

## Blue Planet Prize 10th Anniversary Commemorative Lectures A Better Future for the Planet Earth

Date: May 14, 2002

Place: Keidanren Hall

Theme: " A Better Future for the Planet Earth "

We celebrated the fact that our international environmental award, the Blue Planet Prize, marked its first decade last year with the 10th Anniversary Commemorative Lectures. A crowd of more than 550 filled the hall to hear the guest speakers. The Ceremony opened with a speech by Hiromichi Seya, Foundation chairman, filled with his expectations about what can be accomplished if more people become involved in understanding environmental problems and working toward their resolution. It was followed by the keynote speech by Dr. Jiro Kondo, Foundation director and chairman of the Blue Planet Prize Selection Committee. In the afternoon session, the United Kingdom's Dr. Norman Myers, Dr. Syukuro Manabe and Dr. Theo Colborn of the United States discoursed. Each speaker gave a spirited talk on the latest research findings and information related to his or her specialization. The session continued under the adept guidance of Professor Hiroyuki Ishi of Tokyo University, who served as the general moderator for a lively question and answer exchange between the lecturers and the audience members filling the lecture hall.



### •Keynote Lecture

Dr. Jiro Kondo, Chairman, Blue Planet Prize Selection Committee  
Ten-Year History of the Blue Planet Prize



One can say that environmental problems have come about as a result of human activities and that we are having an adverse effect on the Earth's environment. Human beings emerged on the Earth approximately 5 million years ago, and since then we have developed by changing our environment. This is known as civilization, but increased populations and cultural and technological developments have brought forth numerous contradictions in today's world. If you take a human-centric look at environmental problems on a global scale, the effects have extended all around us in the air, the water, the soil and in the living creatures. Representative problems include destruction of the ozone layer, climate change, loss of biodiversity, a lack of environmental philosophy and ethics, and environmental hormones. As I briefly introduced the accomplishments of the 20 recipients of the Blue Planet Prize over the past 10 years, I was impressed again at the broad scope of the environmental fields in which they have pursued their work with foresight and great passion. I predict that these fields in endeavor will only broaden in the coming years.

•Lectures

Dr. Norman Myers (10th Blue Planet Prize)

Recent Research Breakthroughs in Environmental Conservation for Sustainable Development



This lecture reviews three of my recent research topics. One is "biodiversity hotspots." Endemic species are not distributed widely and equally all over the Earth, but inhabit small, limited regions in high concentrations. Forty percent of plant species and 30% of vertebrate species (except fish) are confined to just 25 localities that make up just 1.4% of Earth's land surface. It is extremely cost-effective to pursue environmental conservation in these 25 "hotspots" to preserve biodiversity.

My second research topic is "perverse subsidies." We have come to understand that the subsidies for agriculture, fossil fuels, road transportation, water, forests and fisheries provided by governments in each country worldwide have adverse impacts on both environments and economies. Many countries have begun to face the challenges of reducing these subsidies since taxpayers in each country are paying mutually contradictory costs associated with the subsidies and environmental repair, a double burden.

The third topic is "new consumers." Seventeen developing and three transition countries now feature over 1 billion people with enough household income to engage in consumerist lifestyles that includes enjoying meat every day and buying cars in fast-growing number, which leads to water and grain shortages, air pollution and other severe impacts on the environment. What we should do about this is becoming an important topic.

Dr. Syukuro Manabe (1st Blue Planet Prize)

Global Warming and Water Resources



Is global warming happening? Why? What will happen in the future? This is what I will address. We are attempting to predict climate change using a mathematical model of the coupled ocean-atmosphere-land surface system. Examining average temperatures in the Northern Hemisphere, the rise in atmospheric temperature in the latter half of the 20th century is clear and CO<sub>2</sub> concentrations are increasing rapidly.

There is a synergy effect to greenhouse gases. For example, when the air temperature rises as a result of a minute increase in the CO<sub>2</sub> concentration, large volumes of water vapor, which has a warming effect, are produced, further raising the temperature. The earth's precipitation and evaporation increase as the temperature rises. The changes in precipitation will not occur evenly over the Earth's surface, they will vary by region according to factors such as latitude and location on a coast or inland. While the volume of water will increase in some rivers, the soil moisture in areas that are currently arid will further decrease, giving rise to desertification and extreme weather phenomena. According to current

predictions, water shortages will become more acute in the world's agricultural regions as the 21st century progresses and the management of water resources will become a major challenge for mankind.

Dr. Theo Colborn (9th Blue Planet Prize)  
Human Integrity and Reproductivity: At Risk?



Today I will talk about whether we should be neglecting the fact that chemical substances are intruding into our daily lives. Synthetic chemicals are being detected in everyone and their impact extends to all generations. When exposed to endocrine disruptors, the so-called environmental hormones, particularly in the womb, there is a large impact on the fetus. With prenatal exposure, endocrine disruptors have been shown to impair functioning of physiologic, immunologic, neurologic and reproductive development and function. In the post-natal period, it can impair intellect, behavior and immune competency. In adults, it has been shown to predispose autoimmune problems, gonadal cancers and fertility. Males appear to be at greater risk from endocrine disrupting chemicals than females. In Japan, for example, the rate of male fetal deaths has risen over the rate for females since the 1970s. Humans are continuing to change the chemical composition of the biosphere and most of us do not comprehend the dire implications of this activity. Consequently, we are doing almost nothing about it. International research into the concentrations and impacts of endocrine disruptors is underway, and it is of utmost urgency that we publicize these results. Before it is too late, let's protect the security of the womb to preserve the inherent functioning and form of humanity.



Prof Hiroyuki Ishi  
General Moderator