

**International Symposium 2002 “Business and the Environment”**

Quest for the Market Supporting Sustainable Development

– Partnership and Transformation of Socio-economy –

*March, 2003*

Institute for Global Environmental Strategies (IGES)  
Kansai Research Center

***IGES Kansai***



Proceedings of  
**International Symposium 2002 “Business and the Environment”**  
Quest for the Market Supporting Sustainable Development  
– Partnership and Transformation of Socio-economy -

**Date:** Thursday, July 25, 2002 1:00p.m. – 5:00p.m.

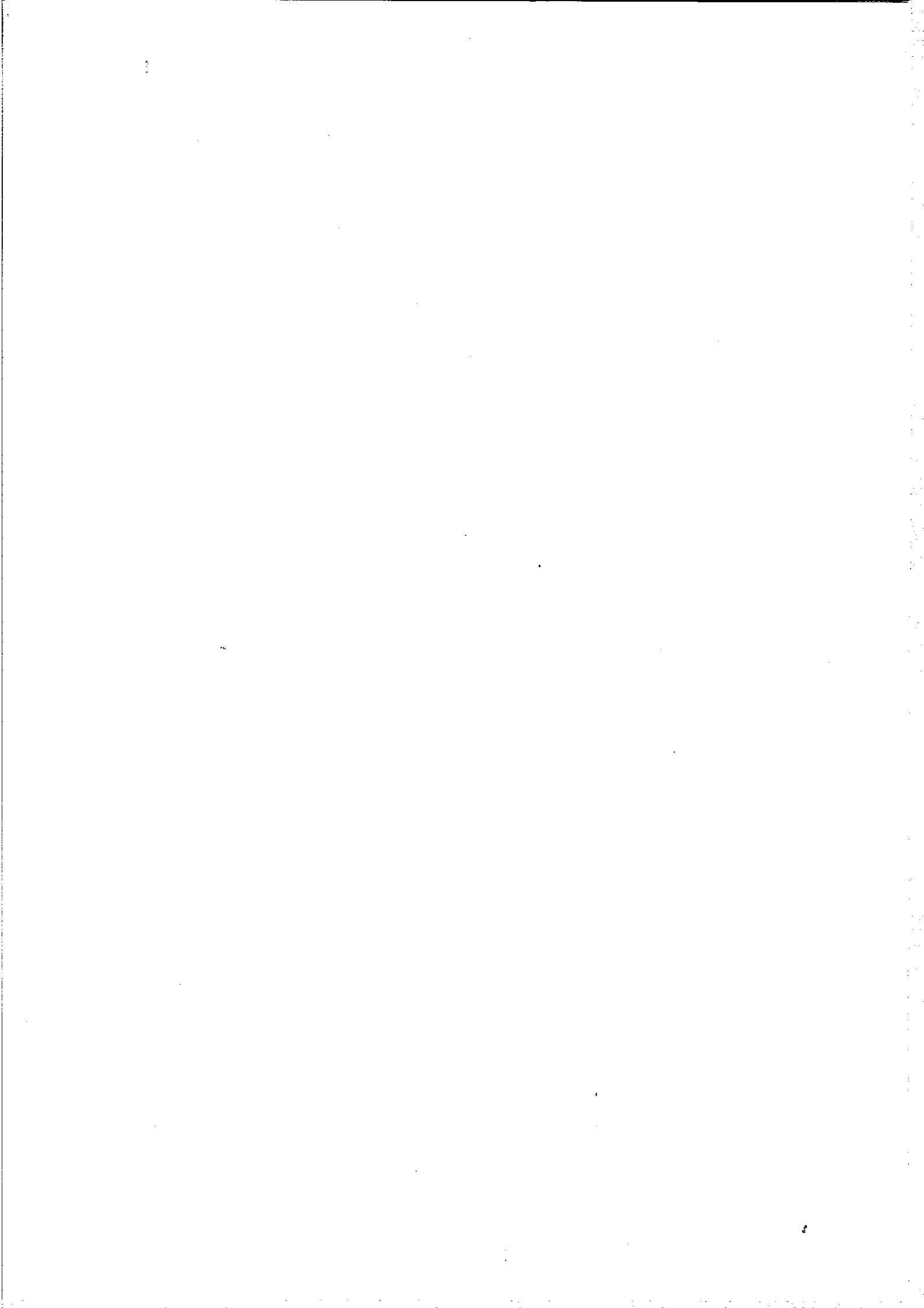
**Venue:** International Conference Center Kobe (International Conference Room, 3<sup>rd</sup> Floor)

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**Organizer:** Institute for Global Environmental Strategies (IGES)

**Sponsors:**

Ministry of the Environment (Japan), Hyogo Prefecture, Kobe City, Asia-Pacific Network for Global Change Research (APN), International EMECS Center, Hyogo Environmental Advancement Association, Hyogo Prefecture Liaison Conference for Air Environment Conservation, Hyogo Prefecture Liaison Conference for Environmental Conservation in the Seto Island Sea, 8 organizations of the Advisory Board of IGES Kansai Research Center (Kansai Council, Global Environment Forum-KANSAI, Kansai Economic Federation, The Federation of Chamber of Commerce and Industry in Hyogo Prefecture, Hyogo Prefectural Federation of Societies of Commerce and Industry, The Hyogo Industrial Association, The Osaka Industrial Association, The New Industry Research Organization)



## International Symposium 2002 “Business and the Environment”

### Quest for the Market Supporting Sustainable Development

– Partnership and Transformation of Socio-economy –

The 2nd International Symposium on Business and the Environment organized by IGES Kansai Research Center was held as a part of Hyogo Environmental Business Week (July 22<sup>nd</sup> through July 26<sup>th</sup>) with support from many related organizations. In this symposium, distinguished speakers and panelists from national governments, businesses and NGOs, who have also participated in the Global Linkage Forum in Hyogo and the 2<sup>nd</sup> Tripartite Roundtable on Environmental Industry, joined together to hold discussions on possibilities of partnership between various social bodies toward realization of “Sustainable Development”.

#### Objectives

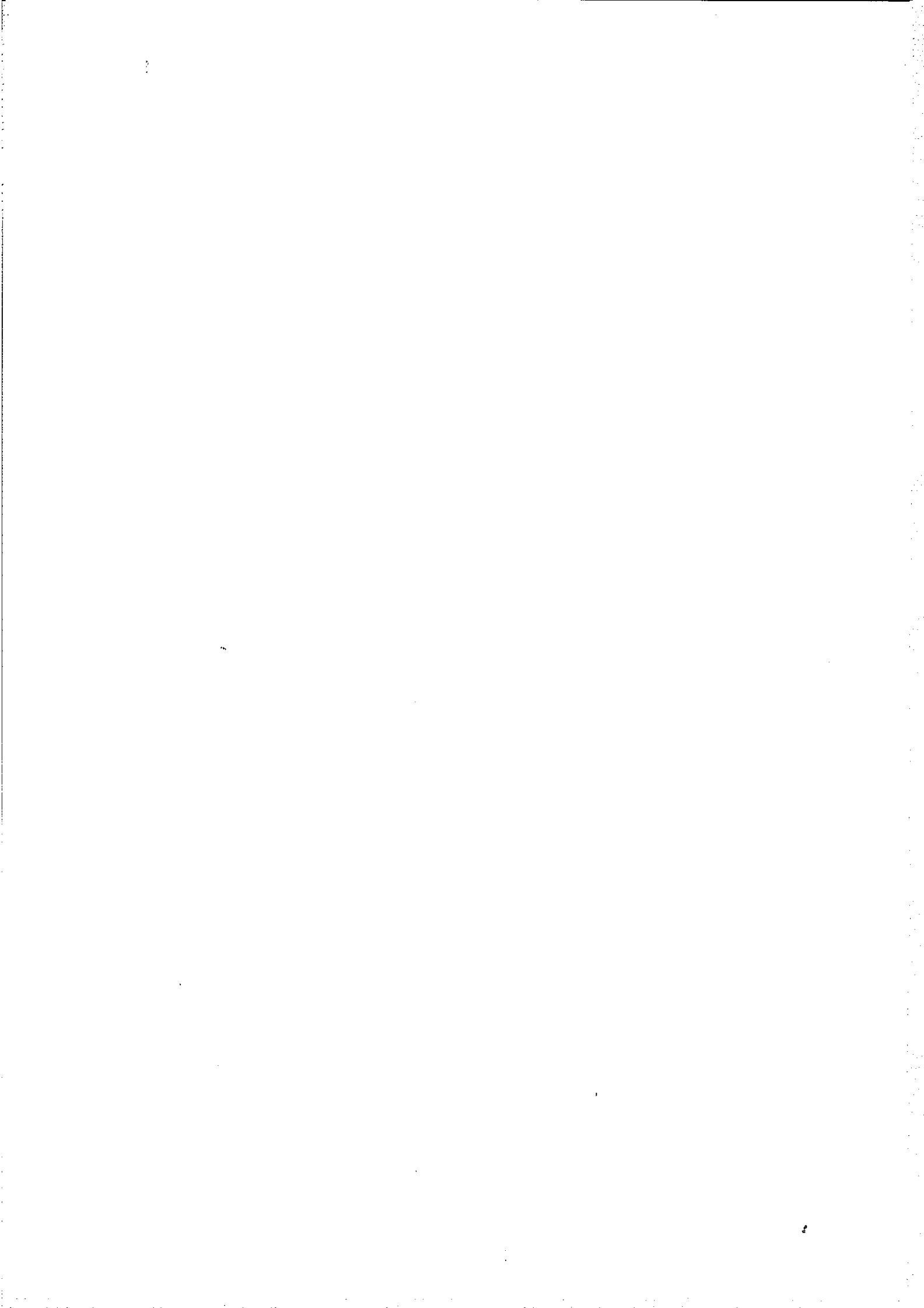
Ten years after the 1992 Earth Summit on Environment and Development in Rio de Janeiro, Johannesburg Summit 2002 - the World Summit on Sustainable Development - was held starting from August 26 with the aim of checking on their approach and implementation for the past ten years.

For the last decade, world industrial sectors have taken initiatives to implement plans toward “Sustainable Management” by working on international standard for environmental management (ISO 14000 series), introducing environmental accounting, issuing environmental reports as well as developing methods to measure greenhouse gas emissions. The realization of “Sustainable Development” requires cooperation and collaboration between all the sectors of society: corporations, national and local governments, NGOs, NPOs and so on.

In this regard, it is important to review the environmental issues based on a long-term perspective of 100 years. Understanding the global socio-economic efforts made by business sectors and other social bodies in the last 10 years, this symposium aimed at holding discussion on what future actions should be taken by each sector of the society.



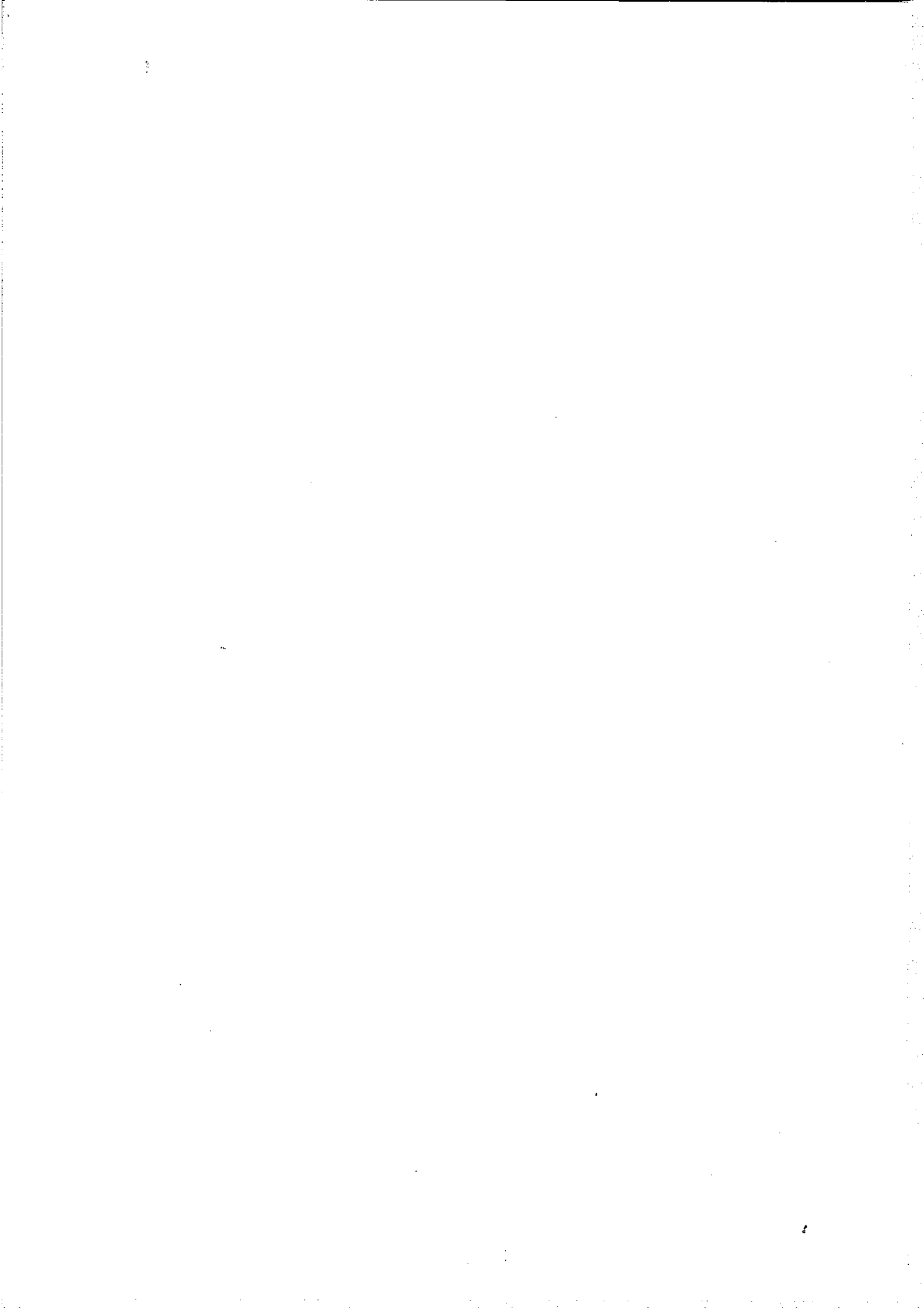
Panel Discussion



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- Partnership and Transformation of Socio-economy -	
<i>Coordinator:</i> Akihiro AMANO (Director, Kansai Research Center, IGES/ Director, IGES, Japan)	
<i>Panelists:</i> William Glanville, Ryokichi Hirono, Yutaka Miyakawa, Han Wei, Hitoshi Nakamura	





