

**Speech at Closing Plenary Session “Returning to Harmony with Nature”  
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The theme of this plenary session is “Returning to Harmony with Nature”. Unfortunately, there is not good news to report. I hope my remarks, which reflect a deep concern, convey how urgent the situation is.

Human Society is at a perilous point. Science and technology have enabled us to prosper and multiply as a species. Our population is expected to cross the nine billion mark in the middle of this century and industrialization is spreading across the world as developing nations strive to improve their standard of living. Human activities are transforming the surface of the earth, but in the process we are damaging the planet’s ecosystems on which we vitally depend.

While science and technology will continue to be employed to better the human condition, their promise can only be fully realized if their applications are compatible with protecting the environment. No matter how much we try to improve our standard of living, we will all be affected by a collapsing environment. This is the case for the industrial nations and, to an even greater extent, the developing nations.

One of the greatest challenges we face is creating a sustainable world. At present humankind is rapidly depleting its environmental bank. More and more we hear news of threats to our environment. The continuing increase of carbon dioxide in the atmosphere is creating the specter of global warming that is predicted to wreak havoc across the world in this century and beyond. We see agriculture and animal husbandry practices leading to soil impoverishment, a loss of soil productivity and extensive land abandonment. We are now losing topsoil at a rate that is five times faster than nature can restore it, and over a third of the planet’s arable land was lost during the past century.

Depletable ground water supplies are being exploited and contaminated. About one billion people lack access to clean drinking water and roughly 40 % of the world’s population regularly experience serious water shortages. Tropical rainforests, as well as tropical and temperate dry forests, are being rapidly destroyed; and as a consequence, large numbers of plant and animal species are being irreversibly lost. Fifty percent of our rainforests have already been destroyed. Marine fisheries are injured or collapsing from over exploitation, and coastal regions are suffering from pollution caused by soil erosion and by industrial, municipal, agricultural and livestock wastes. The list goes on.

These problems are all symptomatic of a very serious crisis: human activities are threatening the global biological and geophysical systems on which all life depends for air, food, energy and an acceptable environment. While much is known about how to combat a number of these problems, we clearly need a greater investment in scientific research and in the development of new, innovative technologies to counter these threats. This is

particularly true in the area of carbon-neutral energy production, since energy plays such an important role in the ecological future of our planet.

While science and technology have indispensable roles to play in addressing these problems, they cannot, in themselves, provide a magic bullet. To counter these threats, nations across the world also have to develop the political will to make the right choices. We face the daunting task of gaining agreement among the nations of the world to seriously move forward against these global threats. Political leaders and the public have to be imbued with a sense of urgency to do what is necessary to help reduce these ecological threats.

We have to find more effective ways to communicate to people across the world the growing dangers to the environment and how these dangers will likely affect them. The bare scientific facts may not be sufficient to persuade political leaders and the public to make the policy and life style choices that are necessary to insure a sustainable world.

Here is where journalists and the media in general have important roles to play. The humanities and the arts can also carry very powerful messages about these crucial issues. We have to enlist all modes of communication to carry this message. It is remarkable what an impact Al Gore's film, An Inconvenient Truth, has had in the United States. It has been a significant factor in awakening a rather dormant environmental consciousness among much of the US public. There is now much more discussion about energy conservation, global warming and making various commercial enterprises more environmental friendly. This points to the need for educational campaigns of a broad scope to inform the public about the importance of protecting the environment. As developing nations strive to improve their standard of living, they too have to carry this message to their citizens. But to be more effective in communicating this message, more research has to be done to determine the local impact of global warming in the various regions of the world. Such research is also necessary for developing local strategies of adaptation.

Not only must the industrial nations set an example in implementing measures to protect the global environment, they also should aid and support developing nations in their efforts to do so. To help developing nations in this way is not an act of altruism. Wealthy nations can abate but cannot escape the harmful effects of a damaged environment. After all, we are all inhabitants of a very finite earth with limited resources. Sharing the air and the oceans, we will all suffer from growing pollution and climate change. This is an urgent global problem that requires a cooperative world-wide response. The future of humankind critically depends on taking decisive action.

Though the STS Forum is only four years old, it is already influencing international discussions on countering these environmental threats. For this we can thank Mr. Koji Omi, whose vision and energetic dedication have created this forum. We can all be very pleased that the STS Forum will be offering proposals to the upcoming G-8 Summit to help put us on the right path to restoring harmony with nature.

Thank you.