

Annual Report **FY 2000**



FOREWORD



Akio Morishima

**Chair of the Board of Directors, and
President of the Institute for Global Environmental Strategies**

Fiscal year 2000 was the final year in the First Phase of IGES strategic research. During the year, each project was expected to compile the results of research in the First Phase, as well as propose draft Strategic Research Plans for the Second Phase. Although the First Phase began in April 1998 with some details remaining to be sorted out, the research activities were in good form by the third year, owing to outstanding efforts by Project Leaders and researchers. This is evidenced by their Final Reports, which were completed for all projects before the end of the fiscal year. The research results of each project now await evaluation by the Research Advisory Committee, consisting of members nominated by the signatory organizations of IGES.

There are many examples of progress in the work over the year. IGES continued to organize a variety of workshops and seminars inside and outside of Japan, as in the previous year. Members of the Kitakyushu Office, established in October 1999, began preparing to implement the Kitakyushu Initiative for Clean Development, for which the Office is responsible. The Initiative was adopted at the Ministerial Conference on Environment and Development in Asia and the Pacific (ESCAP/MCED 2000), held in Kitakyushu in September 2000. Activities continued smoothly at the Technical Support Unit of the National Greenhouse Gas Inventories Programme of the Intergovernmental Panel on Climate Change (TSU/IPCC), which was set up at IGES in September 1999. For example, the Unit published the IPCC Report on Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories, in accordance with instructions of the IPCC. Another example is in the IGES Capacity Building Program, where development of the eLearning System approached completion.

To be honest, as a new organization it seemed that at times IGES was deciding its course on an ad hoc basis. Despite this, the Institute made tremendous progress in all activities over the past three years. Through the lessons learned by trial and error, I feel that we were successful in building solid foundations for project research in the Second Phase and other phases that will follow. IGES was also successful in publicizing its name beyond initial expectations.

IGES was able to achieve successful results in a short

period of time owing to the meticulous and generous guidance from its directors and trustees. Nearly half of them belong to overseas research institutions, and the Japanese members are persons with profound knowledge and rich experience in policy research. More so than in many organizations in Japan, the two-day board meetings at IGES are filled with lively debate. Although it is not uncommon for the administrative section to be at a loss as to how to reply to sharp questioning, these meetings produce much useful guidance. Furthermore, many directors and trustees offer suggestions not only at these meetings but also through e-mail and other means. I offer my profound thanks to all directors and trustees for their efforts.

I must express gratitude to Japan's Ministry of the Environment and the Kanagawa Prefectural Government for their financial support. Both have supported IGES in carrying out research activities at an international level, even in times of financial difficulty. Furthermore, the Kanagawa Prefectural Government consented to build the research facility that IGES sought since its inception, and construction began at the end of 2000. Completion is due in April 2002. In addition, now that the First Phase of project research has ended, we cannot forget those from Japan and elsewhere who provided cooperation in our research, and the endeavors of various members of industry and non-governmental organizations who participated in workshops and research meetings.

In preparation for the beginning of the Second Phase of project research in April 2001, we established a Program Planning Group (PPG) from among the directors and trustees, and formulated a Strategic Research Plan based upon important experiences from the First Phase. If the First Phase was the period of preparing the foundations, then the Second Phase represents the first stage of actual strategic research upon these foundations. More than ever there will be expectations from within and without for IGES to demonstrate its true potential, and we resolve to make our utmost efforts to do so.

A handwritten signature in black ink, appearing to read 'Akio Morishima', written in a cursive style.

IGES Annual Report FY2000

Chapter 1 Environment and Development in the Asia-Pacific Region: Taking Stock and the Way Ahead _____ 7

Chapter 2 IGES Activities in Fiscal Year 2000

I. Summary _____	13
II. Research Results of Each Strategic Research Project	
A. Climate Change Project (CC) _____	17
B. Urban Environmental Management Project (UE) _____	21
C. Forest Conservation Project (FC) _____	26
D. Environmental Education Project (EE) _____	30
E. Environmental Governance Project (EG) _____	34
F. New Development Patterns Project (NDP) _____	37
III. Activities of IPCC/TSU _____	40
IV. Capacity Building Program _____	44
V. Contribution to International Conferences	
A. Contribution to ECO ASIA 2000 and ESCAP/MCED 2000 _____	47
B. Contribution to the Establishment of International and Domestic Measures _____	51
C. The 9th Northeast Asian Conference on Environmental Cooperation _____	53
VI. Workshop and Symposium	
A. International Workshop on the Socio-economic Assessment for the CDM and Other Kyoto Mechanisms _____	55
B. The MCED (ESCAP)/ECO ASIA 2000 Pre-Symposiums _____	56
C. Policy Dialogue Workshops/The Fourth IGES International Workshop on Forest Conservation Strategies in Asia-Pacific _____	58
D. Workshop on Evaluation of Environmental Education Activities _____	60
E. Open Symposium: "Asian Environment and Development in the 21st Century" _____	61
F. 2nd Policy Dialogue between Japan and Germany for Facilitating Coordinated Measures to Address Global Warming: International Climate Policy and the IT Sector _____	62
G. Study Group on the Information Technology (IT) Revolution and the Environment _____	64

VII. Other Activities

1. Dissemination of Information	66
2. Affiliate Membership / Seminars for Affiliate Members	67

Chapter 3 Planning a Smooth Start for the Second Phase of Strategic Research

1. Establishment of Plans for the Second Phase of Strategic Research	71
2. New Activities toward an International Organization	77
3. Construction of the New IGES Building	79
4. IGES Kansai Research Center	80

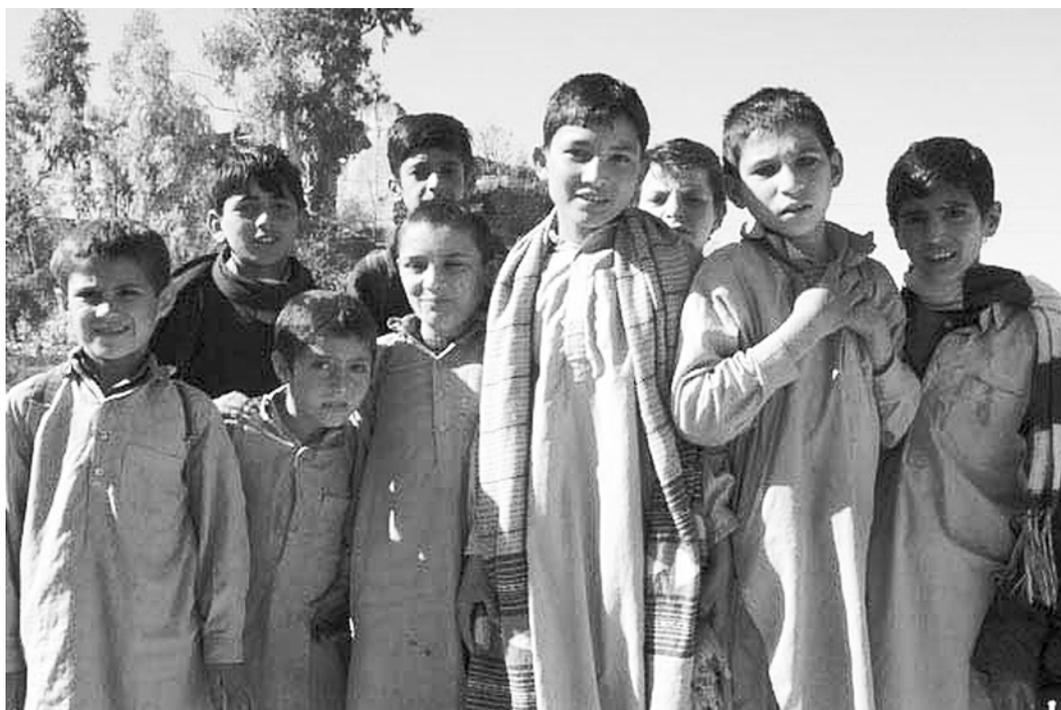
APPENDIX

● List of Achievements (April 1, 2000 — March 31, 2001)	85
● Organization	
i. List of Members of the Boards of FY2000	105
ii. List of Employees of FY2000	112
iii. List of Signatory Organizations and Institutions	115
● Financial Statements for FY2000	116
● Articles of Association for the Institute for Global Environmental Strategies	122
● IGES Newsletters	130

The "IGES Annual Report FY2000" documents activities that took place at IGES between 1 April 2000 and 31 March 2001.

☆ All titles are the original ones and may have changed.

Chapter 1 Environment and Development in the Asia-Pacific region: Taking Stock and the Way Ahead



Environment and Development in the Asia-Pacific Region: Taking Stock and the Way Ahead

I. Taking Stock

1. From Stockholm to Rio and After

The twentieth century has been particularly remarkable in the scale and extent of the damage caused to the environment for the sake of economic development. Following the path of industrialized countries, a number of developing nations, many in East and Southeast Asia, have embarked on the course of industrialization, taking a heavy toll on the environment. As the twentieth century came to an end, and now, as we welcome the twenty-first century, many of the socio-economic and environmental conditions sustaining life in Asia and the Pacific, and the world in general, remain unchanged.

The challenge of development under sound environmental conditions is more appealing, despite a great commitment of countries around the world to preserve and improve the human environment, as manifested in the two major environmental meetings of the last century - the United Nations Conference on the Human Environment (Stockholm, 1972) and, twenty years later, the United Nations Conference on Environment and Development, or UNCED (Rio de Janeiro, 1992).

UNCED (also known as the Earth Summit and the Rio Summit) brought the themes of environment and sustainable development to the highest level of political attention of world leaders, non-governmental organizations and civil society, culminating in the adoption of Agenda 21 and other binding and non-binding agreements. More than 178 governments adopted Agenda 21, a comprehensive blueprint for action to achieve sustainable development. In June 1997, a Special Session of the United Nations General Assembly reviewed the implementation of Agenda 21, and identified priorities for future action.

2. The Asia-Pacific Region on the Move

Parallel to developments at the international level, the Asia-Pacific region has been active, particularly after the 1992 Rio Summit. Since the adoption of Agenda 21, significant progress has been made, which includes the updating of environmental laws and the introduction of new

ones, the establishment of new institutions for environmental governance, and the formulation of national environmental strategies, including Agenda 21. Most countries in the region now have agencies entrusted with the tasks of environmental management (ESCAP, 2000).

Environmental concerns have been incorporated into overall development policies and projects. The National Economic Development Authority in the Philippines, the Planning Commission in India, the National Environmental Board in Thailand, and the National Planning Commission in Nepal are all high-level government bodies with cross-sectoral decision-making powers that generate an integrated approach to environmental protection and economic policy.

Important initiatives were taken collectively in the different parts of the region, leading to new arrangements and institutions for environmental and economic cooperation. Today, the sub-regions of Asia abound with cooperative mechanisms to support national action for environmental protection.

In Northeast Asia, the North-East Asian Sub-Regional Programme of Environmental Cooperation (NEASPEC), initiated in 1993, has planned and implemented various projects focusing on the three priority areas of energy and air pollution, ecosystem management, and capacity-building.

In Southeast Asia, following the launch of the 1977 ASEAN Sub-Regional Environment Programme (ASEP), developed in collaboration with UNEP, the ASEAN Strategic Plan of Action



United Nations Conference on Environment and Development (Earth Summit)

on the Environment was agreed upon in 1993, consisting of ten strategic thrusts and twenty-seven supporting actions. Cooperative action has also been undertaken with regard to transboundary pollution, environmental education and training.

In South Asia, the South Asia Cooperative Environment Programme (SACEP) was adopted in 1982. Specific environmental programmes were adopted, including the 1982 Regional Seas Program, the 1995 South Asian Seas Action Plan and the 1998 Male Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia.

At the regional level, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) has been a high-level forum for policies on environment and development. The Ministerial Conferences on Environment and Development in Asia and the Pacific (MCED), held most recently in 1995 and 2000, were occasions for identifying priority areas related to economic development, population growth, and patterns of production and consumption for sustainable development. ESCAP/MCED 2000 and the Regional Action Programme for Environmentally Sound and Sustainable Development (2001-2005) identified a set of instruments, including economic measures, regulatory controls, technological interventions, institutional development, capacity-building and stakeholder participation in facing the major environmental problems of the region.

In addition, the ESCAP/MCED 2000 adopted the Kitakyushu Initiative for a Clean Environment, which aims to strengthen actions at the local level to improve the environment in urban areas in Asia and the Pacific, and promote cooperation among cities, drawing from the rich experience of the city of Kitakyushu in the area of urban environmental management. The Kitakyushu



Office and the Urban Environmental Management Project of IGES were assigned key roles to help carry out the Kitakyushu Initiative.

The Long-Term Perspective Project of Environment Congress for Asia and the Pacific (ECO ASIA) was another milestone in the region's initiatives towards sustainable development. Building on the four key concepts of Eco-Consciousness, Eco-Partnership, Eco-Technology and Investment, and Eco-Policy Linkage developed during the first phase (1993-1997), the second phase of the project assessed how these concepts were relevant in practice as tools for addressing environmental problems in the region, with the aim of identifying remaining impediments and putting forward new strategies for improvement.

IGES took the opportunity of these conferences to put forward policy recommendations based on strategic research outcomes and submitted a policy recommendation document "Policy Implications in Addressing Critical Environment and Sustainable Development Issues of the Region" and a background information paper entitled "Specific Issues on Sustainable Development in Asia and the Pacific" to the Preparatory Meeting of Senior Officials of ESCAP/MCED (31 August - 2 September 2000). Mr. Kazuo Matsushita, (Acting Vice-president of IGES) made a keynote speech, introducing the points of IGES policy recommendations to the ministerial level participants of ECO ASIA (3 September 2000).



II. The Way Ahead

1. Building on the ESCAP/MCED 2000

In September 2000, MCED adopted the Regional Message for the Ten Year Review of the Implementation of the Outcome of the United Nations Conference on Environment and

Development. It was noted in the Regional Message that although crucial changes have been made in several aspects of sustainable development in all countries in the region, indications point to the fact that the momentum of negative environmental change continues to outpace the achievements. The region still attracts global concern for its lands affected by soil degradation, high levels of pressure on water resources, and air and water pollution, largely above world averages. Poverty and population growth continue to be major challenges.