## PROGRAM

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### 13:00-13:20 **Opening Remarks**

- Akio Morishima (Chair, Board of Directors, Institute for Global Environmental Strategies (IGES), President, Central Environmental Council, Japan)
- Toshizo Ido (Governor of Hyogo Prefecture, Japan)
- Nobutoshi Miyoshi (Director of Environment and Economy Division, Environmental Policy Bureau, Ministry of the Environment, Government of Japan)

### 13:20-13:50 **Special Speech**

#### **“Transition of Environmental Problems and Responses of Japanese Society”**

- Akio Morishima (Chair, Board of Directors, Institute for Global Environmental Strategies (IGES), President, Central Environmental Council, Japan)

### 13:50-14:50 **Keynote Speech**

#### **“Partnering for Sustainability: The Collaboration Imperative”**

##### **- Utilizing Business-NGO Relationship to Achieve Sustainable Development -**

William Glanville

(Vice-President and Chief Operating Officer, IISD(International Institute for Sustainable Development), Canada)

### 15:10-17:00 **Panel Discussion**

#### **“Quest for the Market Supporting Sustainable Development”**

##### **- Partnership and Transformation of Socio-economy -**

###### *Coordinator:*

Akihiro Amano (Director, Kansai Research Center, IGES/ Director, IGES, Japan))

###### *Panelists:*

William Glanville (Keynote Speaker)

Ryokichi Hirono (Professor Emeritus, Seikei University / Director, IGES, Japan)

Yutaka Miyakawa (Manager, Environmental Control & Energy Division, Kobe Steel, Ltd.)

Han Wei (Secretary General, China Association of Environmental Protection Industry, CHINA)

Hitoshi Nakamura (Director of Special Project, Open University for the Environment (Curitiba, Brazil), Former Secretary of State for the Environment and Water Resources, State of Parana, Brazil)

## PROFILE

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### *Special Speech*

**Akio Morishima** (Chair, Board of Directors, Institute for Global Environmental Strategies (IGES), President, Central Environmental Council, Japan)

Prof. Morishima is the Chair of Board of Directors of the Institute of Global Environmental Strategies (IGES). He graduated from the University of Tokyo in 1958, and was at Nagoya University for more than thirty-five years, as associate professor, and professor, and Dean at the School of Law, and as the Dean of Graduate School of International Development. In 1997, he became a professor at Sophia University. He has been involved in the Central Environmental Council of Japan as the Chairman of Policy Planning Committee since 1993.

### *Keynote Speech*

**William Glanville** (Vice-President and Chief Operating Officer, IISD(International Institute for Sustainable Development), Canada)

Bill Glanville joined the International Institute for Sustainable Development as Vice President and Chief Operating Officer in February, 1998. He is responsible for the overall direction and coordination of the Institute's research activities and achievement of its strategic objectives. He is also responsible for leading the ongoing strategic planning process within IISD. He currently serves on the Board of Trustees of the Institute for Global Environmental Strategies in Japan.

Prior to coming to IISD, Dr. Glanville worked for 28 years in the field of post-secondary education in Alberta. Most recently he served as Academic Vice President and in other executive positions at the Northern Alberta Institute of Technology (NAIT) in Edmonton. Dr. Glanville's educational background is in the areas of chemistry, science education, and educational administration; he is a graduate of McGill, Harvard, and the University of Alberta.

### The International Institute for Sustainable Development (IISD)

The IISD vision is better living for all—sustainably; its mission is to champion innovation. IISD promotes the transition toward a sustainable future, demonstrating how human ingenuity can be applied to improve the well-being of the environment, economy and society. IISD believes that for development to be sustainable, it must integrate environmental stewardship, economic development and the well-being of all people. The Institute meets this challenge by advancing policy recommendations on international trade & investment, economic policy, climate change & energy, measurement & indicators, and natural resources management. Using the tools of policy research, information exchange, analysis and advocacy, in addition to these action recommendations based on careful analysis, the IISD builds knowledge networks to bolster the capacity of civil society and other organizations in both South and North, and produces timely reporting of international negotiations critical to the sustainability of the planet. The Institute's web site can be found at <http://www.iisd.org/>

## *Panel Discussion*

**Akihiro Amano** (Director, Kansai Research Center, IGES/ Director, IGES, Professor Emeritus of Kobe University, Professor Emeritus of Kwansai Gakuin University, Japan)

Completed Graduate School, Kobe University, 1958. Ph.D. in Economics, University of Rochester, U.S.A., 1963. Ph.D. in Economics, Osaka University, 1966. Specializes in environmental economics. Former Associate Professor at Osaka University. Former Professor at Kobe University and School of Policy Studies of Kwansai Gakuin University. Has served as member of councils for Economic Planning Agency, Environment Agency, Hyogo Prefecture, etc. Has extensive experience of research studies overseas. Awarded a Purple Ribbon Medal from Japanese Government, 2000. His publications include "Economics of Global Warming", "Policy Studies for Co-existence with the Environment: Introduction", and "Balance of Payments and Foreign Exchange Rates in Japan".

**Ryokichi Hirono** (Professor Emeritus, Seikei University / Director, IGES, Japan)

Received his masters and doctorate degrees in economics from the Graduate School of Business of the University of Chicago. Served as Professor of Economics at Seikei University and concurrently as UNDP Policy Assessment Director and UN Assistant Secretary-General. Currently Professor at the Graduate School of Teikyo University, Visiting Professor at National Graduate Institute for Policy Studies (GRIPS), Ulanbator Graduate School of Business and the Graduate School of Sophia University. Also served as a provisional member of the Central Environment Council, Ministry of the Environment, and Member of the ODA Confab, Ministry of Foreign Affairs. Other posts include Assistant Director of the Japan Evaluation Society (JES), President of the Japan Society for International Development, Member of the Management Council of Japan Fund for Global Environment, Director of the Asia Pacific Association of Japan (APA), Director of the ASEAN-Japan Center, and Vice Chairman of the International Management Association of Japan (IMAJ). Overseas served as Chairman of the Committee for Policy Development, ECOSOC, and a member of the Philippine Institute for Development Studies. Has authored many papers and books in Japanese and English. Currently serving as the Leader of the Environmental Industry Project at IGES.

**Yutaka Miyakawa** (Manager, Environmental Control & Energy Division, Head Office, Kobe Steel, Ltd.)

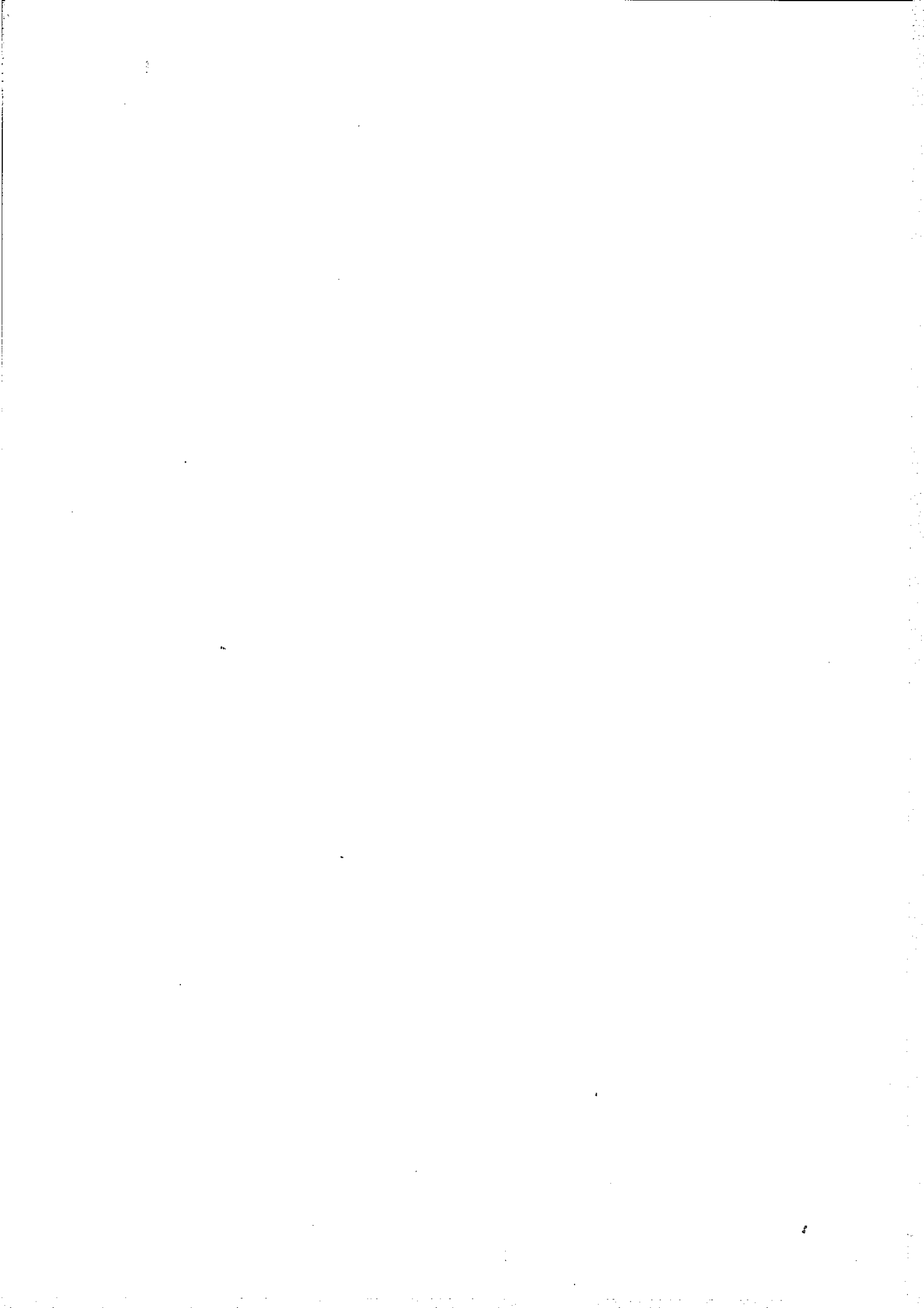
Completed Graduate School of Engineering, Kyoto University, 1981. He joined Kobe Steel, Ltd. in the same year and doing operation, planning and technical development for Blast Furnace. In 1992 he moved to Planning, Iron and Steel Division as a manager in charge of planning relevant to iron-making and environmental control. After successively holding Manager of Environmental Control & Safety at Kakogawa Works, 1995 and Deputy General Manager of Environmental Control & Energy at Head Office, 1999 (in charge of planning promotion of the company-wide environmental policies including group businesses), he has been in the present post of Group Leader of Environmental Control & Energy at Head Office since 2002 and been responsible for implementation of environmental policies across the whole group businesses. He is licensed as a manager in charge of pollution control of air pollution (1<sup>st</sup>), water pollution (1<sup>st</sup>) and Dioxins, as well as a qualified person for waste treatment, hazardous waste, energy control and ISO 14001 audit.

**Han Wei** (Secretary General, China Association of Environmental Protection Industry, CHINA)

Mr. Wei had been holding prominent positions in charge of environmental issues in China such as President of Jiangxi Environmental Protection Bureau (1985 – April, 1996) and Director of China Green Environment Development Center (April, 1996 – March, 2000). Has been in the present position of Secretary General of China Association of Environmental Protection Industry (CAEPI) since March 2000.

**Hitoshi Nakamura** (Director of Special Project, Open University for the Environment (Curitiba, Brazil), Former Secretary of State for the Environment and Water Resources, State of Parana, Brazil)

Completed Graduate School of Osaka Prefecture University in agricultural studies. Immigrated to Brazil in 1970, where he operated an experimental farm. Started working at the City of Curitiba, the State of Parana in 1971. Became the Coordinator of the Program of Environmental Education and Landscaping Execution, Secretariat of Education, the State of Parana in 1987. He had served as Municipal Secretary of Environment of the City of Curitiba from 1989 through 1994, and worked on policy-making in urban planting, recycling and slum districts etc. The city was given United Nations Environment Award for being an environmentally advanced city. He became the Secretary of Environment of the State of Parana in 1995, and has been at the present post since 2001.



## Special Speech

### “Transition of Environmental Problems and Responses of Japanese Society”

Akio Morishima

Chair, Board of Directors, Institute for Global Environmental Strategies (IGES)

President, Central Environmental Council, Japan

In Japan, environmental concerns have developed from pollution, a relatively local problem, to global environmental problems. In the initial period, I was involved in the study of pollution-related issues from the aspect of legislation, partly owing to the reason that my professor was interested in pollution problems. Today, based on my experiences, I would like to talk in somewhat essayistic style about the history of environmental problems in Japan, and the role, enemy or villain in some cases, that the industrial sector has played up to the present.

In the 1960s, in the third decade of the Showa Era, the term “environment” was seldom used in Japan. The first “environmental issues/problems” we heard about in Japan involved industrial pollution.

At that time, pollution was not yet an important policy issue or it was not even legally regulated in Japan. It first became known as a social problem or news items. This included Kawasaki asthma, asthma near the navy base in Yokosuka City, and Yokkaichi asthma.

