the development of a realistic climate model, but also the long-term monitoring of the climate system. For example, the reliable prediction of climate requires the monitoring of various climate-forcing factors such as solar irradiance, atmospheric concentrations of various greenhouse gases, and the distributions of man-made and natural aerosols. When a climate prediction is made, it is necessary to compare it with the actual change which is obtained from in-situ and remote sensing satellite observation. As we discover that the model can mimic the actual climate change, our confidence in the modeling approach should be enhanced. Although this strategy for model validation may not be quick enough for most decision makers, it might well be the only way to ascertain that the model is realistic. Again, Japan can play a major role in the monitoring of climate by exploiting their technological prowess.

In short, I believe that Japan is one of very few countries in the world which can play a leading role in both modeling and monitoring the global change of climate.

REMARKS TO PRESS CONFERENCE

INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT (IIED)

It is a very great honour to receive this most prestigious award. The International Institute for Environment and Development was founded a little more than 20 years ago by a woman who was about 15 years ahead of her time. She realised before anyone else that it is useless to worry about the environment, when million live in such deep poverty that they must destroy their environment to survive. And it is pointless to strive for progress and development, if that progress destroys the environment, which is the foundation of all progress.

For years, IIED laboured apparently in vain to persuade the world that concern for the environment and concern for development are and must be inseparable. Then gradually the world came around to our way of thinking.

It is not surprising then that IIED played a large part in preparing the report of the World Commission on Environment and Development, the Brundtland Commission, which completed its work in Tokyo five years ago, and which called for the Earth Summit. Nor is it surprising that IIED played a large role in helping governments and non-governmental organisations to develop their positions for the recent Earth Summit in Rio.

Many members of our Institute have won awards and prizes for their work, but this is the first time that the entire institute has been honoured. And since the Blue Planet award is the world's most important environmental award, this is indeed heart warming recognition for ourselves and our colleagues.

More important perhaps, it is heart-warming recognition for process by which IIED works. Japan does not have the same traditions of non-governmental organisations (or NGOs) which exist in the West. NGOs have a reputation for being confrontational, for working against governments and industry. IIED may not always agree with governments and industry, but we always work with them to improve their policies and practices. Indeed, in helping the Business Council for Sustainable Development draft its report to the Rio Summit, we had the honour of working with the heads of such key Japanese firms as Kyocera, Mitsubishi Corp., Shin Nippon Steel, Nissan, Oji Paper, and Tosoh.

Japan is a world leader in protecting its own environment. As Japanese operations and vision become ever more international, its concern for the international environment is growing. Indeed, Japanese technology, such as that being developed to convert waste CO_2 into fuel, offers great hope for coping with global environmental problems.

We at IIED look forward to working with the Japanese government, Japanese business, and Japanese NGOs to move towards a common future based on the goals of sustainable development.