Against this background, issues of priority for the Asia-Pacific region were identified, as well as actions that would enable countries in the region to decouple economic growth and environmental degradation. The priority issues include: environmental quality and human health; biodiversity; the marine and coastal environment; fresh water resources; desertification and land degradation; environment and economics; climate change; and sustainable energy development. In addition to these, poverty and illiteracy in developing countries of the region were identified as being factors that continue to hamper efforts towards sustainable development.

In facing these challenges, using market instruments, moving towards more sustainable patterns of production and consumption, and developing innovative technologies were recommended as areas of action for better integration of economic growth and environmental quality. The World Summit for Sustainable Development, as well as its preparatory process, will be major occasions for the Asia-Pacific countries to move these issues forward onto the global agenda.



2. Towards the World Summit on Sustainable Development

The special session of the United Nations General Assembly on the implementation of Agenda 21, officially referred to as the World Summit on Sustainable Development (WSSD), also known as Rio+10, will be held in Johannesburg, South Africa from 2 to 11 September 2002. The WSSD will gather government, representatives of civil society, United Nations agencies, and other major actors from around the world to assess global change since the historic 1992 Rio Summit, identify remaining obstacles and design future strategies towards sustainable development.

The WSSD involves a preparatory process, which includes a series of international but also regional meetings under the umbrella of the United Nations Regional Commissions for Africa, Asia and the Pacific, West Asia, Europe and the Latin America regions. The regional preparatory meetings, which are to take place between August and November 2001, will formulate regional platforms that will provide a regional assessment of the implementation of Agenda 21. The fourth, and final, preparatory session will be held at the ministerial level in Indonesia from 27 May to 7 June 2002.

These regional meetings will be opportunities for countries in Asia and the Pacific region to formulate concrete measures for promoting sustainable development and provide meaningful input to the WSSD. In preparing for the summit, the following elements should be given due consideration:

- The importance of reflecting the needs of developing countries;
- The need to use strategic approaches towards sustainable development;
- Interdisciplinary linkages and balanced consideration of concerns among various environmental, social and economic factors; and
- Strengthening partnerships among politicians, governmental and non-governmental sectors.

From the perspective of the WSSD, the Japanese Minister for the Environment set forth the proposal for the establishment of an Eminent Persons Forum (EPF) at the occasion of the ninth convening of ECO ASIA, held in the city of Kitakyushu, Japan on 3 September 2000. The establishment of the EPF was then announced at

the ESCAP Ministerial Meeting in September 2000. It is expected that the EPF will be officially launched at ECO ASIA 2001 in Japan on 13 and 14 October 2001. The Institute for Global Environmental Strategies (IGES), through the cooperative efforts of governments, research institutes, and international organizations, will play a central role in overseeing the secretariat operations of the forum and providing intellectual input. Plans are being made to present the preliminary results of the EPF at the World Summit on Sustainable Development in 2002.

References

State of the Environment in Asia and the Pacific 2000, United Nations Economic Commission for Asia and the Pacific (ESCAP), 2000.

Vision for the 21st Century: Ministerial Declaration on Environment and Development in Asia and the Pacific, ESCAP Ministerial Conference on Environment and Development in Asia and the Pacific, 2000.

Regional Action Programme for Environmentally Sound and Sustainable Development 2001-2005, ESCAP Ministerial Conference on Environment and Development in Asia and the Pacific, 2000.

Regional Message for the Ten-Year Review of UNCED, ESCAP Ministerial Conference on Environment and Development in Asia and the Pacific, 2000.

Draft Final Report of ECO ASIA Long-term Perspective Project Second Phase.

"Policy Implications in Addressing Critical Environment and Sustainable Development Issues of the Region," submitted by IGES to the Preparatory Meeting of Senior Officials of ESCAP/MCED (31 August - 2 September 2000).

"Specific Issues on Sustainable Development in Asia and the Pacific," submitted by IGES to the Preparatory Meeting of Senior Officials of ESCAP/MCED (31 August - 2 September 2000).

Environment in the 21st Century and New Development Patterns, Kazuo Matsushita (ed.), Kluwer Academic Publishers, 2000.

(Kazuo Matsushita, Gueye Kamal)

Chapter 2 IGES Activities in Fiscal Year 2000



Chapter 2 IGES Activities in Fiscal Year 2000

I. Summary

The 2000 fiscal year was the final year of the First Phase of strategic research (1998 to 2000). During the year, IGES continued their research activities, and worked to apply the results of research, develop training programs, and to disseminate and exchange information. Part of our work this year included reviewing the activities of the previous two years, compiling the results from the First Phase and formulating the strategic research plans for the Second Phase.

The year was also marked by an expansion of activities of the Technical Support Unit for the Intergovernmental Panel on Climate Change National Greenhouse Gas Inventories (IPCC/TSU). In addition, the Internet Global Environmental Fund (tentative name) was launched as part of a strategy to further internationalize IGES. Overall, our activities helped to prepare for the beginning of the Second Phase Strategic Research Plans, including the start of construction of a new IGES building and preparations for the opening of the Kansai Research Center (see Chapter 3 for details).

1. Research Activities of IGES Projects

The researches of IGES's six strategic research projects, first launched in the 1998 fiscal year, continued their regular activities while compiling final reports, taking into account the results of research conducted during their first two years.

The IPCC/TSU compiled the IPCC Report entitled "Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories," and is currently working on new projects, such as developing guidance on good practices relating to land-use change.

Preparations for the formal launch of the Internet Global Environmental Fund (tentative name) in April 2001 began with research and the set-up of a special account two months earlier.

The Climate Change (CC) Project continued its research on concrete measures to implement the Kyoto Mechanisms. The results of these activities were presented at several international conferences and workshops, including the sixth session of the Conference of the Parties (COP-6) of the United Nations Framework Convention on Climate Change (UNFCCC). In addition, IGES

continued hosting a series entitled the "IGES Open Forum for Global Warming Abatement," launched in the previous fiscal year. The series was designed to provide an opportunity for the private sector, researchers, and the public to participate in open discussions on the issue of domestic policies, focusing on ensuring targets agreed to internationally in the Kyoto Protocol are met. The project compiled the results from the forum series into a publication entitled "Discussion: Japanese Domestic Climate Policies," and disseminated it to the world through presentations at events such as COP-6. In addition, the CC Project developed an energy-economy model to study the economic effects of the Clean Development Mechanism (CDM) on countries in Asia. The project also conducted research focusing on climate change in Asia, including a survey of cooperative efforts to mitigate climate change in Japan, Korea, China and Russia, a study of the financial mechanisms involved in the efforts of developing countries to cooperate internationally on promoting participation, and research to improve Greenhouse Gas Inventories in developing countries in the Asia-Pacific region. Through these activities, IGES compiled results from the First Phase aimed at promoting measures in the Asia-Pacific Region to combat global warming.

The Urban Environmental Management Project compiled a report from the results of case studies conducted with the cooperation of local research teams in eight cities in China, Korea, Indonesia



The Ministerial Conference on Environment and Development in Asia and the Pacific 2000

and Japan. It also produced reports on crosscutting issues shared by these cities, such as identifying sources to fund urban environmental infrastructure. These were delivered to people responsible for designing urban policies within the national and local governments of these countries. The project also organized a series of six symposiums ahead of the Ministerial Conference on Environment and Development in Asia and the Pacific (MCED) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), held in September 2000. The results from the symposiums contributed to the adoption of the "Kitakyushu Initiative for a Clean Environment" at the ESCAP/MCED 2000, targeting the improvement of environmental management in cities in the Asia-Pacific region.

The Forest Conservation Project conducted Policy Dialogue Workshops in Indonesia, Lao P.D.R., and the Russian Far East from June to September 2000. The workshops, attended by government officials in charge of policy-making, researchers, and representatives from NGOs, focused discussions on drafting elements of a forest conservation strategies, taking into consideration the specific features of the region. Based on the results of these workshops, the Fourth IGES International Workshop on Forest Conservation Strategies in the Asia-Pacific Region was held in January 2000. Various strategies for forest conservation, including policy proposals for each country, were compiled and presented to concerned policy-makers and organizations in each country.

The Environmental Education (EE) Project submitted its "Regional Strategy for Environmental Education for the Asia-Pacific Region" to organizations involved with environmental education in the region. The strategy was based on status reports on environmental education in the Asia-Pacific region that the project had collected and analyzed, and also on discussions at the Regional Workshop on Environmental Education, held in Bangkok in December 1999. In December 2000, the EE Project organized the Workshop on Evaluation Activities of Environmental Education, which included themes such as "evaluating systems of learning" in terms of environmental education.

The Environmental Governance Project took the results from the country studies that were conducted in nine countries (including China, India, Thailand, and Japan), together with results

from two symposiums titled "International Symposium on Environmental Governance in Asia" and compiled them into a final report, which was then presented to research organizations in each country.

In addition, results from comparative studies of various regional cooperative activities, such as the Northeast Asian Sub-Regional Programme of Environmental Cooperation (NEASPEC), were compiled. These were submitted as information documents at the Northeast Asian Conference on Environmental Cooperation (NEAC) in July 2000, the Ninth Environment Congress for Asia and the Pacific (ECO ASIA 2000), and ESCAP/MCED, both held in September 2000. Moreover, the report, "Business and Environmental Governance," was published in October 2000.

The New Development Patterns (NDP) Project delivered its research outcomes and the results of other IGES projects at various international conferences, including ECO ASIA 2000 and the ESCAP/MCED, in order to widely disseminate the knowledge and policy implications of new development patterns among policy-makers and other stakeholders in the region. IGES was specifically responsible for compiling a final report for the Long-term Perspective Project of ECO ASIA, based on the results of an international workshop on the project held in February 2000.

In addition, NDP Project contributed to the draft of the "Asian Environmental Outlook 2001," produced by the Asian Development Bank (ADB), through activities such as co-hosting an open symposium with the ADB.

The results of these strategic research projects are being compiled as the "Report of the First Phase Strategic Research," and will be evaluated by the Research Advisory Committee.

2. Activities of IPCC/TSU

During the 1999 fiscal year, the IPCC/TSU compiled the IPCC Report entitled "Good Guidance and Uncertainty Management in National Greenhouse Gas Inventories," which complements the Revised 1996 IPCC Inventory Guidelines. The report was accepted by the IPCC at its sixteenth session in May 2000. The UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA), at its twelfth Session in June 2000, recommended its use in the preparation of national greenhouse gas (GHG) inventories. The report was published and distributed around the world by IGES in September 2000.

The TSU is currently working on projects to establish a database of GHG emission factors and to develop Good Practice Guidance in Land Use, Land-Use Change, and the Forestry Sector.

3. Applying Results to Policy Decisions and Actions

For the purpose of applying the results of strategic research of the Second Phase to the environmental policies or business strategies of governments and international organizations, IGES presented keynote reports at ECO ASIA 2000 and ESCAP/MCED 2000, which were then adopted in the chair's summary and the report document.

At COP-6, IGES organized a seminar on the theme of "Cooperation and Competition for Implementation of the Kyoto Regime."

In addition, IGES hosted a series in Japan called "Open Forum for Global Warming Abatement," and the Forest Conservation Project and the Urban Environmental Management Project co-organized international workshops for the purpose of proposing policies outside Japan.

To report on the research results of the First Phase and gather input for future activities of IGES, an event titled "Presentation of the First Phase Research Project Achievements" was held in March 2001 in Yokohama, Japan for the policy-making sections of national and local governments, researchers, representatives of the private sector, environmental NGOs, and the public.



Presentation of the First Phase Research Project Achievements

4. Capacity Building Program for Global Environmental Specialists

The development of the "eLearning" System, an original IGES online training system which effectively uses the Internet for capacity building in developing countries, was completed and launched on the IGES website in November 2000. IGES hopes to promote the development of

training courses in the future in cooperation with other strategic IGES projects.

IGES co-hosted a workshop for training future leaders in February 2001, as well as supported and took part in workshops organized by other organizations including the United Nations Institute for Training and Research (UNITAR). Furthermore, based on an agreement with the Leadership for Environment and Development (LEAD) program, IGES accepted interns from Nigeria and Hungary.

Meanwhile, in order to promote internationalization of IGES, during the 2000 fiscal year, IGES accepted visiting researchers from China, Russia, and the Philippines to promote an exchange of researchers with research institutes around the world, especially in Asia.



eLearning

5. Dissemination of IGES Research Results and Information on Global Environmental Issues

The inaugural edition of the "International Review for Environmental Strategies (IRES)" was published in August 2000. The aim of the journal is to disseminate research results and information for the purpose of formulating strategies to solve environmental problems. "E-alerts", a broadcast email publication, was launched in December 2000 to disseminate news of IGES activities and other information.

IGES also continued to disseminate updates on its activities and information on global



IGES Inaugural Issue

environmental issues through its website, newsletters, and other means, including the publication of "Top News on the Environment in Asia 2000", with collaboration from researchers in Asia.

IGES published the second volume of the IGES Global Environmental Strategic Research Book Series entitled "Business and Environmental Governance", and in English, the second volume of the IGES Book Series titled "Environment in the 21st Century and New Development Patterns".

6. Other Major Activities

1) Affiliate Members

Seminars were made open to the public, in order to share the results of IGES research activities and the latest information on environmental problems to the affiliate members of IGES, and to encourage an increase in affiliate membership. There were ninety-nine affiliate members on 31 March 2001: sixteen corporations, two NGOs and eighty-one individual members.



Seminar for IGES affiliate members

2) Environmental Management System

The IGES Environmental Management System, first established in the 1998 fiscal year and started on a trial basis in the fiscal year 1999, was launched on a full-scale basis in 2000. Although IGES managed to decrease the amount of electricity consumed and the number of photocopies made in fiscal year 2000 from the previous year, more action needs to be taken to reach the target of reducing material and energy consumption by five percent from 1999 by fiscal year 2002.