Minamata disease was already known, with the first individual falling victim to it in 1956. However, the government only accepted that industrial processes caused Minamata disease after more than ten years, in 1968. At first, people just interpreted the incident as indicating that something had gone wrong. It was at that time that my professor, whom I mentioned just now, Prof. Ichiro Kato, who later became the President of the University of Tokyo, pointed out to me that pollution was a looming issue. He suggested that we make a study of it, since it might become a legal problem. We started research, funded by R&D grants from the former Ministry of Education, Science and Culture. The research included, for example, investigation of the wooden buckets in Sensoji Temple in Asakusa, which had suddenly started to decay, and the River Neyagawa in Osaka, which was changing into an open sewer. At first, we did not take these changes as serious problems, but we kept studying these phenomena thinking that they may become serious problems.

Around the mid-1950's, people were already suffering in Yokkaichi City. However, the

problem drew little attention since Yokkaichi was not a conurbation, or of any political importance. Japan was then implementing an income-doubling policy, and all priorities, including policies and laws, were concentrated on fostering higher economic growth. Japan's chief energy source was changing from coal to petroleum, and the petrochemical industry was growing. Under these conditions, chemical substances were gradually but steadily ruining human health as a direct result of economic growth and industrial development. The highest priority of Japanese government was at that time being placed on economic development, not public health.

Because the government policies were directed almost exclusively to industrial development, no measures were not taken in spite of the fact that many types of pollution started to crop up across the nation. Most of them occurred not in central areas, but in surrounding areas. The similar problems occurred in Osaka and the Hanshin region. In the Yokkaichi case, there was public concern because pollution occurred in previously pristine areas. In the case of Osaka, which has been called "The City of Smoke" since the old days, black smoke has long been seen as one of Osaka's characteristics. For this reason, although pollution gradually and increasingly threatened the Yodogawa and Nishi-Yodo rivers, it was not perceived as a political issue. The series of government policy for stimulating economic growth were not balanced by any policies for pollution-control.

In the meantime, opposition from residents who were suffering from pollution started to build. Anti-pollution movements started, and victims, rather than the general public, went to City Halls and factories to protest that their laundry was stained by soot from factories, that it was too noisy for children to sleep, and so on. Victims protested passionately in the hope of somehow improving their situation.

Then, in the late 1960s, four major pollution lawsuits began, including the case in Yokkaichi. Anti-pollution groups used pollution litigation in self-defense, and proactive lawyers supported the victims. During my stay in the US until 1968, I was thinking that jurisprudence in Japan mainly involved foreign countries and did not deal with domestic concerns. I came back to Japan doubting if jurisprudence in Japan could do anything for society.

One day, when I was taking up a teaching post at Nagoya University, one of my first students came to consult me about pollution litigation saying, "I need your help. I don't think we can win this case, but we must bring it before the court so as to be heard by the government and corporations on an equal footing. We will utilize this lawsuit as a chance to appeal to the

government, but of course we want to prepare for it to win based on jurisprudence." I then joined the group of plaintiff's lawyers of the Yokkaichi pollution litigation.

The accused corporations were never feeling convinced about people who tried to take them to court while they were trying hard to develop economy and improve everybody's living standards. Suffering citizens, on the other hand, suspected the conscience of the corporations. Factories were continuously being built, and large plants were being built next to fishing villages, making residents suffer even more. This was truly the age of confrontation in pollution problems. Corporations were the perpetrators and also responsible entities, and ordinary citizens were the victims. When pollution litigation first occurred in this confrontational atmosphere, it was claimed that lawsuits on environmental pollution were a matter of legislative problem, and that legal challenges to pollution in Japan were too weakly based to justify demands for compensation. Problems with public laws, the administration, and regulation began to emerge.

Local governments did play a very important role in this period when national legislation lagged behind the public's wishes, but actually against their will. They have no choice but to appeal the factory as citizens accused local government of not doing anything for the public. However, the Constitution and Local Government Act specify that local governments can stipulate regulations only within the framework of the national laws. The central government put pressure on local government from one side, and citizens were also exerting strong pressure on the local government from the other side. As a result, local governments started to lead the way in creating de facto limits to emissions by establishing the agreement on environmental pollution control and preparing administrative guidelines rather than regulations, since the Ministry of Home Affairs would object if they laid down the local regulations related to direct pollution control. Local governments also acted as legal representatives and took the side of citizens by visiting the factory together during actual negotiations.

After intense anti-pollution movements across the nation soon prevented corporations from building factories, Japan stipulated the Basic Law for Environmental Pollution Control in 1967. However, shortly after the enforcement, it was criticized for being too lax. In 1970, the Basic Law for Environmental Pollution Control was revised and 14 new laws were stipulated in the so-called "Pollution Session" of the Diet. Pollution control was finally established in a form of post facto regulation.

Now, what happened as a result of pollution litigation? As seen in the current deflation, Japanese society including the government is often very slow in taking action. Once started, we work hard. However, without pressure, we seldom take actions promptly.

In the 1960s, technologies for manufacturing or pollution-generating were applied by many factories, but technologies for controlling pollution were not developed. Also, in the medical field, few studies were made on the potential relationship between pollution and asthma and its medical treatment. However, spurred on by pollution suits, major advances were achieved in scientific and technological research on environmental pollution. Compared with other countries, Japan moves surprisingly faster once we get started. Up to that time, Japan's world-beating technology was limited to manufacturing. We did not have any pollution control technology, but this has changed. After the pollution lawsuits and the anti-pollution movement, huge investments were made in pollution control technology development.

Data from the Ministry of the Environment shows the size of the investment Japan has made in pollution control. For example, after pollution was condemned by the judiciary, the defendants, six corporations that together comprised the first industrial complex, invested more than 10% of the annual output of not only the chemical industry in Yokkaichi City but of the whole output of Yokkaichi City in pollution control. Yokkaichi's second industrial complex was already operating at that time, and the third industrial complex was about to be completed. The investment was not 10% of profits, but 10% of gross sales or output. At the same time, the citizens who were victims, and who did not have much in the way of civil rights, started to influence the political process through voting, for instance. There were many other changes. This was the time that Japan all at once embarked on pollution control.

In 1976, Japanese environmental policy was praised by the OECD for having eliminated damage to human health and damage by chemical substances through enacting the most draconian regulations in the world. At the same time, however, Japanese environmental administration was criticized for paying little attention to quality of life or public amenities. This reveals the extent to which everybody strove to implement pollution control only after problems arose. In the 1980s, pollution which severely threatened human health had eased to a certain degree, but urban problems related to public amenities or quality of life, as well as problems related to the nature conservation, remained unsolved.

Our experiences with pollution have taught Japan the importance of preventive approaches, which need to be taken comprehensively and systematically, not just separately for individual



emission sources. One such example is an approach called Environmental Impact Assessment was imported from the US. However, both industry and government were extremely reluctant to include citizens in procedures for assessment considering a severely confrontational situation during 1960s and 1970s. As a result, environmental impact assessment was introduced in Japan as a technical method, but was implemented by law only after the 1990s. I previously said that Japan "started to move dynamically", but the problem that we don't take action until it occurs still remains.

The awareness of citizens, not only victims, of the need to preserve the natural environment has grown. Now, unlike before, there was no confrontational relationship between industries and victims. However, the pattern is still one of confrontation - one party is on the attack and the other party is on the defense. In other words, the industrial sector believes they must work harder to prevent claims from citizens, but on the other hand, citizens believe that unless they maintain pressure on the industrial sector, they will not take action. Such relationship still continued in the 1980s.

Local governments actually play a leading role in urban problems. National government has authority over pollution control, but how to handle each city is determined by each local government. Since decentralization is not firmly established in Japan, in some aspects including financial affairs, local governments could not play an important role in urban problems, although ultimately they had to.

Then, global environmental problems arose. The chief characteristic of global environmental problems is that there are already limits to resources, energy, and the environment. Problems must be solved within a certain frame along with economic growth. Unlike previous programs aiming to achieve economic growth without generating pollution, problems with the 3Es (energy, the environment, and the economy) have to be solved simultaneously.

In addition, science cannot yet provide us with all the answers. Global environmental problems include long-term issues and extremely comprehensive issues. We are not yet sure what action will lead to what result. One American scholar, for example, has even started to say that global warming is not scientifically proven.

As I have already mentioned previously, the present socioeconomic system of mass production and mass consumption must be changed before dealing with global environmental problems. The efforts by the industrial sector alone are insufficient, and citizens' action of

simply demanding is also insufficient likewise. Solving environmental issues must involve partnership of all parties: the administration, industry and the public. Moreover, cooperation with other countries is fundamental. These aspects of global environmental problems differ from other environmental problems in the past.

In the 1990s, Japan changed the Basic Law for Pollution Control to the Basic Environment Law, which covers global environmental problems. Under present law, we must meet head-on with not only pollution but worldwide environmental problems. We need to change our social structure to a recycling-based socioeconomic structure while accepting the limits to our resources and energy, and the capacity of the environment to absorb the stress we are placing on it. Also we need to build a socioeconomic system that enable co-existence with the natural world. For this purpose, participation of all citizens and establishment of international cooperation are indispensable. These concepts were incorporated in the Basic Law for Establishing a Recycle-based Society in the year following the Rio Earth Summit.

More recently, the Law for Promotion of the Countermeasures against Global Warming has been stipulated to tackle global warming. The actual origin of this law derives from problems with handling waste. Even more recently, a law has been formulated based on the need to change to a recycling-based socioeconomic system. The idea is to manufacture products using less resources, reduce load to the environment during production processes and product use, and to reduce final waste, thus simultaneously reducing the environmental load and using resources as efficiently as possible.

However, as I have said, concerning global environmental issues like global warming, we are not actually sure which action leads to which effect. In addition, environmental problems have started to be taken seriously in international and domestic politics only in the last decade. Nothing is proved, though, to have dependable results. The Basic Environmental Law and Basic Law for Establishment of a Recycle-based Society are stipulated as a framework. Future strategies are still under discussion. What to set as goals, what approach to take to attain these goals, what alternatives we have, what indicator should be used to adopt these alternatives, and so on, are still open issues. At present they, including the Central Environment Council, are involved in examining policies and concepts to identify new problems. To enable these methods to solve environmental problems, we need to focus on R&D for new resource conservation, energy conservation, and the environmental industry. In addition to legal restrictions, it is becoming increasingly clear that "voluntary commitment" by corporations in carrying out environmental protection is strongly desired as the most

effective way to take action. The same applies to citizens.

For example, imposing economic burden or offering incentives for positive economic support will be possible measures to facilitate voluntary action. Imposing economic load (tax) to the citizens who act environmentally bad behavior, for example, may discourage people from taking such actions. It is also necessary to disclose information to clearly notify what will happen by taking which action. Information disclosure is not for citizens only. Corporations can also benefit by disclosing information and being evaluated by citizens. Every party, including citizens, must mutually disclose information. Since it is hard to take action without knowledge, information disclosure plays an extremely important role.

We should thus learn what we can do, and provide opportunities for mutual education and learning to realize collaboration with other parties. It is not clear enough yet how we can best combine these measures, but I think we will find a new paradigm, and develop it based on these approaches.

Again, industry will clearly play a key role in forming social economy with their technology, resources, and their organizational advantages. In other words, the 20<sup>th</sup>-century-oriented industry cannot survive in the 21<sup>st</sup> century unless they find a new paradigm. I know that this symposium will not provide all the solutions we are waiting for, but I hope it will provide at least an opportunity to think about them.

Lastly, I would like to express my view on our task of building a partnership among national/local governments, citizens, and corporations playing core roles. I believe we won't achieve any progress unless we confront, accuse, and fear each other as we did in the past.

Thank you for your attention.



**PARTNERING FOR SUSTAINABILITY: THE COLLABORATION IMPERATIVE**  
Utilizing Business – NGO Relations to Achieve Sustainable Development

William Glanville  
Vice-President and Chief Operating Officer  
International Institute for Sustainable Development (IISD), Canada  
Trustee, IGES

**1. Introduction**

I would like to thank IGES for inviting me to be part of this symposium, and to participate in the entire week of activities making up the Hyogo Business – Environment Week. It has been very instructive and has helped me to put my thoughts into a better context.

As we approach the World Summit on Sustainable Development, the challenge for all of us is to understand what is necessary to achieve tangible progress towards sustainable development.

The agenda for achieving sustainable development is an agenda for change; therefore, the challenge is to manage change in a complex and interconnected world of often competing objectives.

My presentation today will examine some of the relationships at work in the field of sustainable development and suggest some ways in which their dynamics can be harnessed in favor of achieving progress.

These may be no more than “brilliant glimpses into the obvious”, but sometimes it helps to restate the obvious in order to get a fresh perspective on the key issues.

So, the first brilliant glimpse into the obvious that I will offer is that **there is no single solution to achieving sustainable, no single pathway:**

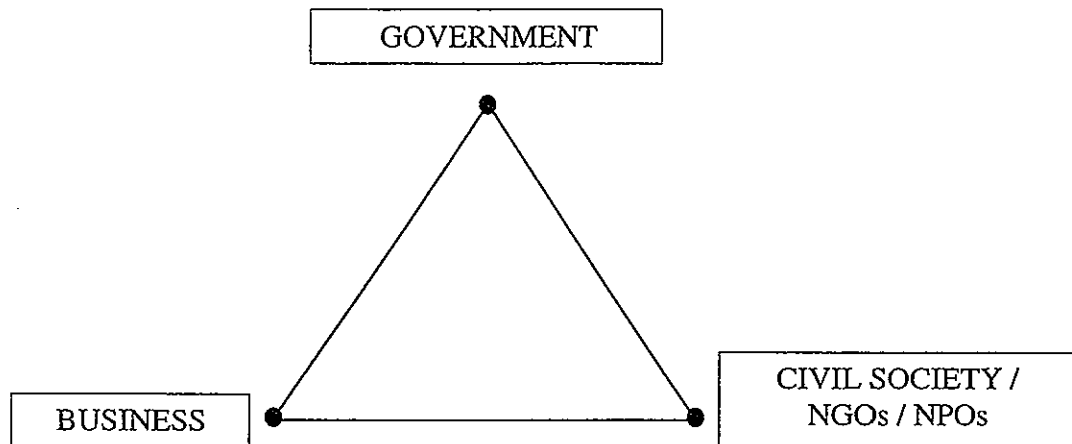
- governments alone can't achieve it
- market forces alone can't achieve it, and
- actions at the local level alone can't achieve it

**We need multiple actions at multiple levels working together to achieve progress.** Only then do we have the degree of change to move more quickly to sustainable development.