3) The Internet Global Environmental Fund

The researches of IGES's six strategic research projects, first launched in the 1998 fiscal year, continued their regular activities while compiling final reports, taking into account the results of research conducted during their first two years.

IGES carried out preparatory work for the Internet Global Environmental Fund since February 2001. It is planned that this system will be started on a trial basis during fiscal year 2002.

(Shinichi Arai)

II. Research Results of Each Strategic Research Project

CC

A. Climate Change Project (CC)

1. Climate Change Project - First Phase

The main targets of the IGES Climate Change Project during the First Phase of strategic research are listed below.

- 1) As progress is made on achieving the objectives of the United Nations Framework Convention on Climate Change (UNFCCC), an action plan to establish a cooperative organizational framework should be generated in order to alleviate global warming trends throughout the Asia-Pacific region.
 - i) Actively participate in meetings relevant to the UNFCCC, including meetings of bodies such as the Intergovernmental Panel on Climate Change (IPCC), in order to study the direction of international policies, summarize the main issues and present new ideas.
 - ii) Construct an energy model of northeast Asia in order to analyze the effectiveness of international cooperation structures and their influence on individual countries in the region.
 - iii) Propose an effective means of funding, based on actual case studies, for mutual assistance within the framework of international aid organizations, while taking into consideration the capital investments of developing countries.
- 2) Establish an organization in Asia (as determined by IGES in 1999) to assist the IPCC/Inventory/Technical Support Unit (TSU) from the scientific viewpoint.
 - i) Establish a network of researchers throughout Asia and concentrate on inventory estimates to serve as the basis for individualized reports from each country to the UNFCCC.
 - ii) Compare and analyze Asian countries through the collection of research and inventories in each country.
 - iii) Identify unreliable information from

the data provided by each country while ensuring the maximum benefits from research results in the future.

2. Research Results - Fiscal Year 2000

In FY2000, the CC Project continued to work on methods to implement the Kyoto Mechanisms utilizing the research results presented at international conferences, such as COP-6. The Project also developed an energy-economy model and analyzed the economic effects of the Clean Development Mechanism (CDM) in Asian countries. As well, research was conducted on mitigating climate change in four countries (Japan, China, Korea, and Russia), on funding mechanisms to enhance the participation of developing countries, and on a greenhouse gas (GHG) inventories in the Asian region.

- 1) Preparation and dissemination of the Kyoto Protocol mechanism research for COP-6

The CC Project continued to research non-compliance with the Kyoto Protocol and associated issues, baselines connected to emissions trading, the uniformity of the overall design of mechanisms, joint operations, and the CDM, which are all considered to be common issues. The research results were presented at scheduled UNFCCC workshops and various other occasions.

- 2) Response to progress after COP-6

The team dealt with issues remaining after



Post COP-6 Seminar



International Workshop on CDM

COP-6 and included them along with the issues from the UNFCCC. Specifically, the CC team led discussions on unresolved issues, both domestically and internationally.

3) Research into the cooperative mechanisms in Asia

With the CDM as the central focus, the CC Project examined the most effective forms of technological and capital transfer methods, and conducted quantitative analyses using a model based on the Kyoto Mechanisms, including the CDM, to estimate the effects on Asian economies and their energy policies. Under the current Kyoto regime, recognizing that Japan is the only investing country in the Asian region, the CC Project focused on issues related to CDM in this region.

4) Assistance to establish countermeasure plans in Asian countries to address climate change

In close relation to the research

mentioned above in (3), for efficiency, the team assisted researchers with identifying opportunities to incorporate climate change policies into the energy and economic development policies in Asian countries. For this purpose, the Project strengthened the relationships with collaborative research institutes in the region and conducted joint research.

5) Organizing public meetings in advance of implementing a system of climate change countermeasure in Japan

There have been only limited public meetings regarding climate change with the participation of different stakeholders. Therefore, in advance of COP-6, as an experimental policy-making process with public participation, the Project organized a series of public meetings called the "IGES Open Forum for Global Warming Mitigation" in order to publicly discuss a system of climate change countermeasures based on the Kyoto Protocol, for subsequent referral to the government.

6) Development of an Asian network for scientific evaluation dealing with GHG inventories

A network has been established at IGES to identify problems related to the current GHG inventory system in order to help increase accuracy. To accomplish this the CC Project established a network of researchers in the Asian region in cooperation with IPCC/Inventory/TSU.

3. Summary of the First Phase Research Activities

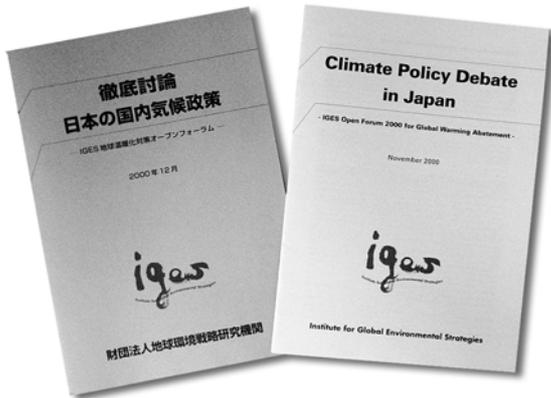
The CC Project launched and proceeded with its research by making proposals to contribute



IGES / GISPRI Seminar on IPCC Special Report and UNFCCC SBSTA Meeting



IGES Seminar at COP-4



“Climate Policy Debate in Japan”

to the design of the Kyoto Mechanisms and regional cooperation mechanisms in Asia, as well as the formation of domestic policy measures in each country, following the process of negotiations on the climate change framework after the Kyoto Protocol. The Project also participated in IPCC activities to consolidate scientific findings and also constructed the researchers’ network for greenhouse gas inventories in the Asian region.

1) International Framework

- i) During the First Phase, the following issues were actively discussed in the field of international climate policies: proposals concerning the concrete design of the Mechanisms, a search for actual projects for joint implementation, evaluating and reducing the uncertainties related to the CDM in Non-Annex I countries, and research on the possibilities of Annex I countries to achieve their targets based on the above-mentioned issues.
- ii) The GHG emissions from developing (Non-Annex I) countries are expected to exceed the amount emitted by developed (Annex I) countries in the next ten years. The reduction of emissions in developing countries is a pressing need, and to accomplish the reductions it is hoped that developing countries will incorporate policy measures to mitigate global warming at the earliest stage in their long-term economic development plans.
- iii) The project conducted thorough and detailed analyses of international negotiations after COP-3 and on the Kyoto Mechanisms (emissions trading, joint implementation, and the Clean

Development Mechanism). The results were presented at international conferences such as the COP.

2) Proposals for Domestic Measures

- i) After COP-3, each country implemented their domestic policy measures full-scale in order to reach the emissions reduction targets. In particular, the European nations set up and executed GHG emissions reduction policy measures, which contained regulations, carbon taxes, and voluntary action plans from the industrial sector.
- ii) In Japan, sectoral reduction plans were prepared during examination in 1997 of the Kyoto Protocol. However, the amount of emissions has still been increasing up to now, indicating a need for additional policy measures. To control emissions at the source, spread thinly from sector to sector, we need to formulate policies with national consensus. Thus, there is a need to create a forum that provides an opportunity for such policy-making with public participation. By holding the IGES Open Forum for Global Warming Mitigation, the Project contributed to enhancing discussions in Japan on the climate change issue.

3) Contributions to the IPCC

- i) The Project will provide more accurate information for policy-making for the UNFCCC in the future. The amounts of GHG emissions of countries submitted to the UNFCCC secretariat are calculated using the guidelines prepared by the Inventory Task Force of the IPCC. The Technical Support Unit (TSU) of the Inventory Task Force has been located



The First IGES Open Forum for Global Warming Mitigation

at IGES since 1998. The TSU is accumulating scientific information from many countries to estimate the amounts of emissions from various sources more comprehensively. The units of emissions amounts differ greatly, depending on regional conditions, therefore it is indispensable to consolidate the results of measurements taken by the network of scientists from many countries and many fields. The GEF assists with this kind of effort at the regional level with assistance from the U.S., Japan, the EU and international organizations. The CC Project has made significant contributions to the IPCC, with some of its project members participating as lead authors. Prof. Nishioka served as project leader on the "Climate Change Impact and Adaptation" chapter (Working Group 2), Dr. Naoki Matsuo on "Emission Mitigation Measures" (Working Group 3), and Dr. Tae Yong Jung on "Special Report on Emissions Scenarios."

4) Evaluation of the First Phase and the Research Plans for the Second Phase

The plans for the Climate Change Project (First Phase) were finalized at the International Workshop on Global Environmental Strategy held in 1997 and summarized as follows:

i) Forecast the agenda of negotiations on global warming

The Project researched solutions that facilitated negotiations under the UNFCCC and other related negotiations, in particular, by sorting out controversial points emerging from the issue of participation by developing countries in the Asian region.

ii) Analyze the implications of global warming issues from the viewpoint of regional long-term development and environment

The Project conducted analyses of regional long-term economic and energy implications from a macro point of view on the effects of global warming, in order to forecast the future state of the environment.

iii) Make concrete proposals for an international cooperative framework

The Project carefully examined a framework of incentives for international cooperation, such as joint implementation and the emissions trading market. Concrete suggestions for a pilot study, which would contribute to actual implementation of methods, were made at various occasions.

iv) Examine effective support measures from international and regional viewpoints

The project carefully examined studies and research on multilateral and bilateral assistance in the international framework, facilitating effective assistance within a region.

v) Examine effective ways to include global warming mitigation measures and international assistance in the economic development plans of each country

The Project supported other countries to prepare national policies to mitigate global warming, and supported the formulation of policies and plans especially important to the Asian region.

The research activities mentioned above were basically carried out in accordance with the original plan. The CC Project has made considerable achievements in terms of covering research topics, although it is behind schedule on introducing global warming mitigation measures in Asian countries. The Project will continue to work on these research targets in the Second Phase.

(Shuzo Nishioka, Tae Yong Jung)

1. Phase 1 Objectives and Targets

1) Objectives

The final objective of the UE Project is to present innovative ideas and models to guide urban environmental management policies in the midst of economic development in Asia in the new century. In Phase 1 of the project (April 1998 - March 2001), researchers observed environmental management practices in different countries, and drew lessons from the successes and failures. This work was based on a comparative assessment and evaluation of past experiences and the present state of urbanization and environmental problems in various Asian cities. Researchers then tried to demonstrate concrete examples of policy tools, institutional arrangements, technological options, urban planning, infrastructure provisions, and financial mechanisms, etc., in order to improve urban environmental management.

Another objective of the project was to conduct a critical review of the Japanese experiences in urban environmental management. The technical, legal and social measures adopted in Japanese cities for environmental management may provide useful lessons for other Asian cities that are undergoing rapid industrialization and suffering from industrial pollution. Project researchers analyzed the effectiveness and limitations of the Japanese approach, and discussed the applicability and transferability of the models to other Asian cities.

2) Research Items

The project identified four study components:

- i) A comparative study of past experiences, the current situation, mechanisms of



Rural Enterprises in lower Yangzi area

urbanization, and environmental problems in Asian cities

- ii) Japanese cities undergoing industrial transformation, including past experiences and new models for urban development and environmental protection
- iii) Strategies for improving urban infrastructure, including mass transportation, sewerage, waste management, water and electricity supply
- iv) Strategies for improving governance in urban environmental management

In implementing the project, it proved necessary to identify more specific sub-topics to undertake the actual work. Project researchers decided to synthesize the research findings according to the following themes:

- (a) The current situation, processes and mechanisms of urban environmental transformation
- (b) Comparative studies of urban environmental management practices in selected cities
- (c) The Japanese experience in environmental management and its implications for other Asian countries
- (d) Financing urban environmental infrastructure
- (e) Urban transportation, focusing on four mega-cities in East Asia (Tokyo, Seoul, Beijing and Shanghai)
- (f) Municipal solid waste management
- (g) A comparative study on urban environmental governance in East Asia

3) Methodology

Research consisted of two different types of studies. The first type was a vertical study of certain selected cities. The second was a horizontal analysis, or comparative study, of crosscutting issues and the overall situations in cities in different countries.

An international study team was formed to implement the project with the participation of IGES in-house researchers and researchers from universities and other institutions in Japan,



Field Studies in lower Yangzi area

Korea, China, Indonesia, and other countries. For the vertical studies, case studies were conducted for selected cities and case study teams were organized with the participation of researchers who were familiar with the local issues. Ten cities were selected for case studies, and relevant information and data were collected on their past experiences and present situations. Based on that information, each case study team developed a case study report in accordance with the DPSER model as a common framework for each city. In-house researchers with the IGES Urban Environment Project were mainly responsible for the horizontal studies by providing coordination of activities undertaken by the case study teams. All major results from these exercises have been analyzed and compiled in a comprehensive report.

2. Fiscal Year 2000 Results

Activities during fiscal year 2000 focused on compiling all results from research completed

during the first phase, and then disseminating these results. The following five topics outline the main tasks completed:

1) Completion of Case Study Reports

Case studies were finalized by local experts for ten cities in a number of countries: Shenzhen, Dalian, Jiangyin, Xi'an, Ulsan, Ansan, Kitakyushu, Ube, Tangerang, and Mataran. Voluminous reports were created using the DPSER (Driving Force-Pressure-State-Effect and Response) analysis framework, and the reports from the previous two years were reviewed and underwent several revisions under the supervision of local experts from each city. With the introduction of the common analysis framework, it was possible to conduct a systematic comparison of the various environmental problems in different cities in a more coherent manner, highlighting the importance of these reports. In particular, during the final fiscal year, efforts were concentrated on creating a concise report for each city based on the essence of the case study reports, which were then consolidated into the IGES UE Comprehensive Policy Report.

2) Completion of Issue Reports

Research was conducted to pinpoint significant crosscutting issues commonly observed in several cities. Efforts were made to procure extensive primary information on-site, including field studies, regarding major urban environmental problems in Asia in order to grasp an accurate understanding of the current state of specific issues, to identify the causes of problems and to draw lessons from the practices of existing countermeasures. Based on those research outcomes, a series of issue-based research papers



Field Survey Meeting in China

were produced by IGES researchers. Faced with the extent of regional variations and problems of urban environmental issues in the Asian region, local experts were commissioned to contribute several academic papers to complement this project with regard to regions and problems that could not be adequately analyzed and studied by IGES researchers alone.

The case study reports focus on specific cities and, in contrast with historical and comprehensive reviews, these issue reports target a number of cities and place importance on extracting the commonalities and differences on corresponding crosscutting issues. Combined with case study reports, these issue reports make up the core of the comprehensive policy report, leading to the possibility of completely describing the current state of urban environmental problems in Asia.

Issue-based papers created by in-house IGES researchers are as follows:

- (a) The current situation, processes and mechanisms of urban environmental transformation
- (b) Comparative studies of urban environmental management practices in selected cities
- (c) The Japanese experience in environmental management and its implications for other Asian countries
- (d) Financing for urban environmental infrastructure
- (e) Urban transportation focusing on four mega-cities in East Asia (Tokyo, Seoul, Beijing and Shanghai)
- (f) Municipal solid waste management
- (g) A comparative study on urban environmental governance in East Asia

Local experts contributed academic papers that covered the following issues:

- (a) Comprehensive urban environmental management and administration in China
- (b) Urban environmental governance in Korea
- (c) Financing urban infrastructure development in China
- (d) Financing environmental investments in Korea
- (e) Urban domestic garbage disposal and its management in China
- (f) Solid waste generation and treatment in China
- (g) Waste management systems and the resource-recycling society in Korea
- (h) Study of water resources, water environment and water ecosystems in the Taihu Lake Basin

3) Completion of the Kitakyushu Office Research Activity Report

The IGES office, established in October 1999 in the city of Kitakyushu, in collaboration with the IGES Urban Environmental Management Project in the main office in Shonan, carried out research activities that focused on the following issues:

- i) Review of Kitakyushu's experience in urban environmental management, analysis of its effectiveness and limitations, and the examination of the feasibility of the Kitakyushu model applied in other Asian cities
- ii) Collection of information related to pollution countermeasures in Kitakyushu (materials, data, etc.)
- iii) The conduct of on-site field studies of the state of urban environmental infrastructure across Asia compared to experiences in Kitakyushu

In the first phase (1999-2000), the IGES Kitakyushu Office conducted a study on the current state of urban environmental infrastructure in Asian cities with field surveys in Manila (Philippines) in 1999 and Bangkok (Thailand) in 2000. Together with these case studies and a comparison of the experiences in Kitakyushu, a final report was proposed detailing how urban environmental management, especially environmental infrastructure, can be improved and promoted in Asia.



The Opening Ceremony for the Kitakyushu Office



1st Pre-Symposium

4) Implementation of Pre-Symposiums for the ESCAP 4th Ministerial Conference on Environment and Development in Asia and the Pacific (MCED)

In preparation for the ESCAP 4th Ministerial Conference on Environment and Development in Asia and the Pacific (MCED) in Kitakyushu, the IGES Kitakyushu Office organized six pre-symposiums in 2000. The objective of this series of symposiums was to attract the participation of local residents, businesses, and environmental NGOs, and to provide a forum to discuss strategies for addressing environmental problems in the Asia-Pacific region, as well as to raise public awareness of environmental issues. The results from the symposium series were presented at the ESCAP Ministerial Conference. (For details, please see VI. Workshop and Symposium.)

5) Completion of Comprehensive Policy Report

All the research results and information accumulated during the first phase of the project were summarized and compiled in a comprehensive policy report entitled, "Urban Environmental Challenges in Asia: Current State and Management Strategies." This IGES-UE First Phase Completion Report consists of a project summary (Part I), issue-based research papers (Part II), and local case studies (Part III).

3. Conclusions of the First Phase

Although many environmental studies have focused on cities in developed countries, systematic studies on cities in Asia are fairly new. A number of pieces of fragmented information on Asian cities exist, however they have not been systematically collected and analyzed. Moreover, studies of Asian cities have not been undertaken fully by research institutions and researchers in Asia. In order to work regionally with a variety

of cities in urban research, it is essential to target a number of cities in many countries and secure the participation of international research teams comprised of field researchers that are well informed on local issues. Therefore, the originality of this project research is seen in the fact that it was undertaken upon the initiative of IGES with the broad participation of researchers from many institutions in Japan, Korea, China, Indonesia, and other countries. An important international research network was created, which is a valuable asset for IGES.

1) Research Methodology and Selection of Topics

With respect to research methodology and topics, the project is unique in several respects. First, it developed and adopted a common analytical framework in addition to collecting data from case studies in selected cities that consisted of both horizontal and vertical studies. Horizontal or comparative studies were conducted to identify the commonalities and specialties of cities under different conditions, using the data and information collected by the vertical case studies. Second, it identified topics among diverse urban environmental issues that were most relevant to the implementation of actual urban environmental policies. It focused on strategic issues including the method of financing to improve urban environmental infrastructure such as municipal sewage and solid waste treatment facilities, urban transport management in mega-cities, and the management of increasing volumes of municipal solid wastes. Moreover, it developed a theoretical basis for analyzing the environmental transformation of cities in response to economic, social and technological changes. A conceptual model was developed to describe the dynamics of causes and responses based on the DPSEIR framework.

The results from this project will be published in a comprehensive report and also in separate reports on specific topics. They will serve as an intellectual guide for a variety of entities involved in the policy-making process related to urban environmental issues.

2) Influences on Policy

An outstanding characteristic of cities in East Asia is that most of them face difficulties in taking effective measures in terms of financing and technology. Because it is especially important to integrate the findings of the project into international cooperation programs, these study

findings of the project were reported to the ECO ASIA meetings. Moreover, the IGES case study of Kitakyushu City was reported to ESCAP/MCED, held in Kitakyushu in September 2000.

Based on this IGES initiative, the ESCAP meeting endorsed the following actions that should be conducted at the local level:

- i) Strengthen local initiatives and enhance partnerships
- ii) Strengthen environmental management capabilities at the local level
- iii) Improve the environmental technology base
- iv) Promote public and private sector investment in the environment
- v) Promote environmental information and education
- vi) Strengthen international environmental cooperation based on local initiatives

The following measures were then proposed to promote action at the local level:

- i) Establish a local "Kitakyushu Initiative Network for a Clean Environment"
- ii) Secure support from the national government, including bilateral donor assistance
- iii) Strengthen linkages with the academic community
- iv) Collaborate with existing international initiatives

Indicators were proposed in order to achieve quantitative targets in enhanced, integrated urban planning strategies, such as an improvement in air and water quality, the hygienic management of wastes and a per capita reduction of waste generation, capacity building, awareness-raising and stakeholder participation.

3) Future Studies : Research Themes of the Second Phase

As mentioned above, research during Phase I was aimed at gaining an understanding of the current situation and achieved some positive results. In order to provide more relevant policy guidance to various audiences, however, it is essential not only to understand the actual reality in various cities, but also to identify and analyze the mechanisms of how problems arise and the measures most effective to counter them. To achieve this end, while utilizing the information and experiences accumulated through studies in the previous phase, Phase II research will place a high priority on the following three themes:

Theme 1: Study of the process dynamics of urban environmental evolution

Theme 2: Urban policy integration of energy-related environmental issues in selected Asian mega-cities

Theme 3: Support for the implementation of the Kitakyushu Initiative Network

(Hidefumi Imura, Shinji Kaneko,
Osamu Norimatsu)



IGES-UE / IHDP-IT Open Symposium

1. Objectives and Targets

Conserving forests is one of the key challenges for the world. The development of a strategy for sustainable forest management is urgently needed, however, the comprehensive study of forest conservation has just begun. The goal of the Forest Conservation Project is to prepare a strategy for the conservation and sustainable management of forests in Asia and the Pacific region, and to propose the necessary supporting legal measures and policies.

To that end, both the domestic and international aspects of forest issues need to be analyzed. In particular, existing conditions and obstacles preventing the resolution of forest conflicts should be examined at the level of local production, at the domestic and international trade levels, as well as by researching the underlying causes of deforestation and forest degradation.

1) The local production level

It has been widely recognized that effective forest management should be based on participation by local people. This research project aims to propose a management system for local forests as a local commons, based on local people, as well as a system for the management of forests as a national commons, based on supervision and participation by the general public in each country.

2) The trade level

This project aimed to analyze and examine actual cases of trade in timber and non-timber



Rural Scenery (South part of Lao P.D.R.)



Rural Scenery (Bogor, Indonesia)

products, and propose necessary control measures for ensuring that timber exports come only from sustainably managed forests. It also aimed to examine proposed timber certification systems, as well as restrictive measures for consumers, and other necessary measures.

3) Clarify the underlying causes of deforestation and forest degradation

The dependence of local societies on the timber trade in different countries was to be analyzed from a historical perspective with the goal of proposing alternative means of social development and civilization for the future.

4) Participatory management systems

On-site research was to be conducted on issues such as land ownership and traditional forest utilization, relevant legal systems and administrative institutions, the decision-making processes of local communities, the role of village meetings, and forestry systems in the Asia-Pacific region.

5) Desirable ways to utilize forest products

Field research was also to be carried out on desirable ways to utilize forest products, and the use of forests for recreation and tourism, paying special attention to equitably sharing the benefits derived from forests.

2. Research Results of the Year 2000

As the year 2000 was the final year of the Project's first phase, a draft of the forest conservation strategies for the Asia-Pacific region

was developed through the following procedures.

- 1) In April and May 2000, the Forest Conservation Project listed the key elements for country-based strategies, focusing on each country's differences and based on research results.
- 2) At the end of May 2000, a workshop was held in Japan to examine the key elements of the forest strategies.
- 3) From June to September 2000, workshops were held in conjunction with local researchers in target countries, as well as with government representatives and NGOs in Indonesia, Lao P.D.R. and the Russian Far East to examine strategies focusing on the differences in conditions in each country with a view to making amendments.
- 4) The Forest Conservation Project and other researchers examined the preparation work for the final version of the strategy for sustainable forest management in the Asia-Pacific region.
- 5) The final international workshop was held in January 2001 to discuss the proposed IGES Policy Recommendations on forest conservation with representatives from international organizations, such as ITTO, CIFOR, relevant government sections and NGOs. The IGES Policy Recommendations were publicized through these processes.
- 6) The following points were considered with a view to develop a guideline based on the actual state and needs of local communities.

First, in the target countries (Indonesia, Thailand, the Philippines, Vietnam, and Lao P.D.R.), the "external constraints" on local participation in forest management were



Policy Dialogue Workshop (Vientiane, Lao P.D.R.)



Policy Dialogue Workshop (Vientiane, Lao P.D.R.)

identified by clarifying the gaps and contradictions between national land and forest policies and "customary land rights and forest/land management by the local people."

Second, the "internal constraints" present in the local communities were identified, in terms of their economic, social, and cultural aspects.

Third, the "possible main actors" were identified by evaluating local realities and national forest policies. In addition, the lessons learned from public participation in developed countries were identified. Based on these examinations, the Forest Conservation Project elaborated on these draft policy recommendations by considering how to overcome the internal and external constraints, and suggested that the main actors carry them out.

In particular, the series of policy-dialogue workshops held in Jakarta, Vientiane and Khabarovsk provided opportunities for the Forest Conservation Project to influence the policy-making process. For example, at the policy dialogue workshops held in Jakarta and Vientiane with local officials and community members in charge of forest management, the Project provided precise analyses and interpretations of existing environmental treaties and their resolutions, aiming to promote awareness and recognition of international regimes at the local level. In these two workshops, identifying the necessary legal and administrative measures also contributed to facilitate collaborative work and discussions. Field research activities for the purpose of understanding the actual situation of forest management at the local level have contributed greatly to influence the policy-making process through discussions with local officials in charge of forest management. Policy recommendations developed by the Participatory



4th International Workshop (The University of Tokyo)

Forest Management sub-theme of this Project also contributed to the discussion with policy-makers at the international workshops held in Jakarta and Vientiane. Moreover, the international workshop in Khabarovsk, Russia organized by the Project in September 2000 provided an opportunity for collaboration with several key organizations in the Russian Far East (RFE) and provided key local stakeholders with an opportunity to engage in policy dialogue and develop concrete strategies for forest conservation.

Among the various forest-related stakeholders, the FC Project places great importance on local people, with special reference to their participation in forest management. Their participation is indispensable for enhanced implementation of forest management, both at the international and local levels. As mentioned above, this has been widely recognized in international society, but concrete legal and administrative measures have yet to be identified and proposed. Thus the research theme and methods used by the Project have been appropriate and very timely for forest related stakeholders, especially for local people.

Regarding forest management, other specific issues, such as the conservation of biological diversity, trade control and the protection of intellectual property, are some of the key concerns in the debate over the practices of the World Trade Organization. The United States and the European Union created their own models, whereas the Japanese government and other Asian countries have not. Some members of the FC Project participated in this debate and carried out preparatory research work on these points in order to examine a suitable system for participatory forest management in line with the main trends in international negotiations regarding biological diversity, resource

management, trade control and intellectual property.

Project members carried out the main research activities. However, because forest issues relate to various other academic fields, these activities were supported by numerous outside collaborators including NGO activists, governmental officials and academics searching for suitable participatory management methods for stakeholders. This research structure and methodology contributed to supplement a relatively small research unit, providing information based on local situations, and to establish cooperative networks with relevant stakeholders in the region. These networks will provide a very useful base for further activities in the Project's second phase.

3. Summary of the First Phase Activities and Future Developments

The first phase of the IGES Project on Forest Conservation attempted to identify principles and measures for Sustainable Forest Management (SFM), based on experiences in the Asia-Pacific region. Extensive studies were carried out within a framework of four interrelated sub-themes by in-house research staff, visiting researchers and many outside collaborators. Based on the diverse research activities, including four IGES-FCP-organized International Workshops and three local policy dialogues, the Project reached many useful conclusions related to each sub-theme.

The Structural Analysis Sub-theme of forest destruction confirmed that the root causes of forest destruction include an "insufficient base of local participation and community rights," the "impact of market forces under an incomplete market system," as well as a "forest development paradigm with an industrial emphasis," and



Bored Forest

finally, “economic/political instabilities.”