**2. The Triad Relationship**

I want to start with a simple model that depicts the relationship among the three sectors that contribute to achieving sustainable development: government, business and civil society.

## The Triad Relationship



This model is meant to show two things:

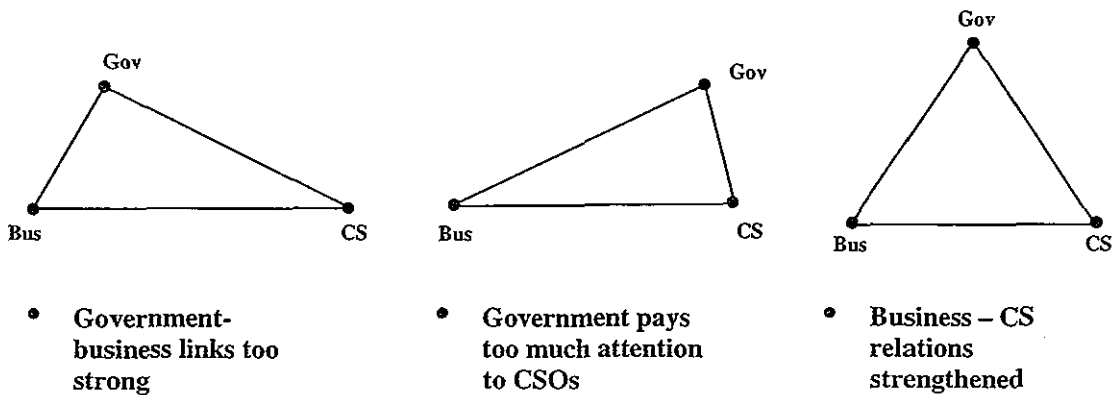
- that each sector has distinct responsibilities, and
- that the actions of each sector influence, and are influenced by, the other sectors.

With respect to **responsibilities**

- government
  - represents the interests of the electorate
  - negotiates and makes international commitments
  - provides the legal/regulatory framework that governs other sectors; sets national policies
  - monitors national performance and takes action to achieve compliance
- business
  - represents the interests of shareholders
  - seeks to achieve economic goals in the marketplace
  - acts to protect its ability to operate independently through adopting codes of conduct, undertaking voluntary actions, etc.
- civil society
  - represents the interests of “stakeholders”, those who can affect, or are affected by, an organization’s purpose
  - emphasizes values, beliefs and principles related to environmental, social and human rights, broadly environment and development
  - competes in the marketplace of ideas for the allegiance of the public
  - monitors government and business sectors and takes action to hold them accountable for their actions

This triad relationship can also be used as a dynamic model to illustrate the changing strength of the relationships between the three sectors, as shown here:

### Dynamics of Intersectoral Relationships



The first diagram shows how, traditionally, civil society has felt that business and government act too much in concert. More recently, business feels that NGOs have been allowed to become too large a part of governmental and intergovernmental decisionmaking. The last diagram shows the three relationships in balance as the old antagonism between business and civil society begins to soften.

### 3. The Civil Society Sector

Before I go any further, I want to make some points about terminology.

First, a definition of civil society<sup>1</sup>:

“variously, any grouping of people for collective interest, in particular in pursuit of the public good; any group not part of the market or the state system; any group that is voluntarily entered into and not based on ethnic or kinship ties.”

Second, I want to be clear that I will use certain terms interchangeably: Civil Society / Civil Society Organizations (CSOs) / Non-governmental Organizations (NGOs) / Not-for-Profit Organizations (NPOs) / stakeholders

Finally, the term Civil Society is used to describe a bewildering array of groups and organizations - from activist groups to development organizations delivering aid and providing essential public services. Other NGOs are research-driven policy

<sup>1</sup> North-South Institute, Canadian Development Report 1999, Renouf Publishing Company (Ottawa, 1999)

organizations, looking to engage with decision-makers. Still others see themselves as watchdogs, casting a critical eye over current events.

They hail from north and south and from all points in between - with the contrasting levels of resources which such differences often imply. Some are highly sophisticated, media-savvy organizations like Friends of the Earth and WWF; others are tiny, grassroots collectives, never destined to be household names.

Although it is often assumed that NGOs are charities or enjoy non-profit status, some NGOs are profit-making organizations such as cooperatives or groups which lobby on behalf of profit-driven interests. For example, the World Trade Organization's definition of NGOs is broad enough to include industry lobby groups such as the Association of Swiss Bankers and the International Chamber of Commerce.

Such a broad definition has its critics. It is more common to define NGOs as those organizations which pursue some sort of public interest or public good, rather than individual or commercial interests.

Even then, the NGO community remains a diverse constellation. Some groups may pursue a single policy objective - for example access to AIDS drugs in developing countries or press freedom. Others will pursue more sweeping policy goals such as poverty eradication or human rights protection.

However, one characteristic these diverse organizations share is that their non-profit status means they are not hindered by short-term financial objectives. Accordingly, they are able to devote themselves to issues which occur across longer time horizons, such as climate change, malaria prevention or a global ban on landmines. Public surveys reveal that NGOs often enjoy a high degree of public trust, which can make them a useful - but not always sufficient - indicator of the concerns of society and stakeholders. As I will point out later, the ability of NGOs to maintain their legitimacy in the public's view is an important factor.

#### **4. The Business Sector**

I am not here to talk about the business sector specifically, but it is useful to consider the business case for sustainable development. In September, 2001, the World Business Council for Sustainable Development, as part of its preparations for the World Summit on Sustainable Development, published a statement<sup>2</sup> on this topic. The fundamental case is stated in the following way:

“Pursuing a mission of sustainable development can make our firms more competitive, more resilient to shocks, nimbler in a fast-changing world, more unified in purpose, more likely to attract and

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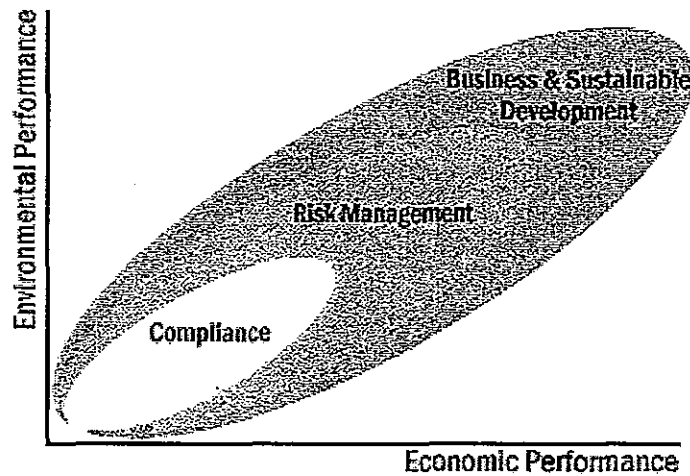
<sup>2</sup> World Business Council for Sustainable Development, The Business Case for Sustainable Development, WBCSD (Geneva, 2001)



hold customers and the best employees, and more at ease with regulators, banks, insurers, and financial markets.”

As part of IISD’s business and sustainable development website, we have developed the following depiction of the journey to achieve sustainable development, from a stance of basic compliance, to one of more active risk management, to a proactive stance that fully integrates the principles of sustainable development into the firm’s planning and operations.

### The Sustainable Development Journey



The WBCSD paper also comments on the importance of Corporate Social Responsibility, which it defines as:

“the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life.”

This view is reinforced in the work of Svendsen et al.<sup>3</sup> who focus specifically on the importance of building strong stakeholder relationships as a key element of business strategy. They put forward the hypothesis that “the ability to create and sustain high quality stakeholder relationships is a necessary management competence, without which financial success becomes unlikely.”

<sup>3</sup> Svendsen, A., Boutilier, R.G., Abbott, R.M. and Wheeler, D., Measuring the Business Value of Stakeholder Relations. Part One, Centre for Innovation in Management (Vancouver, 2001)

Svendsen makes the further point that stakeholders act as gatekeepers to resources that firms need:

- customers decide whether or not to give the company money
- communities decide whether or not to let a company occupy a location in their area
- employees decide whether or not to share their innovative ideas with their employer or defect to a competitor

Stated another way, poor stakeholder relationships make stakeholder controlled resources less accessible.

So, the business case for developing and maintaining positive stakeholder relations is clear:

- shareholder risk is reduced through improved knowledge of the business environment
- innovation is enhanced through better working relationships among staff, suppliers and other partners
- reputation and brand value are strengthened through the support of the community and customers
- access to new markets is increased

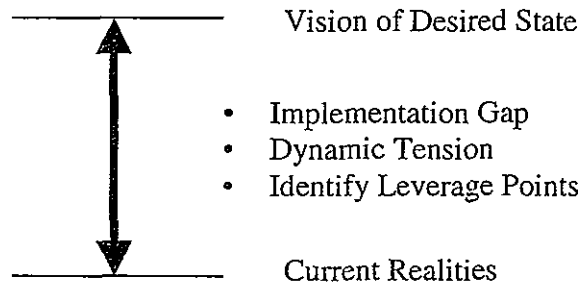
In summary, from the business point of view, there is an increasingly strong case for both sustainable development and improving stakeholder relations.

## **5. A General Model for Collaboration**

I want to shift gears now to comment on the larger challenge facing all of us at the moment. In preparations for the World Summit on Sustainable Development, the fundamental point emerging from the various preparatory meetings is the need to focus more effort on the implementation of plans agreed at the Earth Summit 10 years ago in Rio.

In this section, I will discuss what we have learned at IISD as a result of our research on knowledge networks and how this can be used to bridge the gap between desired goals and real action.

## Bridging the Implementation Gap



This figure depicts the gap between the current state of the world and the desired state of a more sustainable world. We all feel the dynamic tension of trying to bridge this gap through our work, our personal actions, and our community activities. Our task is to identify the key leverage points that allow us to move from the current reality to the future vision.

**A key message of this presentation is that tangible progress towards sustainable development will only occur if all relevant sectors act together, based on relationships of understanding and trust.**

## Engaging the Decisionmakers

- Change requires taking risks.
- Willingness to take risks is based on trust.
- Trust is based on relationships.



This figure demonstrates the importance of stakeholder relationships in achieving actions towards an agreed goal.

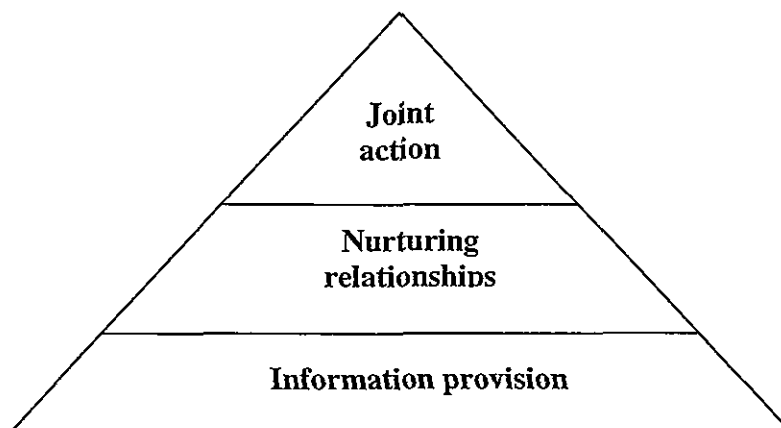
**Relationships, not information, are at the centre of change.**

We like to think that sustainable development is a logical process; that if we can just muster the proper arguments and put them in the proper formats, people will agree on a course of action, and will act. But it's not true. Sustainable development requires

building trusting relationships on a global scale and that's something a lot more difficult to achieve.

The stages of engagement can be thought of as the levels of a pyramid, with the highest levels of engagement at the top of the pyramid.

### **The Engagement Pyramid**



The levels move from providing general information to decisionmakers, through traditional information and communications methods (mailing reports, developing websites, promotion of products and services)...

To nurturing a relationship with them, through conversations at conferences, email discussions, workshops with decisionmakers...

To undertaking joint actions: decisionmakers and stakeholders are acting together to implement specific solutions.

The importance of collaboration across sectors, leading to partnerships and joint action for sustainable development is highlighted by the introduction of Type 2 outcomes as a key element of the World Summit. The Summit will not only result in a high-level political declaration and a program of action for the further implementation of Agenda 21, which are fully negotiated and agreed to by all governments (Type 1 outcomes). Type 2 partnerships will also become an integral part of the Summit, even though they will not be negotiated by all present. Rather, they need only be agreed by those directly involved, who will commit themselves to taking the partnerships forward and making them a success.

The general guidelines for Type 2 or partnership initiatives were developed at PrepCom3; they are as follows:

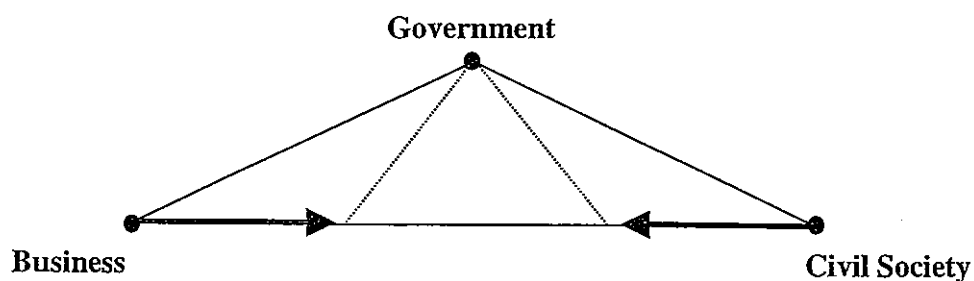
- **link to Agenda 21** – they should help to achieve the further implementation of Agenda 21 and the Millennium Declaration goals
- **complementary to Type 1 outcomes** – they should complement, not substitute for Type 1 outcomes negotiated by governments
- **voluntary** – they are of a voluntary, self-organizing nature, not subject to intergovernmental negotiation
- **participatory** – they can be initiated by any sector but will involve those stakeholders whose activities have direct impact on the achievement of the partnership's goals
- **new/value added** – they should make a particular contribution to the outcome of the World Summit and add value beyond what would have happened otherwise
- **integrative** – the design and implementation should integrate economic, social and environmental dimensions

The point I wish to make here is that, up to now, many of the international processes aimed at achieving sustainable development have relied on commitments negotiated by governments. **It is now clear that intersectoral partnerships are a vital part of taking action and achieving real progress. Complex problems require action on different levels by multiple stakeholders.**

#### 6. Business – NGO Relations

Having made the general case for collaboration, I want to come back to the original triad model for a moment and comment on the factors that are influencing the Business – NGO side of the triangle.