The Participatory Forest Management (PFM) Sub-theme categorized existing PFM into several types based on their main actors, the legal status of forestland and activities, and made policy recommendations based on the examination of internal and external constraints on participation. The Timber Trade policy sub-theme conducted time-series economic analyses of the timber trade in the Asian market and collected data for a spatial equilibrium analysis of the timber trade. The Legal/Administrative Supporting Measures Sub-theme focused on international legal measures related to SFM, international processes for policy dialogue on forest issues, and domestic legal/administrative measures relating to PFM. The sub-theme elaborated the principles and measures for sustainable forest management with a special reference to local participation in SFM, in cooperation with other sub-themes.

With respect to project implementation, the Project has successfully constructed valuable networks with researchers, NGOs, local communities, and government officials. Although these networks were based on inter-personal relations with project members, they may be utilized and evolve into inter-organizational relationships with IGES based on a contractual basis in the second phase.

An ultimate goal of the IGES-FCP is to develop strategies for desirable forest conservation and sustainable forest management. In the second phase, the Project will focus on objectives based on the outreach of first phase activities partly referred to above. The Project will develop local guidelines (IGES local guidelines) and national guidelines (IGES national guidelines) for meaningful participation in forest management at the local and national levels. In addition to these objectives, the Project will work to develop recommendations (IGES policy recommendations) to ensure the effective application of international treaties with local and national participation in sustainable forest management.

(Hiroji Isozaki)



D. Environmental Education Project (EE)

1. Objectives - First Phase

The primary goal of the Environmental Education Project is to promote and foster eco-consciousness towards building an environmentally sound, sustainable society in the Asia-Pacific region, which includes the wise use of resources. The Project identified two goals to achieve this purpose:

- i) Develop a comprehensive regional strategy on environmental education; and
- ii) Establish an international network to implement an environmental education strategy in the Asia-Pacific region in order to improve the quality of the environment.

To achieve these aims, the Project established the following research objectives:

- (a) Develop and propose proven methods to encourage all countries and areas in the region to implement appropriate environmental education programs;
- (b) Design and support networks that provide generic assistance to countries, areas and NGOs in the region in order to encourage and improve environmental education;
- (c) Propose collaborative projects with other countries in the region to promote the improvement of environmental education.

The methodology of the Project was guided by the principles of synergy, partnership and participatory techniques within a three-year timeframe and with activities broken down into five phases.

Phase 1 - Assessment of the State of Environmental Education in the Region

A preliminary review of regional environmental education activities was conducted. Based on this assessment, some countries were selected as sites for case studies to gather additional information, if necessary, using secondary data and participatory techniques.

Phase 2 - Identification of Key Issues - Developing Principles and Guidelines

Data and information obtained from the status

reports and case studies were analyzed to identify key issues in environmental education. This information was used to determine the range of strategies employed, understand their contexts and other factors influencing the relative degree of success of environmental education activities, and to investigate the obstacles faced and the mechanisms used to overcome these problems. This method of analysis was used to develop principles and guidelines to describe "successful practice" in environmental education in each of the four areas: business/industry, non-governmental organizations, media and schools.

Phase 3 - Development of a Strategic Framework

Workshops and seminars were organized with regional specialists, experts and national collaborators to review and revise the issues, principle and practices identified in Phase 1, and then to draft a framework for a comprehensive regional strategy.

Phase 4 - Development of a Comprehensive Strategy

A draft strategy was prepared within the accepted framework of principles and guidelines, and then discussed and revised in workshops with the help of regional experts, specialists and national collaborators.

Phase 5 - Publication and Dissemination

The strategy was produced as a guideline for to accomplish the objectives of the project, and the findings were disseminated to agencies responsible for, and concerned with, environmental education in the region.

2. Project Progress in FY2000

1) Outline of Activities

In the fiscal year 2000, the Project focused on producing a comprehensive analysis of data and information, preparing reports and then disseminating them in the region. The main activities are summarized below.

- i) The promotion of networking with educators and organizations concerned with environmental education, first started in 1998, was continued in fiscal

year 2000. This activity covered the whole Asia-Pacific region, with a special focus on Indonesia and Japan.

- ii) Based on the idea that partnerships between sectors should be promoted in order to effectively implement environmental education, the Project set out four research sectors: business/industry, NGOs, media, and schools. A sub-research team was created for each sector and, when necessary, they conducted field surveys to gather data and information. Reports for each sector in the fiscal year 2000 were compiled.
- iii) The assessment of status reports on environmental education, which began in 1998, was continued, analyzed and synthesized in order to provide a general overview of environmental education in the Asia-Pacific region. A report titled "Environmental Education in Asia and the Pacific Region: Some Problems and Prospects" was prepared. Also, a document titled "Regional Strategy on Environmental Education in the Asia-Pacific Region" was produced, based on the analyses of the status reports, workshop discussions and consultations with environmental educators and facilitators in the region.

2) Major Outputs of the Environmental Education Project in FY 2000

- i) The Project conducted a study on the role of business and industry in promoting environmental education in selected countries of the Asia and Pacific region, namely, India, Indonesia, Korea and Japan. The study examined how businesses and industries have promoted environmental education in these countries. The commissioned report focused on successful examples of environmental education carried out in this sector and examined the mechanisms for promoting environmental education in the future.
- ii) In the field of NGO research, the Project focused mainly on the situation of NGOs in Indonesia. In particular, the Project assisted with the Japan-US Common Agenda Round Table (CART) Environmental Education Project in Indonesia, and established direct contact with over eighty Indonesian NGOs working in the environmental education

field. The Project also implemented a JICA program for training NGO staff in Indonesia.

- iii) Based on research on media and environmental education conducted by the Media Research Team (established in 1998), the Project began production on a commercial publication. Also, some Project and team members participated in the Media Symposium in Kitakyushu City, with a presentation and the distribution of a report titled "The Role of Media and Environmental Education Towards Sustainable Development in the Asia-Pacific Region." A summary of the ensuing discussion was presented in the ESCAP meeting by the chairperson of the symposium.
- iv) In the field of formal education in the Asia-Pacific region, particularly in institutes of higher learning, project researchers analyzed and described the general status and types of environmental education programs and information. One of the outcomes of this study was a paper titled "Environmental Education at the Tertiary Level in the Asia-Pacific Region."
- v) Project researchers collected status reports on environmental education in thirty-four countries and two special areas, encompassing the entire Asia-Pacific region. These reports provide preliminary data and information on environmental education in the region, and because of their unique importance, project members compiled, revised, and condensed the results of these reports for publication.
- vi) The document entitled "Regional Strategy on Environmental Education in the Asia-Pacific" was revised and updated, taking



Nature Game

into consideration the issues mentioned in the thirty-six status reports, concerns raised in several meetings, and the comments from environmental educators, experts and facilitators in the region. In the revision process, the Project also incorporated the recently raised needs and concerns from countries and stakeholders in Asia-Pacific region. The Project also published a report on the Regional Workshop on Environmental Education in the Asia-Pacific organized in December 1999.

- vii) The Project organized the Workshop on Evaluation Activities of Environmental Education to discuss the evaluation of environmental education activities with about twenty specialists participating from the fields of environmental education, social psychology, outdoor education, school education, social education conducted by NGOs, project management, and developmental education.
- viii) In cooperation with the Japan Forum of Environmental Education (JEEF), the Project also participated in evaluating an environmental education video project prepared by Japan's Environment Agency (now the Ministry of the Environment) in Fiji and Indonesia. Evaluation activities included gathering direct responses on the video from children, their written feedback and suggestions for future improvements.
- ix) The Project also summarized its research results of the past three years in two papers: an interim report entitled "Perspectives on Environmental Education



Workshop on Environmental Education in Asia-Pacific Region

in the Asia-Pacific Region," and a first-phase, strategic research report titled "The Environmental Education Project Report."

3. Conclusion of the First Phase

For many years, the international community has been calling for the implementation of environmental education to achieve the goals of environmental conservation. Recommendations arising from important meetings such as Agenda 21 from the Earth Summit in 1992, and the Thessaloniki Declaration in 1997, strongly reiterated their commitment on the role of environmental education programs and activities. Taking into account their recommendations that indicate a significant amount of international consensus, the IGES Environmental Education Project began conducting research on methods to promote and improve environmental education, especially in the Asia-Pacific region.

The Project found that the necessity and importance of environmental education has already been acknowledged and that related activities have been started throughout the Asia-Pacific region. In addition, business and industry, non-governmental organizations, the media and educational institutions of higher learning are all recognized as important actors for implementing environmental education in its broadest context. However, this comparative study found wide differences in the design of environmental education systems in the region. These differences are thought to be due to differences in cultures and in political and economic systems. Nevertheless, it appears that transferring environmental education system designs and techniques to other countries is possible by rearranging and proposing appropriate policies or methods that have already proven successful elsewhere. However, it must be noted specific systems or techniques used in developed



IGES Opening Symposium

countries are not always appropriate in developing countries.

The Project has collected many cases of environmental education activities from the Asia-Pacific region that seemed to be successful. If these successes can be transferred to other countries, it seems possible to create new development patterns or to “leap-frog” the success of environmental education in the region. Because grants and other funds must be used effectively, it is important that international cooperation relating to the environment and environmental education primarily focus on technology transfers.

The Project formulated the “Regional Strategy on Environmental Education in the Asia-Pacific” in cooperation with researchers, experts and specialists from the region. This strategy essentially shows some direction on how to organize and manage environmental education effectively. However, because this strategy is intended to be comprehensive enough to apply to the entire Asia-Pacific region, it might be considered too broad. Despite this, one must remember that this is only an initial attempt to present a strategy for the entire region, and it must be revised in the future to adapt to changing circumstances.

Our experience and the empirical evidence gathered from three years of study have confirmed that networking between stakeholders is indispensable for effectively implementing environmental education programs and activities. The basis of a good network is partnership, and this concept was widely recognized in conferences, symposiums and workshops organized by the Project in the field of environmental education. Successful partnerships require cooperation between individuals, organizations and/or institutions to achieve a common goal agreed upon by stakeholders on a mutual and reciprocal resource-sharing basis.

The Environmental Education Project has continued to foster environmental education networking between organizations, institutions and individuals in the Asia-Pacific region through periodic meetings such as the Environmental Education Workshop for Overseas Assistance, the International Conference on Environmental Education in the Asia-Pacific Region, and the Regional Workshop on Environmental Education in the Asia-Pacific. These networks have the potential for developing concrete actions that

can play vital roles in effectively promoting environmental education in the region.

(Osamu Abe, Masahiro Takahashi)

1. Purpose and Objectives - First Phase

Environmental governance is about how societies deal with environmental problems. It is concerned with the interactions among formal and informal institutions and the actors within society. These interactions influence how environmental problems are identified and addressed.

Environmental governance structures in Asia are rapidly changing. At the domestic level, new environmental laws, programs and institutions are being established. At the sub-regional, as well as regional levels, environmental networks and cooperative schemes are forming. These rapidly changing governance structures greatly influence how environmental problems are addressed, and it is therefore critical to examine the nature of environmental governance, specifically in this region.

The main purpose of the IGES Environmental Governance (EG) Project is to address and analyze the major issues of environmental governance and then make concrete policy recommendations to deal with environmental problems relevant to the Asian region. In accord with this, several national and sub-regional environmental governance systems were selected and examined in a cross-sectoral and comparative manner.

One major component of the research project involved conducting case studies of national environmental governance systems in a number of selected countries in Asia. Another major component was a comparative analysis of existing or emerging programs and mechanisms for international environmental cooperation in Asia, particularly at the sub-regional level.

In addition, a few other sub-components of the EG Project were developed during a mid-course review of the work program, such as a case study of the environmental management policies and practices of Japanese private companies. Another one involved a preliminary literature survey, and a case study of Thailand concerning the relationship between the processes of globalization of the economy and environmental governance.

2. Achievements in Fiscal Year 2000

Environmental governance is precisely about influencing the processes of policy-making and implementation in both the governmental (public) and non-governmental (private) sectors. Through its research and production of policy recommendations (albeit on a highly generalized level at this stage), the research findings of the EG Project will contribute to identifying some of the key factors and instruments in designing and building systems of environmental governance that are more transparent, fair, just, and effective by allowing all major stakeholders to participate. The research results will also assist countries in Asia in mobilizing resources and tools in the process of policy-making and implementation.

1) Case studies of national environmental governance systems in selected Asian countries

With regard to the comparative study of national environmental governance systems in Asia, the findings and outcomes of four country studies in China, India, Japan and Thailand were disseminated and discussed at an international workshop organized by IGES on 18 March 1999. Later in the same year, country reports were prepared for five more countries in Asia: Bangladesh, Indonesia, Malaysia, the Philippines, and the Republic of Korea. The results of these additional country studies, along with presentations made on cross-sectoral issues such as "trade and environment" and "environmental security," were discussed at an international symposium organized jointly by IGES and Sophia University on 9 March 2000. More than 300 people participated, representing a wide cross-section of public as well as private sector organizations and individuals.

A summary report synthesizing the findings of the nine country studies, as well as the conclusions of the two international workshops and accompanying panel discussions, was prepared for the meeting of governmental environment ministers of the Asia-Pacific region at the ECO ASIA 2000 Congress and ESCAP/MCED 2000, both held in Kitakyushu, Japan in August 2000. These findings were also presented to the International Symposium on Green Tax Reform Towards a Sustainable Society, which was jointly

organized by the Korea Environmental Institute (KEI) and IGES along with the Asia-Europe Environmental Technology Centre (AEETC) in Seoul, Korea on 24 and 25 October 2000.

Currently, negotiations are underway with an international publisher for commercial publication of all research results and policy recommendations derived from the comparative study of national environmental governance systems in Asia.