### The Triad Relationship: Business – NGO Relations



I noted earlier that prior to the 1990s, the traditional relationship between the business and civil society sectors was one of distrust, antagonism, and outright conflict. But the role of both sectors is shifting to include different relationships than in the past.

Non-governmental organizations have played a major role in pushing for sustainable development at the international level. Campaigning groups have been key drivers of intergovernmental negotiations, ranging from the regulation of hazardous wastes to a global ban on land mines.

But NGOs are not only focusing their energies on governments and inter-governmental processes. With the retreat of the state from a number of public functions and regulatory activities, NGOs have begun to focus their efforts on corporations, many of which can rival entire nations in terms of their resources and influence.

Aided by advances in information and communications technology, NGOs have helped to focus attention on the social and environmental externalities of business activity. Multinational brands have been acutely susceptible to pressure from activists and from NGOs eager to challenge a company's labour, environmental or human rights record. Even those businesses that do not specialize in highly visible branded goods are feeling the pressure, as campaigners develop techniques to target downstream customers and shareholders.

In response to such pressures, many businesses are abandoning their narrow shareholder theory of value in favour of a broader, stakeholder approach which not only seeks increased share value, but cares about how this increased value is to be attained.

Such a stakeholder approach takes into account the effects of business activity - not just on shareholders, but on customers, employees, communities and other interested groups.

There are many visible manifestations of this shift. One has been the devotion of energy and resources by companies to environmental and social affairs. Companies are taking responsibility for their externalities and reporting on the impact of their activities on a range of stakeholders.

Many companies are also striving to design new management structures which integrate sustainable development concerns into the decision-making process, as one of the case studies cited later will demonstrate.

Much of the credit for creating these trends can be taken by NGOs. But how should the business world react to NGOs in the future? Should companies batten down the hatches and gird themselves against attacks from hostile critics? Or should they hold out hope that NGOs can sometimes be helpful partners?

The new wave of business-NGO collaborations differs from the relationships of the past. We are now seeing the birth of strategic partnerships that are designed to tackle both internal operational issues and the external impacts of corporate activity.

Modern NGO-business partnerships involve NGOs and other stakeholders in decisions that affect core business practices. As a consequence, corporate social responsibility no longer consists merely of the 'nice' things a company might do with its profits; increasingly, it goes to the heart of how companies make those profits in the first place.

A notable trend in business-NGO relations has been that of development NGOs in the northern hemisphere promoting sustainable development among companies in the south. For example, the British NGO Fairtrade Foundation launched a pilot project in 1997 to work with British companies in developing codes of practice to guide relationships with their southern suppliers.

A similar initiative, but with a broader mandate and with UK government backing, was launched in 1998. The Ethical Trading Initiative (ETI) is an alliance of companies, NGOs and trade union organisations committed to working together to identify and promote good labour practice, including monitoring and independent verification. Participants include supermarket chains J. Sainsbury and Tesco, leading garment industry players such as Levi Strauss and the Pentland Group, and NGOs such as Oxfam and Save the Children.

The situation is different in the south, where NGOs are not as well-financed as their northern counterparts. Since the mid-1990s, international development agencies and charitable foundations have been making funds available for NGOs that seek to improve the social and environmental performance of businesses operating in their communities.

In addition to such one-on-one collaborations, some NGOs are helping to establish systems of certification in order to enable companies to monitor, measure and then credibly communicate social and environmental best practice to consumers. For example, environmental NGOs such as the World Wide Fund for Nature (WWF) have helped set up a new globally applicable system for the endorsement of products from properly managed forests - the Forest Stewardship Council accreditation, certification and labelling scheme. Instead of waiting for intergovernmental regulatory agreements, or for full implementation of existing regulations, the NGO spearheaded the creation of a new organization, with an accelerated timeframe for moving the industry towards sustainability.

All of this is to say that there are mutual benefits to a strengthened Business – NGO relationship.

The benefits for business are, among other things:

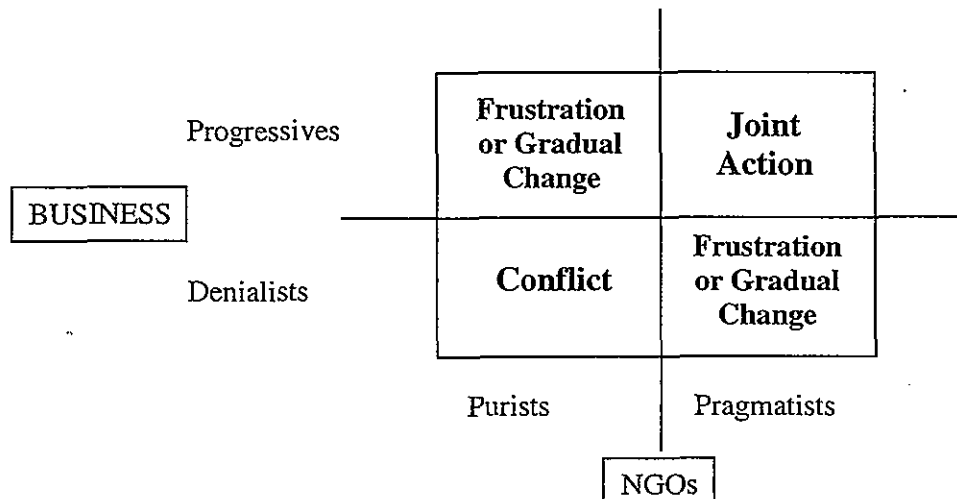
- credibility among a wide range of stakeholders
- license-to-operate in communities
- marketing opportunities in new markets or increasingly selective markets
- expertise and innovation from employees and partners
- networks of new stakeholder relations

The benefits for NGOs include:

- accountability for social and environmental impacts
- transparency of business operations
- progress towards sustainable development goals
- expertise and contacts within the business sector

To summarize this section of the presentation, I will use the following model.

### Evolution of Business – NGO Relations



This model, fairly or unfairly, characterizes businesses as falling into two types – progressives and denialists. And it classifies NGOs in two ways – as pragmatists or purists. The lower left hand cell is where most of the action was prior to the 1990s. However, over time, as the relative positions have changed, the nature of the interaction has changed and relationships have migrated in many cases to the upper right hand cell.

To illustrate some of these dynamics, I will describe a two cases from our own work at IISD, and one case from here in Japan.

#### 7. Case Examples

##### Case Example 1 – Shell Advisory Panel on Greenhouse Gas Management Plan



In June, 2000, Shell Canada announced the establishment of a Climate Change Advisory Panel to help the company develop and implement a greenhouse gas management plan for the expansion of its oil sands extraction operation in Alberta.

The NGO participants on the panel are:

- the International Institute for Environment & Development
- the World Resources Institute
- the Pembina Institute
- the Environmental Defense Foundation
- the International Institute for Sustainable Development
- the Athabasca Tribal Council.

It took several months of discussions between Shell and the NGOs to reach a common understanding of the mandate of the group, establish ground rules for the panel, and work through issues of concern. Some of the points that needed to be worked through included:

- would real action occur as a result of the panel's advice?
- payment or non-payment for time and expenses of participation
- scope of the panel's influence – Shell Canada only or Shell International?

Throughout this initial period, Shell had to continuously reassess its position.

Ultimately, the panel's mandate was broadened to advise Shell Canada on company-wide emissions, not just those of the oil sands. And one of the meetings was held in London with the Shell International Board. The panel has met about eight times so far and has agreed on a target for greenhouse gas emissions that is substantially more challenging than the original targets set forth by Shell.

There have been two key factors in the success of this project so far:

- establishing trust between company and NGO participants: Shell had to demonstrate its seriousness with respect to setting and achieving targets that are a stretch for the company. The NGO members feel that Shell has been very forthcoming on the issues raised and very responsive to the questions and suggestions made
- maintaining the commitment of the most senior people: All of the meetings have been attended by the Shell Canada CEO and his senior staff, as well as the senior NGO appointees.

Issues for the future relate to what will be the future role of the advisory Panel. The expanded oil sands operation will not be implemented for another year or more. How effectively will Shell be able to implement the GHG management plan? Also, how will Shell Canada respond to the Canadian government's plan for meeting its national target for GHG emission reductions?

## **Case Example 2 – Cleaning the Air with Renewable Energy (CARE) Coalition**

The CARE Coalition is an ongoing initiative, jointly spearheaded by Suncor Energy and The Pembina Institute for Appropriate Development, which has enjoyed the support of nearly 20 companies and NGOs including Friends of the Earth, Shell Canada, TransAlta, the Toronto Environmental Alliance and the International Institute for Sustainable Development.

Its purpose is to champion short-term tax reforms which will bridge the gap until Canada introduces a domestic greenhouse gas emissions trading program, expected in 2004. The Coalition has lobbied the federal government to adopt two tax measures which would promote the development of renewable energy technologies including wind, solar and geothermal. The two measures are:

- A consumer tax credit to encourage uptake of "green power" and,
- A producer tax credit which would off-set some of the costs of investment in new renewable energy projects.

Suncor and Pembina set out to convene a coalition of like-minded NGOs and companies, describing the initiative as an 'environmental policy coalition' - one which could demonstrate a collective commitment and define common ground – a group of progressive companies working with a group of pragmatic NGOs.

An environmental consultant who guided the coalition-building process commented that personal relations have been the driving force. According to him, it is these relationships which helped to cement the coalition. Because most of the players were known to one another - and trusted by one another - they were comfortable about identifying their common ground and lobbying together, without fear of hidden agendas or ill intentions.

The consultant is hopeful that at least some of the Coalition's proposals will make their way into the Government's financial blueprints. He is enthusiastic about the process of coalition-building between NGOs and business. 'It's been an exciting and fun experience,' he says.

- Current NGO members: Friends of the Earth, International Institute for Sustainable Development, Pembina Institute for Appropriate Development, Toronto Environmental Alliance, Pollution Probe, Federation of Canadian Municipalities
- Current business members: BC Hydro, Toronto Hydro, BP Canada, Suncor, Shell, Benign Energy Company Canada, Dofasco, Enbridge, Ontario Power Generation, TransAlta, WestCoast Energy.

### **Case Example 3 – Green Purchasing Network**

The Green Purchasing Network (GPN) was established in 1996 to promote green purchasing among consumers, companies and governmental organizations in Japan. As of May 2000, it had about 2,150 member organizations, including corporations, local autonomous bodies, consumer groups, environmental NGOs, and cooperative associations. GPN promotes the ideas and practices of green purchasing, draws up purchasing guidelines for each type of product, publishes environmental Data Books on various products, holds seminars and study meetings, and awards commendations to organizations that have shown remarkable performance in implementing green purchasing.

The GPN members consist of major big businesses, small-and-medium-sized enterprises, the National Environment Ministry, local government bodies, consumer organizations, and environmental NGOs, including: NEC, Sony, Toyota, Honda, Nippon Steel, Canon, Japan IBM, Tokyo Gas, Nissan, Mitsubishi corporation, all the prefectural governments, several municipal governments, WWF-J, and Japanese Consumers' Co-operative Union.

Soon after the GPN was launched, it began to create the Principles of Green Purchasing. The GPN executive board members from various sectors met many times to build consensus on the Principles for half a year. Then the Principles were finalized after gathering comments from all the members. The Principles have been revised in 2001, and now consist of the following four major principles:

- consider the necessity before purchasing
  - note the environmental impact of a product at all stages of its life cycle
  - consider corporations' and distributors' environmental performance
  - promote the gathering of environmental information when purchasing products
- These principles are actually reflected in the green purchasing policies drawn up by many of the member companies and government bodies.

Based on these principles, the GPN has also been drawing up specific Purchasing Guidelines for each category of products. So far Guidelines have been completed for a wide range of products, including: copiers, printers, facsimile machines, personal computers, office furniture, lighting apparatus and lamps, motorcars, home appliances, and offset printing services. Guidelines for hotels and lodges are under development.

The GPN has also published the "GPN Data Book for Green Purchasing", which provides purchasers with quantitative/qualitative environmental information on each product in accordance with the Purchasing Guidelines.

Since green purchasing power must be influential enough to change industry through the market, promoting implementation of green purchasing is the other important GPN activity, together with providing information as mentioned above. So, GPN is also engaged in the following activities to promote green purchasing:

- Hold nationwide and regional seminars and exhibitions throughout the country
- Promotes success stories of green purchasing

- Award commendations to excellent members practicing green purchasing
- Conduct a survey on the current status of green purchasing, and on consumers' awareness
- Publish newsletters
- Undertakes public relations activities focused on the mass media

Along with the establishment and expansion of the GPN activities, stakeholders are increasingly interested in green purchasing. Green purchasing is often introduced on TV or in newspapers, while green purchasing is frequently chosen as a theme for seminars sponsored by the governments or private companies. In particular, local governments and major corporations which are large purchasers, are generally moving towards implementing green purchasing. In response to these movements, many manufacturers are accelerating eco-design and development of eco-products in Japan.

I am very impressed with this large scale effort involving a wide range of stakeholders, which has been very successful in influencing the purchasing choices of individuals and organizations alike.

## 8. Lessons Learned

Having said all this, what can be concluded about lessons learned and best practices? I will divide my comments into two categories:

- partnerships in general
- Business – NGO relations.

Our work at IISD<sup>4, 5</sup> has led us to a relatively long list of conclusions about the characteristics and value of partnerships; I will cite only a few, which are relevant to the topic of this presentation:

- **it is not sufficient for sectors to work independently of one another.** The challenges of achieving tangible progress towards sustainable development are complex enough that they require intersectoral participation of stakeholders who can affect, or are affected by, the solution.
- to work effectively together, **partners should share a common vision** for, and commitment to the partnership; partners need to recognize, acknowledge and respect their differences, but also identify and focus on common or complementary interests; mutual respect and trust are critical
- **there can be significant asymmetries among the partners in terms of size, influence and resources.** In such cases, it is necessary to create circumstances that enable participants to recognize each other's resources, to

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<sup>4</sup> Creech, H. and Willard, T., Strategic Intentions: Managing Knowledge Networks for Sustainable Development, IISD (Winnipeg, 2001)

<sup>5</sup> Creech, H. and Willard, T., Working Together for Sustainable Development, Working Paper on the Results of an Electronic Consultation on Partnerships, IISD (Winnipeg, 2002)

... speak and listen to each other fully, and to challenge decisions that contradict their interests<sup>6</sup>

- **developing the right engagement strategies is a key leverage point** for bridging the implementation gap and achieving real progress towards sustainable development. The commitment and support of key leaders in each partner organization is essential
- **peak moments** – when the partnership has the most energy and cohesion – occur when the partners can see how they are accomplishing their objectives together
- partnerships can have a **beneficial impact on how the individual partner organizations** work on their own in the future
- **partnerships can lead to improved accountability** of individual sectors and organizations. This has the potential to lead to new forms of democracy, where decision making is shared across sectors.

With respect to key learnings about Business – NGO relations, the following points should already be evident from my earlier comments:

- NGOs are well organized, media savvy, active as shareholders, and connected by the Internet; they have used these strengths to scrutinize both business and government and hold them accountable for their actions
- civil society has been successful in creating pressure for business to be more open and transparent in the way it deals with the public, government, other businesses, and local communities
- active engagement by business with stakeholders and documented good performance can protect license-to-operate, drive product and service innovation, reduce legal liabilities, and improve business strategy
- achieving positive business – NGO relations is a vital step towards more integrated solutions for achieving sustainable development, particularly in addressing development in the South.

## 9. Issues for the Future

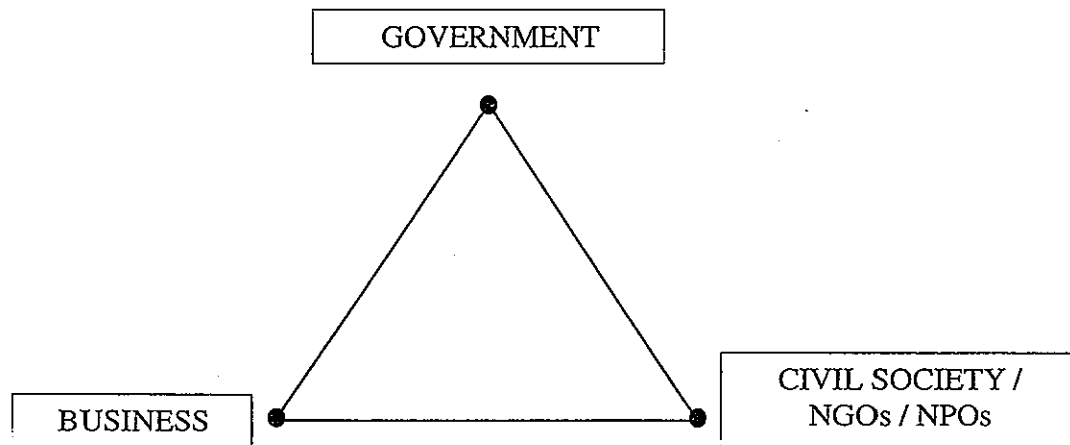
What, then, is the future of Business – NGO relations and its role in contributing to the achievement of a more sustainable world?

To return to the original triad model, it's clear that sustainable development is best achieved when there is some degree of balance among the three types of relationships.

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<sup>6</sup> Waddell, S. and Brown, David L., Fostering Intersectoral Partnering: A Guide to Promoting Cooperation Among Government, Business and Civil Society Actors, Institute for Development Research Reports, Vol. 13, No. 3, IDR (Boston, 1997)

## The Triad Relationship



As the role of nation states and national governments declines, civil society and the private sector must step up to implement the necessary changes. Murphy and Bendell<sup>7, 8</sup> speak of “the emergence of a new social realism” in which “new myths such as sustainable development hold the promise of bringing adversaries together to forge more ecologically secure and equitable world futures.” Within the public sector, influence is shifting from the national level to the international level through the strengthening of international organizations such as the WTO, the legally binding nature of multinational environmental agreements, and considerations of improved international environmental governance.

Although improved Business – NGO relations hold the promise of accelerating the progress to sustainability, key challenges remain:

- NGO legitimacy – how well can NGOs maintain their credibility and legitimacy in a changing world?
- Business transparency and accountability – how open will businesses become in response to external pressures to be so?
- Achieving sustainable development – how much further can intersectoral partnerships be utilized to bring about real change more quickly than traditional models?

To close, **people create change, not organizations.** If one critical ingredient of successful partnerships is the commitment of key individuals, then taking action to achieve sustainable development ultimately rests with individuals...all of us in this

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<sup>7</sup> Murphy, David F. and Bendell, Jem. In The Company of Partners: Business, Environmental Groups and Sustainable Development Post-Rio, The Policy Press (Bristol, 1997)

<sup>8</sup> Bendell, Jem, Terms for Endearment: Business, NGOs and Sustainable Development, Greenleaf Publishing (Sheffield, 2000)

## Panel Discussion

IGES International Symposium 2002 "Business and the Environment"

July 25, 2002

### *Coordinator*

Akihiro Amano

Director, IGES Kansai Research Center; Director, IGES, Japan

### *Panelists*

William Glanville

Vice-President and Chief Operating Officer, International Institute for Sustainable Development, Canada; Trustee, IGES (\*keynote speaker)

Ryokichi Hirono

Professor Emeritus, Seikei University; Director, IGES, Japan

Yutaka Miyakawa

Manager, Environmental Control & Energy Division, Kobe Steel, Ltd.

Han Wei

Secretary General, China Association of Environmental Protection Industry, China

Hitoshi Nakamura

Director of Special Project, Open University for the Environment (Curitiba, Brazil);  
Former Secretary of State for the Environment and Water Resources, State of Parana

### *1<sup>st</sup> ROUND*

#### **AMANO**

Today's theme is "Quest for the Market Supporting Sustainable Development," and the subtitle is "Partnership and Transformation of Socio-economy." From the end of August through September, the World Summit on Sustainable Development will be held in Johannesburg, South Africa, at which the results of the Rio Declaration of ten years ago and Agenda 21 will be assessed. Looking back on these ten years, although we have made some progress towards conservation of the global environment and eradication of poverty, the problems that remain are serious.

Just as was explained in Dr. Glanville's speech a little while ago, at the Johannesburg Summit, each party will be announcing their commitment, and the result of type 2 where partnership initiatives are discussed will be presented, in addition to the results of type 1 whereby a political declaration is made based on the matters agreed upon negotiation among countries.

There is such progress in style – you might call it progress – but I think it shows the seriousness of the problem.

Following comments from each panelist, we will then hold discussions about aspects

of such progress, feasibility of the autonomous transformation of the market economy system to the direction of sustainable society, which is one of the global trends, and practicability of establishment of a new socioeconomic system by forming partnerships.

We shall now begin the first round of panel discussion starting with Mr. Ryokichi Hirono.

## **HIRONO**

My theme is "Environmental Industry in Asia and the Pacific, Now and in the Future." For the last two days, experts interested in environmental industry of China, Korea and Japan gathered at the roundtable in Awaji Island. I am pleased to have such a gathering opportunity take place. It is hoped that in the future these important countries of Northeast Asia including North Korea and Mongolia can work together to further improve the environment.

Before mentioning the importance of the environmental industry, I would like to start with talking about environmental deterioration in the Asia-Pacific region, the outline of main policies to tackle pollution problems, current status in Japan and in other countries, emergence and growth of environmental industry, failure of the political system and principle measures against pollution problems, and finally possible solutions to improve on this situation.

First I'd like to talk about environmental deterioration in the Asia-Pacific region. With the exception of Japan, Australia and New Zealand, most of the countries in the Asia-Pacific region are developing countries. With their huge populations, India, China and Indonesia are typical developing countries. Environmental deterioration in these countries deeply involves rapid population increase, serious poverty and worsening distribution of income. Sustained pressure on natural resources such as farmland, forests and water, chemical fertilizer, widespread use of massive quantities of pesticides, deforestation, excessive grazing and dynamite fishing are all the causes of worsening environmental conditions. There is widespread pollution caused by rapid industrialization and growing metropolises, contaminated water and soil, and pollution of seas, soil lakes and rivers by toxic industrial waste and household refuse and so on.

An extremely large amount of environmental pollution accompanies wasteful use of energy resources due to globalization and intensive lifestyle, which is now spreading from advanced countries to developing countries.

An increasing amount of carbon dioxide is being discharged, but if you look at the GDP per energy consumption unit, you will see that there has been a huge increase in this statistic for all Asian countries in the 1990s, indicating how much energy efficiency has improved. Per capita CO<sub>2</sub> discharge has decreased in Japan, China, Korea and Indonesia while India remains status quo.

Next are the sources of CO<sub>2</sub> discharge. Energy production and industry are the main



sources of carbon dioxide emissions. In Japan, more carbon dioxide is now produced by the transportation sector than by the manufacturing industry; I think it indicates that industry has made a great effort in reducing CO2 emissions.

Concerning the risk of disease due to environmental contamination, the UNDP has announced that life expectancy has decreased in China, India and the Asia-Pacific region in its new human development report.

In each county, best efforts has been made to conquer pollution problems, however in developing countries, anti-pollution legislation and other legal measures such as establishment of environmental safety standards have been brought about by the efforts of foreign NGOs, the news media and increasing civil protest rather than the governments of those countries.

There used to be oppositions from private corporations claiming that environmental restrictions would make them unable to compete internationally, but to a certain degree they have gradually come to recognize the need for such measures.

Guidelines have been established to minimize the negative effects of environmental risk on the labor force, ordinary citizens, consumers and society at large, and the governments of developing countries have finally begun to monitor the situation to make sure the guidelines are being observed. In China for instance, legal action has been taken concerning destruction of the environment, indicating that citizens are placing more importance on environmental issues.

In order to respond to deterioration of the environment, monitoring, collection and analysis of data, legal government measures to bolster human resources and organization have finally come to be taken on the regional, local and national level.

International agreements concerning the environment such as the Kyoto Protocol have accelerated this movement, and there is now a movement to evaluate measures taken by developing countries for pollution control.

Looking at development of environmental industry in the Asia-Pacific region, you will see there has been excessive dependency on imported environmental technologies, products and services. Since the 1990s, there has been a steady shift toward domestic production. Some developing countries are advancing at a faster pace than others. Korea for example is developing at a dizzying pace, and China has also come a long way. India and Indonesia are unfortunately developing at a much slower pace.

I believe the fact that the environmental panorama both in Japan and overseas is gradually changing and the pressure of public opinion have contributed to steady growth and improvement of environmental industry that meets high and various environmental standards.

As seen in the adoption of the ISO 14000 series at large-scale Japanese and foreign countries and public institutions including nationalized businesses, there seems to be increasing concern and capacity for environmental management. At the same time,

remarkable growth has observed in the production of environment-related hardware, software and services, especially environmentally sound products and the Eco label.

There also has been enhanced administrative and legal support, as well as preferential treatment in tax and financial incentives to encourage the best effect of measures taken on the national and local levels.

The activities of multinational companies are especially important for developing countries of Asia. Japanese businesses are gradually extending their business into other countries of Asia. It is a welcome change that by observing Japanese restrictions and standards as they branch out into developing countries, these companies have a hand in enhancing the level of environmental restrictions and improving the environmental situation in developing countries.

The global market for environmental industry is worth over \$500 billion. Looking at the estimated data for China, Korea and Japan respectively as of 2010 concerning environmental services, utilization of environmental resources and environmental equipment, the environmental market of Japan is expected to exceed those of China and Korea with China and Korea playing catch-up. We will wait and see if the estimates will be accurate or not.

The total environmental industry market of Japan for the year 2010 is expected to be ¥40 trillion. In the case of China – this is my own personal estimate – the market will be worth 236 billion yuan; for Korea I would say about 31 trillion won.

The latent environmental industry market in the major cities of the Asia-Pacific region, though it is a very ironic way to put it, environmental industry grows in proportion with environmental deterioration itself. The environmental industry is born of an industrial process corresponding to environmental pollution and of government measures for dealing with pollution.

In the Asia-Pacific region, the industry was born of measures taken to fight pollution. Japan has already passed this stage and its market is expanding and is growing by the market mechanism. The same will surely apply to other countries in Asia in the near future and it seems to be already heading that way in China and Korea.

It is not a desirable situation that the environmental industry grows as a result of environmental deterioration. By learning from the mistakes of advanced countries, instead of repeating them, it is important for developing countries to work on prevention of environmental pollutions before it occurs. Based on their experiences, it is of paramount importance for countries such as Japan to work with developing countries to come up with some sort of plan for realizing the growth of the environmental industry in parallel with conserving the environment.

## **AMANO**

Thank you very much. The Second Tripartite Roundtable on Environmental Industry

– China, Korea and Japan was held the day before yesterday at which Mr. Hirono delivered keynote speech. Mr. Hirono gave us an extremely wide analysis of the current state of the environmental industry and made an important proposal based upon that analysis.

Our next speaker is Mr. Yutaka Miyakawa.

## **MIYAKAWA**

My presentation is entitled "The Current Status of Environmental Industry and Future Directions in Japan." Following the Special Speech by Chairman Morishima about transition of environmental problems in detail, I would like to talk about how industry, including the steel industry of which my company is a part, is dealing with environmental problems.