2) The comparative study of programs for international environmental cooperation in Asia

A set of working papers was developed and disseminated through several channels regarding the comparative analysis of regional and sub-regional environmental programs. A paper was presented at the International Workshop on the Long-Term Prospective Project of ECO ASIA, held in February 2000, in which environmental experts and representatives of international agencies from the Asia-Pacific region participated. Part of the presentation was used as a background information document for the ESCAP/MCED 2000. Another paper focusing on Northeast Asia was presented at a sub-regional forum for policy dialogue at the Northeast Asian Conference on Environmental Cooperation (NEAC), held in Ulaanbaatar, Mongolia in July 2000.

A paper synthesizing the results of these studies was presented at the International Workshop on the Long-Term Prospective Project of ECO ASIA on 27 and 28 February 2001. In addition, a summary of research results was presented to a committee on international environmental cooperation organized under the aegis of the Ministry of Environment of the Government of Japan. Furthermore, the working papers were compiled and published as a report,



International Symposium on Environmental Governance in Asia



Symposium for Environmental Investment

and distributed to policy-makers in national governments and regional/international organizations.

At Acid Rain 2000, the sixth international workshop on acid rain, held from 10 to 16 December 2000 in Japan, the EG Project made a presentation entitled "The Politics of Regional Cooperation on Acid Rain Control in East Asia."

3. Remaining Issues in the EG Project's First Phase

Given the limited human and financial resources available within IGES, the EG Project achieved its original objectives relatively well and on time, in accordance with the original research program and implementation plans. The modest results obtained are satisfactory as a product of the first phase of development for applying both the methodologies and tools for analyzing a complex, cross-cutting issue like environmental governance, and for elaborating policy guidelines and recommendations.

While a number of studies have been conducted on the environmental policies of national or local governments in Asia by individual researchers as well as by international agencies, notably, the World Bank, ADB, OECD, and ESCAP, few have been comprehensive enough to cover the various roles and functions performed by private businesses, NGOs and civil society in environmental governance. The EG Project was a rather rare, if not unique, example of strategic research whereby an entire range of processes, actors and institutions involved in environmental governance were treated as a system, and policy proposals were developed to improve the design and operation of that system.

In view of the fact that there was little



precedent for similar studies before the EG Project team undertook the comparative analysis, the findings and conclusions of the EG Project were of assistance to policy-makers in understanding the whole picture of regional/sub-regional environmental cooperation, and for considering future steps to strengthen such cooperative programs, mechanisms and institutions.

Included among the results of the above studies were policy recommendations, such as those to strengthen institutions and/or legal provisions, and the introduction of new policy instruments for improving the effectiveness of environmental governance. However, most of these proposals require further in-depth analyses to determine their level of specificity, appropriateness and feasibility under the prevailing conditions of each country or the region as a whole. As a consequence, the EG Project has not yet reached a stage where it can make such comprehensive assessments and specific policy recommendations with a reasonable degree of confidence. By pursuing further in-depth studies, it should lead to more concrete and practical policy proposals suited to the specific needs and circumstances of each country or region.

The relationships between national capacities for environmental governance and the processes of globalization, in general, and trade and investment, in particular, as well as political democratization, decentralization, and the ongoing revolutions in information technology and biotechnology need to be studied further.

(Hisakazu Kato, Yohei Harashima)

NDP

F. New Development Patterns Project (NDP)

1. Objectives - First Phase

The aim of the New Development Patterns (NDP) Project is to explore new patterns of development in order to arrive at society with a sound material cycles. The Project's focus is on countries in the Asia-Pacific region that face various economic and social problems due to their large populations and rapid economic growth. The work was carried out in line with the basic objectives of IGES, working in close collaboration with the other five ongoing projects.

The objectives and targets of the first research phase were as follows:

- 1) Study and identify relevant issues to be considered in the search for "new development patterns."
- 2) Share the results with the general public as well as with outside experts.
- 3) Contribute to international forums of policy consultations by submitting documents and giving keynote speeches in order to incorporate the idea of "new development patterns" into practical policies.
- 4) Select topics out of the issues identified in order to conduct more detailed studies. The topics studied included i) transfers of environmentally sound technology, ii) business and environmental governance, and iii) information technology and the environment.
- 5) Identify topics to be studied further in the second research phase.

2. New Development Patterns Project Results - Fiscal Year 2000

- 1) Issue papers were compiled and published in English by Kluwer Academic Publishers under the title "Environment in the 21st Century and the New Development Patterns." The publication helped to stimulate public debate on the topic.
- 2) The following activities were conducted in relation to the Environmental Congress for Asia and the Pacific (ECO ASIA):

- i) A package of current situation and policy papers entitled "Policy Implications in Addressing Critical Environmental and Sustainable Development Issues of the Region" and "Specific Issues on Sustainable Development in Asia and the Pacific" were submitted to the ECO ASIA Long-term Perspective Project International Workshop in February 2000, the regional preparatory meeting of ESCAP/MCED held in Bangkok in May 2000, the Senior Officials Meeting of ESCAP/MCED, MCED 2000, and ECO ASIA 2000 in September 2000 in Kitakyushu City. The papers proved to be significant contributions to these meetings and the whole process leading up to MCED 2000.
- ii) At the ECO ASIA 2000 conference, Kazuo Matsushita, the leader of the New Development Patterns Project, gave a keynote presentation on a progress report on Phase II of the ECO ASIA Long-term Perspective Project. The presentation was well received by the participants and stimulated discussions on future policy directions towards the Rio+10 process.
- iii) More than 240 participants from 40 countries in the Asia-Pacific region attended ECO ASIA 2000, including ministerial level participants from 23



"Environment in the 21st Century and the New Development Patterns"



A Symposium to Commemorate the Release of the Book “Business and Environmental Governance”

countries, as well as representatives from 17 international organizations. More than 220 participants from 42 countries/regions attended ESCAP/MCED, including 31 participants from the ministerial/vice-ministerial level, as well as representatives from 33 international organizations.

- 3) The publication of the book entitled “Business and Environmental Governance” was well received by the public. In particular, it was unique in that it was written by those responsible for environmental management in respected companies such as Nippon Steel, Mitsubishi Chemicals, and Toyota. It analyzed the experiences of the Japanese companies with environmental pollution, and how they approached and implemented environmental policies. It also analyzed how the environmental policies affected corporate behavior. The publication and subsequent open forums facilitated dialogue between various stakeholders.
- 4) One of the priority themes identified in the first year of overall study on new development patterns was “Information Technology and Environment.” As the first step of an exploratory stage of research, the New Development Patterns Project held an international workshop with the Wuppertal Institute for Climate, Environment and Energy in Germany in November 2000. The workshop, titled “International Climate Policy and the IT-Sector,” provided a forum to facilitate constructive discussions on the environmental implications of the digital economy and a policy framework to support industry’s efforts on global warming. Thirty participants from the IT

industry, the German and Japanese governments, and research institutes attended the workshop. The results were reported at the side event of the Sixth Conference of the Parties to the UNFCCC (COP-6) held on 23 November 2000 in The Hague, also co-organized by IGES and the Wuppertal Institute.

The study group also conducted brainstorming sessions on the interactions between IT, society and the environment. The sessions, co-organized with Nikkei BP, produced useful insights for further study.

- 5) The NDP Project convened various outreach activities, including public forums on “The Asian Environment and Development in the 21st Century” and “Business and Environmental Governance.” These forums were attended by a variety of participants, including government officials, business people, NGOs and members of the public. They facilitated dialogue and mutual understanding of their respective positions, as well as identifying opportunities for future collaboration.

3. Summary of the First Phase

In its first phase, the New Development Patterns Project explored new paths for social and economic development in order to shift civilization beyond a society presently based on mass-production, mass-consumption and mass-disposal, with a focus on the Asia-Pacific region. The results produced by the Project include the publication of “The Environment in the 21st Century and New Development Patterns” in both English and Japanese; the publication of “Business and Environmental Governance” in Japanese; contributions to ECO ASIA and ESCAP/MCED 2000; a study and its accompanying summary report on transferring environmentally sound technology; and finally, the completion of a preparatory study entitled “Information Technology and the Environment.” With respect to the greater objectives of the Project as a whole, however, the work accomplished so far is preliminary.

The Asia-Pacific region is predicted to have a growing impact on the global environment in the new century due to its projected economic development and population growth. Therefore, in the second phase of the Project, it is essential

to continue evaluating the environmental status of the region based on more accurate and proper data, and to provide innovative policy recommendations based on these evaluations. For this reason, it is advisable on a periodic basis to prepare and make public a publication, tentatively entitled "The Environmental White Paper for Sustainable Development in the Asia-Pacific Region." In the process of preparation, the environmental information, environmental evaluations, and policy recommendations that are available from organizations such as ECO ASIA, ESCAP, and the Asian Development Bank (ADB) will be reviewed. The available analyses from a global perspective, such as those by the United Nations Environmental Programme (UNEP), World Bank and the World Resource Institute (WRI) will also be taken into account. Our network with other collaborating institutes will also be utilized to collect local information. We expect to put forward innovative policies for the twenty-first century to policy-makers in the

region. Activities on these themes will be carried out based on the outputs obtained through the preparation of the White Paper.

It is also important to have a system in place to respond to urgent needs and requests for information from policy-makers during the process of international environmental policy-making by selecting and reformulating the available research results from both within and outside of IGES in a timely manner. The second phase of the Project will focus on facilitating the planning and implementation of research with these goals in mind.

(Kazuo Matsushita)



Japan-US Environmental Forum

III. Activities of IPCC/TSU

Technical Support Unit for the Intergovernmental Panel on Climate Change National Greenhouse Gas Inventories Programme

The Task Force on National Greenhouse Gas Inventories (TFI) was established by the Intergovernmental Panel on Climate Change (IPCC) at its fourteenth session (19 October 1998, Vienna) to oversee the IPCC National Greenhouse Gas Inventories Programme (IPCC-NGGIP). The objectives of the IPCC-NGGIP are to: (a) Develop and refine a methodology and software, agreed upon internationally, to calculate and report national greenhouse gas (GHG) emissions and removals; and (b) Encourage the widespread use of this methodology by countries participating in the IPCC and by signatories of the United Nations Framework Convention on Climate Change (UNFCCC).

The IPCC Working Group I started work on GHG inventories as early as 1991, in close collaboration with the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA) in Paris. In 1999, the Technical Support Unit (TSU) for the IPCC-NGGIP was set up at the Institute for Global Environmental Strategies (IGES) in Japan to assume the activities started in Paris, in accordance with a decision made by the IPCC at its fourteenth session.

The TSU, financially supported by the government of Japan, operates under the guidance of the Task Force Bureau (TFB) for the NGGIP. The TFB, co-chaired by Mr. Takahiko Hiraishi (Japan) and Dr. Buruhani Nyenzi (Tanzania), is composed of fifteen members: seven from developing countries and countries with economies-in-transition, and eight from developed countries. The TFB provides guidance on the NGGIP for TFI.

1. ACCOMPLISHMENTS IN FY2000 (April 2000 - March 2001)

1) Meetings Organized and Participated in by TSU

i) The 16th Session of the IPCC

The TSU, together with TFB Co-chairs, participated in the Sixteenth Session of the IPCC (IPCC XVI) held from 1 May to 8 May 2000, in Montreal, Canada. In the meeting, the report on

“Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories” was presented by TFB Co-chairs and accepted by the Panel. In the same meeting, the draft Terms of Reference (TOR) for the Task Force on the NGGIP was presented for consideration by the Panel. The Panel approved the draft as an interim TOR, which indicated that the TOR would remain in force until a review at IPCC XIX in 2002. The interim TOR also indicated that the TSU, with financial support from the government of Japan, should continue to support the TFB. The meeting in Montreal was mainly focused on the approval of the Special Report on Land-Use, Land-Use Change, and Forestry. TSU participation provided opportunities to understand the complex issues in Land-Use, Land-Use Change, and Forestry (LULUCF) vis-a-vis the Kyoto Protocol (KP). The Twentieth Session of the IPCC Bureau was held in the margins of IPCC XVI. The TSU also participated in the meeting to support the TFB Co-chairs in presenting the NGGIP work plan and budget.

ii) SBSTA12 and Other Workshops related to UNFCCC

From 8 to 12 May 2000, TSU Program Officer Mr. Kiyoto Tanabe participated in the Latin American and the Caribbean Regional Workshop of the Consultative Group of Experts on National Communications from Non-Annex I Parties in Mexico City, Mexico, on behalf of TFB Co-chair



Co-chairs of the Task Force Bureau (TFB) of the NGGIP, editors of the Good Practice Report, and TSU Staff at IPCC XVI, Montreal, May 2000.

Mr. Takahiko Hiraishi. This was mainly to gain a wider understanding on key issues that need to be addressed in order to improve on the compilation of greenhouse gas inventories in developing countries.

The TSU participated in the "Twelfth Session of the Subsidiary Body for Scientific and Technological Advice" (SBSTA) from 12 to 16 June 2000 in Bonn, Germany, in order to keep abreast of the issues being discussed by the Parties in relation to methodological issues on greenhouse gas inventory work. The sessions attended by the TSU included, among others: (a) LULUCF; and (b) Guidelines under Articles 5, 7, and 8 of the KP.

The Head of the TSU, Mr. Sal Emmanuel, attended a workshop on LULUCF from 10 to 15 July 2000 in Poznan, Poland, to gain a better understanding of the principal issues brought up in the Special Report on LULUCF and how to apply this knowledge in developing "good practice guidance" in this sector. Among the outcomes of the meeting was a clarification of some of the more difficult issues in the special report, and the examination of the relationship between the issues brought up in the report and the relevant Articles in the KP.

iii) IPCC Expert Meeting : Establishing a Database on GHG Emission Factors

The TSU organized and participated in the "IPCC Expert Meeting : Establishing a Database on GHG Emission Factors" held on 24 and 25 July 2000, in New Delhi, India, in order to: (a) Develop a work plan for constructing a database of emission factors with wide regional and sectoral coverage; (b) Discuss ways of operating and maintaining the database; and (c) Determine a preliminary set of user requirements.