The steel industry consumes large quantities of energy; it accounts for 25 percent of the total amount of energy used by industry at large. In descending order, the industries that emit the most SO<sub>x</sub> are the electric power, paper and pulp, chemical and steel industries. The steel industry accounts for 10 percent of the total SO<sub>x</sub> emissions. We have been aware that mass consumption of energy causes a proportional amount of pollution for a long time and have been working on the environmental problems for many years.

The correlation between business and environmental problems has shifted to dealing with industrial pollution, urban pollution and global warming.

To deal with industrial pollution, the steel industry has installed so-called "end of pipe" dust collectors, desulfurization equipment, and is furthermore working on better operation, fuel conversion and recycling of water.

If you look at the transition of installation of exhaust gas desulfurizers in Japan, you will see that the number of units installed and treatment capacity grew dramatically in the first half of the early 1970s. This was done to comply with emission concentration regulation and volume control.

Referring to transition of SO<sub>x</sub> emission from the Kakogawa Works, you can see that by installing desulfurization equipment in sintering process in 1978, the level of SO<sub>x</sub> emission was cut down to less than half than before the equipment was installed.

Looking at the transition of environmental control equipment produced in Japan, you will notice there is was an increase in the first half of the 1970s, especially in dust collectors, desulfurization equipment, equipment for preventing air pollution, and equipment for preventing water pollution, with the environmental business sharply expanding to four times its previous size.

With regard to the current environmental investment at Kobe Steel, it is about ¥3 billion per year and additionally the administrative and maintenance cost of approximately ¥20 billion per year. More cost than this was invested on environmental

protection during the years spanning 1970 to 1980.

The age of urban pollution problems started to develop as we began to emerge in the market for environmental business by taking advantage of the technologies and expertise gained from overcoming industrial pollution.

From 1990 to 1995, the amount of environment control equipment production rose sharply. This increase reflects the increased installation of trash incinerators in major cities and recycling equipments such as water and sewerage systems.

Regarding actions on global environmental issues, it is encouraged to utilize production equipment in environmental businesses including recycling project. Also, international cooperation is being promoted in the field of environmental energy and new steel production technologies are being developed.

Concerning environmental problems in steel industry, as a way of preventing global warming, coupled with energy saving in steel production and by higher strength steel products, we are developing products designed to save energy while it is being used on the market. In keeping with the concept of building a recycling-oriented society, we have been involved in using dust containing carbon and iron as well as iron earth steel scrap in the steel manufacturing process, and have also used waste plastic in the process as a reducing agent.

In terms of reducing environment load, along with reducing the amount of toxic substances used, we are working on the development of new technologies for pollution free product (eco product) that provides the same or better quality compared to regular steel.

Relating to proactive measures to stop global warming and to develop recycle oriented society, the Japan Iron and Steel Federation has drawn up a voluntary action plan that calls for reducing CO<sub>2</sub> emission by ten percent of the 1990 level by 2010, and cutting down the amount of waste material to 25 percent of the 1990 level by 2010.

Taking a look at this figure of energy consumption in the steel industry, we have currently entered the second half period of the action plan 1999 – 2010, and the measures for reducing energy consumption have advanced approximately to the intermediate value in relation to the target of 10 percent reduction.

Primary action for reducing energy consumption in the steel industry is the installation of energy saving equipment. Other initiatives include recovering of used energy such as exhaust heat, making equipment more energy-efficient, promoting process integration and continuous processing. Other measures include operation improvement coupled with the technology to utilize coal that produces less heat.

As for the amount of waste produced and amount of resources recycled by Kobe steel, slag, dust and coal ash account an extremely large portion of the total waste produced in the steel industry. We have been recycling slag for some time now. At 98.1 percent, the recycling rate of slag is quite high. The remaining waste however may contain toxic

substances, which makes more difficult to handle.

As a result of our so-called "Zero Emission Project" with an aim to reduce the amount of waste ultimately disposed of, whereas the amount of waste disposed of to a little less than 600,000 tons in fiscal 1990, we have reduced the amount to roughly 30,000 tons, far exceeding the target of the voluntary action plan.

As an example of environmentally sound action by improving properties of steel, we are working on the development of high function steel designed to save energy. By way of providing our customers with steel that offers improved strength, better corrosion resistance, better heat resistance, better electromagnetic properties and better formability, it ultimately reduces the amount of energy consumed in various cases: regular use, transporting, reducing the amount of steel product used, and processing at customers.

An example of this effort would be the development of high tension plate steel having three times the tensile strength of conventional steel. Applying this plate steel to automobile production enable to realize weight saving of the vehicles. It also contributes to better fuel efficiency and energy saving.

As an example of recycling wastes produced in other industries, based on the Container and Packaging Recycle Law, Kobe Steel currently uses waste plastic as a reducing agent in blast furnaces; the steel industry at large uses waste plastic as a reducing agent in blast furnaces or coke furnaces. Because plastic contains carbon and hydrogen, these elements are used in reduction of iron ore.

As for international cooperation projects in the steel industry, about 900 such projects, including energy-saving and environment-related projects, have been carried out in the past 30 years.

Examples of projects carried out by Kobe Steel include designing energy saving program a steel mill in Romania, a model case of installing recovery system for heating furnace in Thailand, and tree-planting in Mongolia.

As pointed out earlier about the need for an approach to the environment together with society, concerning environmental conservation and creation, Kobe Steel has two funding system: the KOBELCO Natural Environment Conservation Fund and KOBELCO Environment Creation Fund, which support environmental conservation activities of local communities. An example of this would be funding for the Kobe Citizens' Power Plant.

According to the White Paper on the Environment, the future environmental business market is expected to grow to ¥40 trillion by 2010. Kobe Steel also wants to actively participate in eco-business.

The Kobe Steel Group is currently involved about 140 types of eco-business. If you access our Web site (<http://www.kobelco.co.jp>), we can send you a pamphlet at your request.

Toward the proposition to form a safe, healthy and sustainable society, there are three policies within the scope of our capabilities. One is efficient use of less reserve resources. The second is to minimize use of toxic substances. The third is participation in restoration and creation of the environment.

Relating to building environment-friendly communities, it requires collaboration with the government. We'd like to make a proposal to the government concerning the related plans being promoted.

Finally, regarding future direction of environmental management at Kobe Steel in the 21st century, we consider environmental problems to be among the most important challenges of its management themes. With top management making a commitment to these problems, by establishing a policy and breaking it down to plans, we ultimately hope to earn the trust of stakeholders, obtain stable operation and establish a sustainable corporate image.

Concerning today's theme, I think these three are the role of industry. First one is to focus on conducting more environmental-conscious business, that is, to take reducing environmental load into account constantly while engaging in a business. The second point is to have a hand in the industrialization of the environment, that is, to actively participate in eco-business using expertise obtained in past business activities. Finally, to conduct voluntary initiatives including information disclosure to the public is also an important role; that is, to lead the way in considering the environment in various fields.

#### **AMANO**

Thank you very much. Mr. Miyakawa also delivered a presentation at the 2<sup>nd</sup> Roundtable on Environmental Industry – China, Korea and Japan. Japan has gone through environmental problems such as industrial pollution, urban pollution problems as well as global environmental problems. In today's presentation, he has reported about advanced initiatives practiced at Kobe Steel in the given circumstances. He also touched on active initiatives of Kobe Steel concerning global warming, building a recycling oriented society, reducing environmental load, switching from "end of pipe" restriction to voluntary initiatives, taking advantage of these advanced initiatives in international cooperation and building a relationship between local governments and stakeholders.

We shall now hear from our third speaker, Mr. Han Wei of China.

#### **HAN**

I would like to talk about civil society in China regarding environmental protection.

Many Chinese civil societies, which could be thought of as the Chinese NGO for environmental conservation, were established in the early 1970s in conjunction with economic development and the development of environmental protection industry. Although the statistics are imperfect, there are currently more than 1,600 NGOs in the

country.

The NGOs involved in environmental conservation can be classified into four categories. First we have national level NGOs. An example of this type would be the China Association of Environmental Protection Industry (CAEPI) to which I belong. Another would be the Environmental Protection Foundation. The second type consists of environmental conservation groups that function at the local level. Regional groups, in other words. The next type is the campus type, in other words, the university community. This type of organization has been approved of as a campus activity by universities. Examples of this type would be the Green Life Association of Tsinghua University, Green Life Association of Beijing University.

The last type we call the "Folk Society", which consists of foreign exchange researchers and experts from overseas. Examples of this type would be the Friends of Nature and the Environmental Culture Center for Earth Village.

Another way is to classify these groups according to their function or objectives. There are 50 industrial associations in China such as the China Association of Environmental Protection Industry (CAEPI) and the Beijing Association of Environmental Protection Industry. There are also about 500 academic groups such as the China Environmental and Science Association and the Shandong Province Environmental and Science Association. Moreover, there are about 20 financial groups such as the Zhonghua Environmental Protection Foundation and the Chinese Deer Foundation as well as institutions for promoting environmental culture and media organizations.

Next I would like to describe the characteristics of Chinese environmental conservation groups. First of all, if we look at the history of development, most civil societies have a close cooperative relationship with the government on local and national levels. The China Association of Environmental Protection Industry (CAEPI) for example is registered and supervised by the Civil Administration Department, and their everyday activities are lead by the State Environmental Protection Administration.

The second characteristic is that none of Chinese civil societies receives funding from businesses, which is a significant difference between these groups and their counterparts in advanced countries such as the United States and Japan. We must also pay taxes to the government on the income we earn from our activities.

The third characteristic is our close relationship with counterparts overseas. We work closely with the environmental industries in Japan and Korea for example.

Regarding function and role of civil societies, the function of such groups is firstly to disseminate environmental conservation to the world. Second one is an academic contribution by way of holding workshops and so on to provide an opportunity for exchange of information and ideas to serve as a basis for decision making. The third role is to represent various industries and local communities with the aim of making

their expectations and desires reflected in the government policy, and disseminating information about environmental measures and restriction to the public and related businesses. The fourth function is to carry out activities related to environmental conservation such as holding international exhibitions of environmental industry and products. Finally, the role of civil societies is to introduce advanced technologies and management methods into China by exchanging information with concerned foreign institutions. I will take the China Association of Environmental Protection Industry (CAEPI) as an example for explanation.

The activities of this organization primarily consist of the following. The first is to draw up guidelines for the environmental conservation industry in order to improve overall structure of industry. The second is to involve in governmental policies such as environmental, technical and economic policy. Among these involvements, there are technical standardization of eco-friendly products, certification of these products and monitoring the market. The third is to provide information. The fourth is internal adjustment among industries with the aim of preventing monopolies from forming, promoting fair competition and maintaining corporate legal rights and profit. The fifth is to conduct studies and prepare statistical data and the final is to establish a system of technical cooperation.

At present, a total of 800 member corporations belong to the China Association of Environmental Protection Industry (CAEPI). The organization consists of eleven professional committees including city and state committees on the local level. Local organizations are independent, that is, the China Association of Environmental Protection Industry (CAEPI) is registered on the national level while local organizations are registered on the local level.

The eleven professional committees are: the Water Pollution Control Committee, Boilers and Kilns Desulfuration and Dust Removal Committee, Bag Dust Removal Committee, Electric Dust Removal Committee, Exhaust Gas Purification Committee, Noise and Vibration Control Committee, Solid Waste Treatment and Utilization Committee, Organic Food Committee (in process of being established), Ecology and Nature Conservation Committee, Municipal Waste Disposal Committee, and the Environmental Monitoring Instrument Committee.

## **AMANO**

Thank you very much. Mr. Han Wei also delivered presentations at on the Global Linkage Forum and at the 2<sup>nd</sup> Roundtable on the Environmental Industry held early this week. I found that environmental conservation activities in China are more wide-ranging than they are here.

Finally we shall hear from Mr. Hitoshi Nakamura of Parana State, Brazil.



## **NAKAMURA**

Parana State has developed friendly relationship with Hyogo Prefecture for 30 years now. Especially we have closely cooperated on environmental issues.

Brazil suffers from severe poverty. Although Curitiba, the capital city of State of Parana is extremely well off in comparison with the rest of the state, sixty percent of the workers earn less than 300 dollars per month. You might wonder what sort of lifestyle the people have in Brazil.

I would therefore like to provide a brief description of how the government has worked on industrial and environmental issues. Migration of the population to large cities has progressed to an extreme degree; 80 percent of the population of Brazil now lives in large metropolises. Despite the vast of land, 80 percent of the population lives in extreme poverty in the cities. The cities therefore suffer from all the typical city problems, such as disposal of waste and sewage.

With regard to the attempts toward sustainable society carried out by State of Parana and city of Curitiba, what they are actually doing about the environment is extremely important. I usually give a talk from government's point of view about changing the environment. I'd like you to observe their efforts made in spite of the extreme poverty they are facing with.

(Video starts)

In terms of soccer, they are on the global level, but they still have a lot more to learn about the environment. Ultimately, involvement of each and every person is indispensable to achieve sustainable society. Therefore, they need to cultivate their awareness. The motto of State of Parana and Curitiba city is to taking action starting with a small thing they can do. I think this has been practiced pretty well. In State of Parana, where there is still much that has not been violated by pollution, they are trying to do something despite the poverty. We would therefore like to deepen our technical and monetary relationship with advanced countries.

## **AMANO**

Thank you very much. Mr. Nakamura also participated in the Global Linkage Forum in Hyogo. The area is rich in natural resources, but we heard that they are facing with environmental problems. He gave a very clear explanation of the efforts made in the reported case: environmental education, water resource management, sustainable agriculture that can contribute to maintaining biodiversity, eco-tourism, maintenance of sustainable shoreline ecosystems and forests, waste disposal and monitoring of air pollution.

I am most interested in the fact that economic techniques are being used to a large

degree, which I think we all need to consider this.

## **2<sup>nd</sup> ROUND**

### **AMANO**

We shall now start the second round. As you have heard, each of our panelists specializes in a different field. In the first round, we heard about what sort of industry and civil societies are needed for sustainable development from various perspectives. In the second round, we shall once again hear from our keynote speaker, Mr. Glanville. Then our four panelists will give us their impressions and comments concerning the various presentations, after which we would like to have each of the panelists speak in particular about forming partnerships.