The meeting was hosted by the Tata Energy Research Institute and attended by twenty-seven participants from seventeen countries, as well as from the Secretariat of the UNFCCC, the Organizacion Latinoamericana de Energia (OLADE), and the TFB of the IPCC-NGGIP. The meeting resulted in an outline of user requirements, including quality aspects, and a proposed work plan to construct a prototype database on the Internet by the end of 2001.

iv) The Informal Meeting of the TFB

The TSU organized an informal meeting of the TFB to discuss possible approaches on a NGGIP work plan for good practice in land-use, land-use change, and forestry. The meeting was convened

on 6 September 2000, in Lyon, France, in the margins of the Thirteenth Session of the SBSTA. At the meeting, it was agreed to hold an Expert Planning Meeting on LULUCF in February 2001 to commence with the work plan for good practice.

v) SBSTA13, COP-6 and Other Workshop

The TSU also participated in the Thirteenth Session of the SBSTA (Part I), which was held from 4 to 9 September 2000 (informal session) and 11 to 15 September 2000 (formal session). The TSU participated in the meeting in order to be updated on methodological issues being discussed by the Parties in relation to greenhouse gas inventory work.

Mr. Emmanuel attended two technical sessions that were related to LULUCF between September and October 2000 and two inter-sessional consultations of the SBSTA related to methodological issues. The technical sessions were: (a) Verification of country-level carbon stocks and exchanges, held in Rome, Italy (UN Food and Agriculture Organisation), from 27 to 29 September 2000; (b) A meeting on Implications of the Kyoto Protocol for the European Pulp and Paper Industry, presented by CEPI (Confederation of European Paper Industries) at FAO, held on 3 October 2000, also in Rome.

As to the inter-sessional consultations, Mr. Emmanuel participated in the meetings organized by the UNFCCC on: (a) Issues related to Articles 5, 7 and 8 of the Kyoto Protocol, held from 6 to 8 October 2000, in Bonn, Germany; and (b) Land-Use, Land-Use Change and Forestry held from 9 to 11 October 2000, in Viterbo, Italy.

Part II of the Thirteenth Session of the SBSTA was held from 13 to 18 November 2000, in The Hague, Netherlands, back-to-back with COP-6, which was held from 13 to 25 November 2000. The TSU participated in the session dealing with how the Parties treated the issue of LULUCF activities under the KP that might have implications on the NGGIP work program. Other sessions attended by the TSU at COP-6 were, among others, discussions on Articles 5, 7, and 8 of the KP and the issue of Mechanisms to implement under the KP.

vi) The Fourth Session of the TFB for the IPCC-NGGIP

The TSU coordinated the Fourth Session of the TFB for the IPCC-NGGIP (TFB-4) on 8 to 9 December 2000 in Geneva, Switzerland to discuss

major issues of the NGGIP, which included, among others: (a) The LULUCF Project, (b) Emission Factor Database (EFDB) Project, and (c) The NGGIP Terms of Reference (TOR).

At the meeting, it was agreed to draw up a list of four options on LULUCF for consideration by the Twenty-First Session of the IPCC Bureau (IPCC Bureau 21). The TSU was requested to develop a draft Strategic Implementation Plan (SIP) for the EFDB Project for discussion and possible endorsement at the fifth session of the TFB (TFB-5). Following the discussion on the TOR, the TFB requested that the TSU prepare a paper on the foregoing issues to be discussed at TFB-5, and for submission to the IPCC Plenary in Nairobi in April 2001.

vii) IPCC Bureau 21

From 11 to 12 December 2000, the TSU, in support of the TFB Co-chairs, participated in IPCC Bureau 21 in Geneva, Switzerland. The TFB Co-chairs presented the four options on LULUCF that were developed at TFB-4. The IPCC Bureau agreed to the proposal of the TFB Co-chairs to conduct informal consultations on LULUCF to be held between February and March 2001, and to be followed by a planning meeting after COP-6 bis between July and August 2001. The Bureau also agreed that the terms of reference for the LULUCF project could be developed for agreement by the IPCC Panel at its Eighteenth Session, with the completion of the guidance report for presentation at COP-8.

viii) The International Consultations on LULUCF and the Fifth Session of the TFB for the IPCC-NGGIP

On 12 and 13 March 2001, the TFB Co-chairs, with support from the TSU, conducted the



TSU staff at work in Geneva, March 2001.

Informal Consultations on LULUCF in Geneva, Switzerland. The TSU prepared a background paper as reference material for the meeting. The Informal Consultations resulted in the development of a Provisional Outline of the LULUCF Report, which was then forwarded for discussion at the TFB-5. Back-to-back with the Informal Consultations was the convening of the TFB-5, also organized and participated in by the TSU on 14 and 15 March 2001 in Geneva.

Overall, for FY2000, the TSU coordinated two informal TFB meetings, two formal TFB meetings and one Expert Meeting for the NGGIP. From May 2000 to March 2001, the TSU participated in fourteen international meetings related to national greenhouse gas inventory work.

2) Publications

The highlight of the TSU's accomplishments for FY2000 was the IGES publication, released under the NGGIP, of the IPCC Report entitled Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (Good Practice Report). The work was initiated by the IPCC-OECD-IEA Secretariat in Paris and taken over by the TSU in Japan in September 1999. The report was formally accepted by IPCC XVI in Montreal in May 2000 and released in September 2000. It was published in ring-binder format similar to the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines). About one thousand hard copies and CD-ROMs were printed and distributed. Two copies of the report were distributed free to each country through the IPCC, and the United Nations Framework Convention on Climate Change then distributed the report in both formats to the Parties at COP-6 in November 2000.

The SBSTA, at its twelfth session in June 2000, commended the IPCC on its report on good practice guidance as an elaboration of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, and recommended its use in the preparation of national greenhouse gas (GHG) inventories. The SBSTA concluded that good practice guidance should be applied by Annex I Parties to the extent possible for inventories due in 2001 and 2002, and should be used for inventories due in 2003 and beyond. Annex I Parties with economies in transition may phase-in good practice guidance two years later than other Annex I Parties. The SBSTA encouraged non-Annex I Parties to apply good practice guidance, where appropriate and to the extent possible in the preparation of their GHG

inventories, and recognized that applying good practice guidance could assist these Parties in developing national inventories that better reflect their circumstances.

After the publication of the Good Practice Report, the TSU started preparing for the publication of the background papers used in developing it. Thirty-three background papers are being reviewed and formatted for harmonization and finalization. Publication of the background papers is expected in December 2001.

3) Response to Inquiries

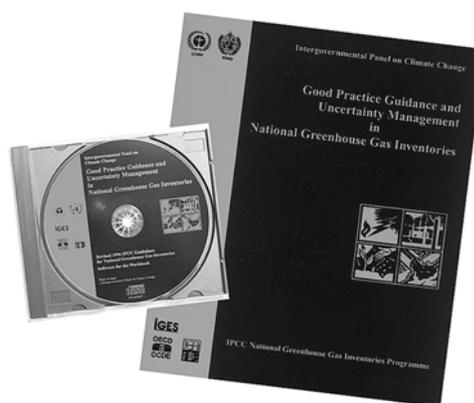
The TSU received several inquiries, clarifications and inventory-related requests from users of the IPCC Guidelines and the Good Practice Report. These requests were answered by utilizing the pool of expertise within the TSU, by consulting TFB Co-chairs and members, and by consulting with experts who had participated in the development of the IPCC products. The TSU has begun to store all incoming requests in a database for monitoring and reporting purposes. The TSU will be able to retrieve issues raised in using the IPCC Guidelines and the Good Practice Report from the database for future improvements of the documents.

2. PLANS FOR FY2001 (April 2001 - March 2002)

The TSU, in consultation with the TFB Co-chairs, will continue to coordinate expert meetings and supervise activities for the development and operation of an emission factor database. It will coordinate the activities on pilot testing the prototype database, including development of a user's manual and relevant documentation. For the Project on Land-Use Change and Forestry,¹ the TSU, in consultation with the TFB Co-chairs, will continue to coordinate expert meetings to complete the work on the Elaboration of Good Practice Guidance in Land-Use Change and Forestry for the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. It will also

¹ The IPCC, at its seventeenth session in Nairobi, Kenya from 4 to 6 April 2001, requested the TFB to organize the work on Good Practice Guidance and Uncertainty Management for the Land-Use Change and Forestry (LUCF) Sector, beginning with an Expert Group Planning Meeting to be held in advance of the 18th meeting of the Panel. Hence, the acronym LULUCF used in the previous part of this report will be changed to LUCF to conform with the Panel's decision.

continue to support the activities of the IPCC-NGGIP by organizing, coordinating and participating in meetings of the TFB and the IPCC, again, in consultation with the TFB Co-chairs. The TSU will also continue its work on the publication of the background papers used in developing the Good Practice Report. Finally, the TSU will continue to participate in local and international meetings related to GHG inventories (e.g., SBSTA and COP meetings) and will continue to support IGES in its research and development activities.



"Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories"

(Sal Emmanuel, Leandro Buendia)

IV. Capacity Building Program

The IGES Capacity Building Program aims to train researchers and specialists from around the world that deal with environmental issues, especially in the developing countries of the Asia-Pacific region. In launching the program, IGES conducted an analysis of the current situation, including market research, by exchanging opinions with people in international organizations and NGOs.

As a result, IGES identified strategies would be most effective, especially from the point of view of efficiency and economy in the Asia-Pacific region, where the information technology revolution is currently taking place: "eLearning" (using the Internet or the Intranet), interface-style workshops for capacity building, accepting interns, and on the job training (OJT) courses.

As a result of research, networking and planning, the IGES Capacity Building Program now offers three distinct programs:

- eLearning
- Workshops
- Intern program

In the fiscal year 2000, the following activities were carried out, centered on the development of the eLearning system.

1. Development and operation of the eLearning system

1) IGES eLearning system

The use of an existing systems for electronic learning was considered in the beginning, but it became evident through surveys that existing courses were not sufficient to meet the administrative functions and other standards sought by the IGES Capacity Building Program. Therefore, IGES began developing its own original eLearning system, including its own software and "eCourses." The system was run on a trial basis for testing during workshops and seminars throughout the fiscal year 2000.

2) Development of Software

The Capacity Building Program developed eight software versions in Japanese and English throughout 2000, taking into consideration the results of the surveys of the market and existing eLearning systems conducted in 1999. During the software development stage, improvements in system design and programming, as well as many

Types and Features of Software Developed by the IGES Capacity Building Program

Software Title	Features
eLearning Management software (6 types) Course Manager Pro for companies and governments (Japanese/English) University Pro for virtual universities (Japanese/English) Gakko Pro for vocational / technical schools, language and other schools (Japanese/English)	Software for the integrated management of eLearning with the ability to work on everything on-line, from uploading training courses, instructor assignments, student registration, automatic progress reports, and management of grades and student information. (Compatible with UNIX or Windows NT servers.)
eCourse authoring software (2 types) Course Maker (Japanese/English)	Software for authoring eCourses (IGES online training courses) with ease. Various resource files may be added, or multiple-choice tests and essay questions with time limits may be created and inserted smoothly. These may be used in combination with the course management software for more professional management. (Windows 95/98 and Internet Explorer version 4.01 or higher version is necessary.)

testing sessions, were carried out. Software was developed first in English, and then converted into Japanese.

In October 2000, the IGES Capacity Building Program set up a Web Site that it continues to manage and administer exclusively for capacity building. The Japanese Web Site address is <http://www.iges-japan.net>, and the English Web Site is at <http://www.iges.net>. Both Web Site have integrated functions, including the eLearning software, the content, and the system. Many users interested in capacity building are currently

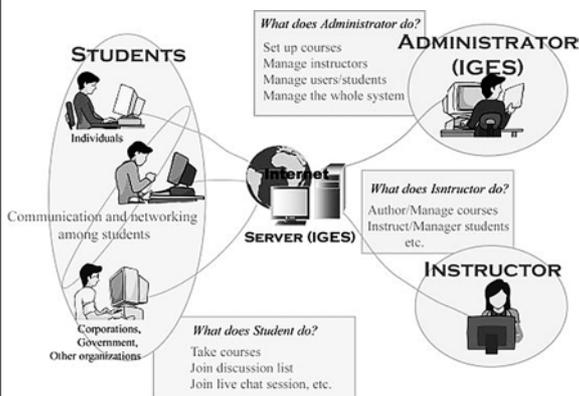
testing the two sites. IGES plans to launch the Web Site exclusively focused on marketing the system itself.

3) Authoring eCourses

Currently, eCourses on environmental and other professional skills are available on the Capacity Building Program Web Site, offered free of charge to anyone who registers. IGES hopes to continue developing and improving the courses and their content by employing resources from both inside and outside the institute.

* Features of the IGES eLearning system

The IGES Capacity Building Program developed a system that allows students to learn from anywhere in the world, as long as they have the Internet (or Intranet) access. To use it, students open the Internet browser on their computers to access the World Wide Web, then go to the IGES Capacity Building Program Web Site. There, they select an eCourse (online training course) Web Site and register, and thus, the Internet browser becomes the "learning place."



The IGES eLearning system includes full management functions for course administrators as well. The program provides for easy management of student information, monitoring and evaluating of their learning progress, and grading.

* IGES eLearning system

The IGES eLearning system consists of three elements: (1) administrator, (2) instructors and (3) students.

The administrator creates an implementation

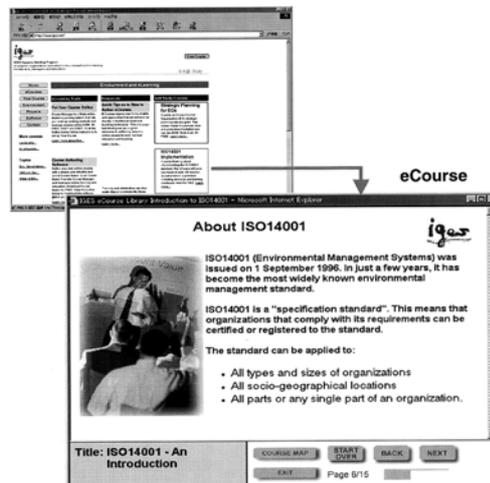
plan for eLearning, and launches the courses. The administrator may also assign an instructor to teach a course when necessary, or manage the students alone. On the other hand, instructors may develop course content when necessary, and monitor the learning progress of students. The students enroll and take the courses, carrying out their learning while staying in communication with the instructors.