First is Mr. Glanville.

### **GLANVILLE**

Thank you very much. Well, overall I am very impressed with the case examples cited by the other speakers. I think this gives a lot of reason to focus on the fact that there are good things happening when we tend to focus on everything that's going wrong today. I believe that the key is to keep the momentum going through cooperation and to build on these good examples of proceeding in the right direction.

I think each of the speakers really provided interesting food for thought. The data presented by Prof. Hirono was very interesting, and gives quite an interesting perspective of the Asian picture and some good things to emphasize as we go forward.

With respect to the presentation by Mr. Miyakawa of Kobe Steel, I was also quite impressed with all of the data. I was left with the question about the extent to which the changes happening within the company that were driven by legislation as opposed to sort of consumer pressure. So I'd be interested in a little bit more clarification on that.

With respect to social society in China, it opened a totally new window in terms of my knowledge of what's going on there, and it was very encouraging, indeed.

And I very much enjoyed the presentation on the State of Parana, Brazil from Mr. Nakamura. I just wondered how this compares to progress in other states. Is Parana an very exemplary state that's well ahead of other states, or are there comparable things happening in other parts of the country?

### **AMANO**

Thank you very much. I would like to proceed and hear each person's opinion in the form of question and answer.

First of all, Mr. Miyakawa on whether the changes at Kobe Steel are due to

legislation or pressure from consumers.

### **MIYAKAWA**

As I explained a little while ago, one index for measuring the direction of the industry is whether or not this translates into business. We considered various aspects, but determined that the environment industry will not always produce a profit. The plan to foster the environment industry therefore needs to be backed by the government, so we are proceeding by putting forth our desires and problems we are facing.

There is also a lot of legal pressure, and as I explained before, there is no doubt that the environment industry, the process industry in particular has grown due to government environmental policy, primarily restrictions. But we are currently getting away from this, advancing if you will. We recognize that voluntary initiatives such as ISO 14001, laws that promote voluntary initiatives such as the PRTR Law and green purchasing are behind growth of the environment industry.

In this context, it doesn't mean that the environment industry absolutely will not progress without laws centered on restriction. We hope to link the search for ways to reduce load on the environment with profit.

### **AMANO**

Thank you very much. This is not black and white, clear-cut issue. In the past, restrictions might have induced such measures, but when handling extremely diverse environmental problems in the future, it seems that corporate initiative and pressure from some types of customers may be brought in business if that leads to benefit for the company.

Next we have a question concerning Parana State. Is Parana State ahead of the other states in Brazil or are other states engaged in this sort of thing as well?

### **NAKAMURA**

Parana State is advanced. Results differ largely according to the leaders. There are problems such as budget, but a little ingenuity and awareness can make a real difference.

An example of the opposite would be Sao Paulo. Sao Paulo is now one of the most polluted cities in the world. Just like Japan in the 1960s, the city has the attitude of "make money and build factories" and is looking the other way concerning pollution. I get the feeling they would rather clean up the pollution after the economy gets better rather than deal with pollution problems now. It would be nice if such developing countries could get good technologies and guidance from advanced countries. It seems that advanced countries are waiting until developing countries are destroyed by pollution. Instead, it would be much more effective to cooperate in proactive measures

and I even think it would ultimately be less expensive.

### **AMANO**

I see what you mean. I got the impression from the video we saw a little while ago that that this policy is not only progressive but dynamic as well. Mr. Hirono spoke about how the policy of "grow first, clean up later" is faulty. Do you have an opinion concerning this point?

### **HIRONO**

In advanced countries, as marketability, especially consumer choice has become very important, industry have made their best efforts to provide environment-friendly products produced by an environment-friendly process. However, in the case of developing countries, there is quite a difference.

If you consider only Asian countries such as Nepal, Pakistan and Sri Lanka, there is quite a margin - we cannot argue about developing countries in general.

In order to foster the environment industry, we, the project team at IGES select and study typical developing countries: Korea as the most developed of the developing countries though they are not a developing country any more, China as a country progressing to a certain degree where there is a large difference in the environment industry in cities and in farming villages, India as a country with extremely high intellectual level but is lagging behind in terms of environment industry, and finally Indonesia whose environment industry is most behind in progress.

While comparing countries that are developing slowly and those that are progressing to a certain degree, the IGES is studying on problems in fostering an environment industry. Considering what policies developing countries should adopt, our project team has been conducting research on what advanced countries and Japanese multinationals can do to help developing countries with fostering an environment industry, how the ODA should be used to obtain better results in fostering environment industry, and what the World Bank, Asia Development Bank and UNEP should do. Intermediate results will be known in March of the current fiscal year and the ultimate results will be known to a certain degree in two years.

It is difficult to generalize environment industries in developing countries. Considering each country individually to a certain degree and even regional difference in a single country, we need to study how Japanese businesses can participate and how the government can provide support for such countries.

### **AMANO**

Thank you very much. A little while ago we heard Mr. Glanville praise the progress in China likening it to opening a new window. Also, I would like to know if anybody

has a comment concerning the environmental policy of Parana State we heard about a little while ago or initiatives of advanced countries such as those taken by Kobe Steel.

## **HAN**

China is currently a developing country. The country's GDP has risen sharply in recent years, but there is still a huge gap compared with Korea or Japan. Though it is not sufficiently developed, the Chinese government has posted extremely high environmental conservation targets. In the background are demands from the government and those from the citizens, who are eager to participate in environmental conservation activities.

I read an article the other day that in large metropolises in China such as Tianjin and Beijing, residents must pay ten percent of their salaries for use of public facilities. I hear the rate is fourteen percent in developed countries. I think this could indicate that although China is a developing country, most people are deeply concerned and want to do something about environmental problems. Many NGOs in China are promoting the idea of greening.

In the near future the concept and principle of green procurement by the government and green purchasing by the citizens will begin to emerge in many places in the country. China has an extremely large market for environmental industry that will continue to grow.

## **AMANO**

Thank you very much. Mr. Glanville heaped praise on Japan's green purchasing network as an extremely good example of promoting green purchasing. I am very happy to hear that China plans to take such initiatives as well.

I'd now like to get a few questions from the floor and comments from our panelists.

## **FLOOR 1**

We learned today that circumstances involving development differ quite a bit from country to country. In this context, I would like to ask Mr. Glanville in particular what sort of aid should advanced countries, Japan in particular, provide for developing countries. Because Mr. Glanville in particular is studying sustainable development, I'd like to hear what he thinks Japan should do.

## **FLOOR 2**

As a common issue, I'd like to know specifically what measures have been taken for environmental education.

The Japanese-style public investment model requires quite a large investment and involves a lot of risk. I think Sao Paulo would serve as a reference for the future so

other cities can see what they have to do so as not to follow in Sao Paulo's footsteps.

The second question has to do with the relationship of businesses and the public. If you look back on the history of pollution, in Japan the people pushed business and the national government for restrictions and legislation. I'd like to know what should be done about the relationship among citizens, industry and government in developing countries. I think the role Japan should play in the future will be involved with this area.

The third question has to do with China. Some people are of the opinion that environmental problems may become serious in China. Privatization of industry is progressing, and I wonder what sort of relationship there will be between people and private industry. I'd like to know if environmental problems can be handled with the previous sense of one's self as a civil servant.

### **AMANO**

Concerning these questions, some were direct questions, and some might be answered in general terms. Anybody may respond to a question that was directed to someone else. We will start with Mr. Glanville and then ask each person in order what he thinks.

### **GLANVILLE**

Sure, thank you. Well, in response to the specific question about how do we help developing countries, there is actually a lot that we can do. I will speak mostly from the perspective of how we tackle at IISD.

A lot of our work is fundamentally based on trying to bridge the gap between North and South through capacity building, or, going back to the triangle of engagement strategies, basic sharing of information and cultivating relationships. We send young Canadians to a comparable organization in Senegal or South Africa to help them with development of information technology and building a better Web site, and then ultimately either joint research or joint workshops in the country which would engage decision-makers. So a lot of our work really does focus on bridging that North-South gap or the North-South divide, getting more information from developing countries about their sustainable development challenges on the Internet. Also right now we are conducting a project entitled the Southern Agenda on Trade and Sustainable Development, working with southern developing countries, to get a better understanding of their agendas as well as their national interests. Those are some of the things; there is a lot more. I think a lot of people here probably have wider experiences.

I think I would make one more comment at this stage in response to the question over here about business-NGO relations in developing countries. One thing that's become clearer is that there is a sign of good governance in place. In order to have, sort of, citizen interaction with business or government, you need a more stable framework. If

good governance doesn't exist, then that whole dynamic becomes very difficult. But in conditions where you do have stable governance, then the interaction, the basic interaction that I refer to as the triad relationship works a lot better. In some cases it won't work at all.

## **HIRONO**

First of all, concerning Japanese aid for developing countries, as Mr. Glanville pointed out, Japan must include solving the North-South problem as part of its efforts to solve environmental problems. Somewhat unlike the West, in Japan there is a strong sense that the best way to build a country is to start with the people, so maximum emphasis is placed on training and education. Japan sends JICA experts in various parts of the world and implements programs for foreign trainees. In addition, we are recently beginning to work on legislation and establishment of a system. I think these initiatives taken by Japan are of extreme importance.

One more thing I'd like to add is, concerning South-South cooperation --more advanced southern countries helping less advanced southern countries -- Japan provides financial and technical support. Concerning support provided to Thailand and Vietnam by Singapore, Japan provides quite a bit of back-up to Singapore.

## **MIYAKAWA**

While the information network is limited, we had a hand in planning various ODA and energy-saving model projects and provided technical support. Just as Mr. Hirono said, I think it is extremely important to collect as much information, find out what sort of technologies are needed, and introduce environmental technologies according to local conditions.

In some cases, technologies of an extremely high level can be offered, but may not be the optimal technology for the conditions that exist. In the case of international cooperation therefore, the facts must be thoroughly discussed among the countries involved, and then implement the technologies that are mutually determined to be needed. Because the equipment must ultimately be used by the recipient country, personnel training must also be taken into consideration when installing the equipment.

Concerning the relationship of people and businesses, just as you said, they were up against each other in the age of industrial pollution. What I personally envision is a relationship of mutual trust. The fact that sufficient information is often not provided to consumers along with eco-products is a problem, for example. When conducting environmental business, so-called "venous industry," it would be desirable to form a partnership whereby a relationship of trust is created by sharing information with each other.

## **HAN**

In China the Chinese government is investing a lot of effort in environmental education. Education is carried out on three levels. The first level consists of various government leaders who must have sufficient knowledge of the environment for suggesting plans and making decisions. It is the responsibility of the leaders to gather data on a daily basis. The second level consists of corporate management and entrepreneurs. The third level consists of elementary, middle and high school students. They need to get a lot of practice in their daily activities.

The government is also investing a lot of effort in personnel education. There are for example a total of 127 universities in China, each of which has faculty of environmental science. As many as 5,000 students study in this faculty each year. Environmental activities are also carried out in the various cities and communities. In the near future the majority of the Chinese people will be able to have an extremely keen awareness of the environment.

## **NAKAMURA**

We must include environmental education as part of scholastic education. We have however still not decided just how environmental education should be taught. In Parana State and the city of Curitiba, I hear teachers and students are involved in studying the environment, and I think it is wonderful. I also hear that environmental education is very difficult to be carried out and that a lot of teachers mistakenly teach only conservation of the natural environment. They don't necessarily deal with something special; elementary student for example can be taught to practice conservation in their daily living habits like activities relating to domestic waste.

Regarding global warming, many people feel that it is not something real to them. We are not yet at the stage where global warming means anything to them in terms of their day to day life, and won't be for quite some time. We have however had some success concerning garbage problem. For example by teaching citizens and children simple things such as the number of trees that can be saved by recycling trash, we can get them to separate recyclable trash from non-recyclable one. Rather than teaching them theory of ecology, I think environmental education should be more like teaching the people more simple and practical things such as how many trees or energy can be saved by their activities.

Unless you teach people in a way they can relate to, I don't think efforts to teach about global warming won't make progress no matter how long you continue. I came here today on the Shinkansen. Elevators and all equipment require motive force and power. People here have air conditioner and some may have five or six television sets at their home. They have cars. When you discuss global warming here, the people living in developing countries in the south would think this was somewhat strange.



## AMANO

Thank you very much. We have now heard questions from the floor and discussed them. This brings our panel discussion to an end.

Considering recent environmental problems and the trends of international organizations, NGOs, industry, national and local governments concerning sustainable development, I sense that there is a new wind beginning to blow we have never experienced before. I also sensed this keenly through "Hyogo Environmental Business Week."

Just as Mr. Glanville noted in his keynote speech today, I also felt strongly that amidst the market economy, for example, businesses are beginning to move in an entirely new direction. Concerning the previously discussed topic "Economy and the Environment," I believe people are gradually beginning to recognize the importance of sustainable activities including ones related to social problems.

Another thing is, as Mr. Glanville described, a collaborative relationship is beginning to form among groups that up to now have had a confrontational relationship or among groups that you have thought only a confrontational relationship would be natural. I think people have begun to recognize that unless business and government, business and non-government groups, national ministries, national government and non-government groups learn to work together instead of opposing one another, we will not be able to solve environmental problems in the future.

The IGES Kansai Research Center is extremely interested in this subject, and we reconfirmed that we would continue conducting this sort of research. Everybody here with us today is deeply interested in and has expert knowledge of environmental problems and the issues of sustainability. If we can get each person to participate by taking some concrete action toward realizing sustainable development, then this has been a very significant panel discussion.

I would like to thank all of our panelists for participating and everybody in the audience for being with us here today. This brings the conference to a close. Thank you very much.



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～パートナーシップの形成と経済社会の転換～ 報告書

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2003年3月発行  
(財)地球環境戦略研究機関(IGES)  
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兵庫県神戸市中央区脇浜海岸通 1-5-1  
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Published in March, 2003  
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