* The IGES Capacity Building Program Web Site

There are currently six eCourses available on the Capacity Building Program Web Site (as of 31 March 2001). The number of courses offered will be increased in the future, centering on environmental topics.

URL (Japanese) <http://www.iges-japan.net>
(English) <http://www.iges.net>

IGES Capacity Building Program Web Site



eCourses Currently Available

- Leadership (English)
- Leadership (Japanese)
- Environmental Leadership (English)
- ISO 14001 Implementation (English)
- Presentation Skills (English)
- Conflict Resolution (English)
- Consensus Building (English)

2. Workshops

IGES organized a seminar titled "Leadership in a New Era" in February 2001, which was not a conventional, face-to-face seminar, but employed a combination of the face-to-face and the eLearning system. The conventional style is effective for its intimate communications among a small group of participants, but it has some restrictions in preparation, administration and costs. Using a combination of the eLearning and conventional styles, the seminar received praise from the participants as a new training system that takes advantage of both styles.

The Capacity Building Program plans to offer effective training courses in the future that employ the eLearning system, in order to promote environmental awareness and to support learning and capacity building in various areas. In addition, IGES has taken part in a workshop organized by the United Nations Institute for Training and Research (UNITAR).



Seminar "Leadership in a New Era"

3. Interns

From May 2000, IGES accepted Mr. Adeolu Odusote from Nigeria as a LEAD Intern, based on

an agreement between IGES and LEAD (Leadership for Environment and Development) International. Mr. Odusote was involved in



Informal Party with Interns

authoring content for the eLearning system.

From February 2001, Ms. Andrea Deri from the Institute for Sustainable Communities (ISC) was accepted as another LEAD intern. She is currently authoring content on "Community-based Learning for Sustainability (tentative)," in collaboration with Capacity Building Program staff.

Furthermore, IGES is promoting an exchange of researchers with research institutions around the world, especially in Asia, with an aim of becoming a more internationalized organization in the future. For this purpose, interns from China, Russia, and the Philippines were received to the several projects of IGES as visiting researchers this year.



Intern's Research Activities

(Glen Paoletto, Reiko Koyama, Sue Park)

V. Contribution to International Conferences

A. Contribution to ECO ASIA 2000 and ESCAP/MCED 2000

Two major conferences were held from 31 August to 5 September 2000 in Kitakyushu City, Japan—the Ninth Environment Congress for Asia and the Pacific (ECO ASIA 2000) and the Ministerial Conference on Environment and Development in Asia and the Pacific (ESCAP/MCED 2000). The former was hosted by the Environment Agency of Japan, Fukuoka Prefecture, and Kitakyushu City. The latter was hosted by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and supported by the Asian Development Bank (ADB) and United Nations Environment Programme (UNEP).

These conferences were two of the most important meetings held to discuss regional actions for realizing sustainable development in Asia and the Pacific, and to prepare for the World Summit on Sustainable Development (WSSD, also known as Rio+10), which is scheduled for the year 2002 in the Republic of South Africa. At the conferences, over 200 participants from 42 countries and regions, including Environment Ministers from each country and region, actively discussed the issues.

ECO ASIA was established in 1991, by the initiative of the Government of Japan, as a forum for high-level government officials and representatives from international organizations to discuss environmental policy in Asia and the Pacific. It has since been held annually, except in 1992, in major cities in Japan.

To enrich environmental policy dialogue at ECO ASIA, a scientific research project to reveal the state and future perspectives of the environment in the region was launched in 1993—the ECO ASIA Long-term Perspective Project (LTPP). Since its launch, the LTPP has been conducting comprehensive research on a wide range of issues related to sustainable development in Asia and the Pacific, and putting forward its research outcomes and policy recommendations. Since 1999, IGES has been invited to take key roles in the implementation of the LTPP by coordinating its research activities, and reporting its research outcomes and policy recommendations to ECO ASIA.

The first meeting of ESCAP/MCED was held in 1985. It has been held every five years in Bangkok,

Thailand, where ESCAP is located, to review the state of the environment and establish regional action programs (five-year programs) and to tackle environment and development issues in Asia and the Pacific. ESCAP/MCED 2000 was held in Kitakyushu City, Japan—the first time to be held outside of Bangkok.

ECO ASIA and the United Nations official regional conference were held back-to-back over six days. More than twenty side-events were held around the main conference site, including symposiums and exhibitions regarding environment and development that were hosted by the private sector, academia, and groups representing civil society. IGES was involved in both the main conference and the side-events in various ways and made the following contributions.

1. Contribution to the Conferences

IGES identified these conferences as opportunities to put forward policy recommendations based on its strategic research outcomes. It prepared a policy recommendation document covering a review on the state of the environment and on policy options for sustainable development in the region. The New Development Patterns Project drafted the document in collaboration with other IGES research projects and the Asia-Pacific Integrated Model (AIM) team of the National Institute for Environmental Studies (NIES), which has developed a socio-economic model for environmental perspectives in the region.

The policy recommendation document, entitled “Policy implications in addressing critical environment and sustainable development issues



ECO ASIA 2000

IGES Policy Recommendation Document (Excerpts)

- Integrated approach to population, poverty and environmental issues
- Opportunity for strategic environmental investment in recovering from Asian financial crisis
- Path to resource recycling-oriented society
 - To enhance environmental consciousness
 - To enhance regional environmental cooperation
 - To promote environmental investment and transfer of environmentally-sound technology
 - To implement integrated policy
- Implication from future prospects by AIM
 - Energy consumption in Asia-Pacific will exceed 30% of global gross total by 2025
- Implication for climate change
 - To introduce CDM
- Implication for urban environmental management
 - To improve urban infrastructure by utilizing financial resources from private sector
- Implication for sustainable forest management
 - To introduce participatory forest management
- Implication for environmental education
 - To develop training materials and to promote capacity-building
- Implication for regional/ sub-regional environmental cooperation
 - To promote regional environmental cooperation as regional security

of the region," and its background information paper, entitled "Specific issues on sustainable development in Asia and the Pacific," were submitted to the Preparatory Meeting of Senior Officials for ESCAP/MCED (the SOM, 31 August - 2 September 2000). Mr. Kazuo Matsushita, Acting Vice-President of IGES, made a keynote

1 ESCAP/MCED 2000 adopted four documents:

1) Ministerial Declaration on Environment and Development in Asia and the Pacific; 2) Regional Action Programme for Environmentally Sound and Sustainable Development 2001-2005; 3) Vision for the 21st Century: the Regional Message for the 10-Year Review of UNCED; and 4) Kitakyushu Initiative for a Clean Environment.

presentation to introduce the points of IGES recommendations to ministerial level participants of ECO ASIA (3 September 2000). The policy recommendations presented by IGES were widely welcomed and stimulated active discussions revolving around them through the series of meetings. The outcomes of the discussions were reflected in the Chair's Summary of the ECO ASIA and other documents adopted at the ESCAP/MCED.¹

The Kitakyushu Initiative for a Clean Environment, which the IGES Urban Environmental Management Project (IGES-UE) had played a key role in developing, was also

Kitakyushu Initiative (Excerpts)

- Policy guidance benefiting from the experience of Kitakyushu
 - i) To strengthen local initiatives
 - ii) To enhance partnerships
 - iii) To strengthen environmental management capability at the local level
 - iv) To improve the environmental technology base
 - v) To promote public and private sector investment in the environment
 - vi) To promote environmental information and education
 - vii) To strengthen international environmental cooperation, based on local initiatives
- Proposed measures
 - i) Establishment of the "Kitakyushu Initiative Network for a Cleaner Environment"
 - ii) Support from the national government
 - iii) Strengthened linkages with academic community
 - iv) Collaborateion with existing international initiatives
- Actions areas, targets, and indicators
 - i) Enhanced integrated urban planning strategies
 - ii) Improvement in air quality
 - iii) Improvement in water quality
 - iv) Management of wastes to meet minimum hygienic standards and reduction
 - v) Capacity-building, awareness-raising and stakeholder participation



IGES Seminar (MCED 2000)

submitted to the ESCAP/MCED/SOM. Prof. Hidefumi Imura, Project Leader of IGES-UE, made a presentation on its outline. The initiative was proposed with the aim of widely sharing policy guidance and principles for actions based on the experience of Kitakyushu area for improving the urban environment in Asia and the Pacific. Kitakyushu overcame its pollution problems by promoting partnerships and cooperation among multiple actors, such as local authorities, the private sector, academia, and citizens; and by implementing the necessary technological, regulatory, and institutional measures. The proposal was adopted at ESCAP/MCED and the key roles for its implementation (i.e., establishment and administration of the Kitakyushu Initiative Network for a Cleaner Environment) were consigned to the IGES Kitakyushu Office and the IGES-UE Project.

Besides these contributions to the conferences, IGES made efforts to broadly disseminate information about all of its strategic research activities and outcomes to the participants through actions such as joining the poster session of international, regional, and local organizations, and hosting an IGES seminar in the conference building. Information exchanges between IGES researchers/staff and the conference participants took place, for example, through question and answer periods regarding presentations made in the IGES seminar.

2. Activities at Side-Events

IGES also contributed to several side-events that took place around the main conference building, such as the Global 500 Asia Forum (hosted by the Global 500 Japan Network, Global Environment Action [GEA], and the City of Kitakyushu), Pre-Symposiums on MCED ESCAP / ECO ASIA 2000 (hosted by IGES, Fukuoka



Panel Display (MCED/ECO ASIA 2000)

Prefecture, and the City of Kitakyushu), Asia-Pacific Youth Caucus (hosted by UNEP, the United Nations Development Programme [UNDP], IGES, etc.), and the Media Symposium (hosted by the Asian Development Bank [ADB], etc.).

The Global 500 Asia Forum was held to provide an opportunity for sharing experiences, as well as to exchange knowledge and ideas of environmental conservation and sustainable development between the Global 500 Laureates of Asia and the youth of the region, who will be leading the movement towards sustainable development in the years to come. Prof. Akio Morishima, President of IGES, acted as moderator in the plenary session and the Group One session, "Path to Sustainable Development". Mr. Shigeyuki Okajima, Research Planning Manager of IGES, moderated the Group Two session, "Education for a Sustainable Future." Over 150 participants from different backgrounds joined the discussion at the forum, including Global 500 Laureates, UNEP Youth Caucus, GEA, experts and citizens. Prof. Shuzo Nishioka, Project Leader of the IGES Climate Change Project (IGES-CC), made an introductory speech on sustainable development, taking countermeasures on global warming as an example in the Group One session. Prof. Osamu Abe, Project Leader of the IGES Environmental Education Project (IGES-EE), made a presentation on environmental education in Asia and the Pacific. It was agreed at the forum to hold the Global 500 Forum on a periodic basis in various nations and regions in the world in order to provide further opportunities for information exchange and discussions among multiple stakeholders.

3. Prospects

IGES will continue its research activities on sustainable development in Asia and the Pacific



IGES Welcome Luncheon (MCED 2000)

through, for example, conducting the ECO ASIA Long-term Perspective Project, and continuing efforts to disseminate the outcomes to ECO ASIA and other major international conferences in preparation for the World Summit on Sustainable Development.

As for the ECO ASIA LTPP, its second phase research activities that began in 1998 will be completed in 2001. IGES is now preparing the comprehensive final report of the LTPP for ECO ASIA 2001, scheduled for October 2001, incorporating the research outcomes of the first phase of IGES's strategic research activities (FY1998-FY2000). The report will consist of analysis on the current status and policy options for sectoral environmental issues, such as climate change, urban environment, forest resources, biodiversity resources, freshwater resources and environmental education, and cross-cutting issues with the framework of Environmental Governance and New Development Patterns Projects, as well as inter-linked aspects, such as population, urbanization, poverty, economic trends, technological development and transfer of environmentally sound technology, environmental consciousness, and lifestyle changes.

Additional target events include the United Nations preparatory processes for WSSD, such as the Sub-Regional Preparatory Committee meetings (a total of five meetings) that will start in May 2001, and the Regional Preparatory Committee meeting, scheduled for November 2001 in Phnom Penh, Cambodia. IGES will prepare information on the state of the environment, a review of the implementation of Agenda 21, and recommendations for actions to be taken in the region, and disseminate them to a wide range of stakeholders.

(Takashi Otsuka)

B. Contribution to the Establishment of International and Domestic Measures

1. Contribution to COP-6

1) Background

The Kyoto Protocol, adopted at the end of 1997 at the Kyoto conference on climate change, fixed quantified targets for greenhouse gas emissions in developed countries. At the same time, the so-called Kyoto Mechanisms, which utilize the functions of markets to limit emissions, were introduced. They include emissions trading, joint implementation and the Clean Development Mechanism (CDM). The rules and modalities for the Kyoto Mechanisms were to be finalized at the Sixth Conference of Parties of the United Nations Framework Convention on Climate Change (COP-6) at The Hague in the Netherlands in November 2000. This meant that the Hague Conference ranked as an event matching the importance of the Kyoto Conference in 1997. However, as no common agreement was reached, it was decided that COP-6 would reconvene in Bonn in July 2001.

2) Contribution of IGES

The CC Project at IGES created concrete policy proposals in fiscal year 2000 for rules and modalities, particularly relating to the Kyoto Mechanisms, as it had previously done for the Kyoto Protocol itself. The project focused on the problem of how to standardize CDM baselines. Issues included establishing various systems of the three mechanisms as well as problems such as supplementarity, compliance, and financing to implement the projects.

IGES disseminated its research results and made proposals for rules in discussions with conference participants, alongside researchers, as a special event at the Conference of Parties and Subsidiary Bodies meeting for the formal negotiation process of the Framework Convention on Climate Change.

IGES made presentations at the Special Event of Subsidiary Bodies 12 (SB12) at Bonn in June 2000 on "Options for Baseline Methodologies," along with Pacific Consultants and NEDO, regarding problems concerning baselines for CDM projects. Both NEDO and Pacific Consultants acted as the secretariats of committees to discuss these problems for Japan's Ministry of International Trade and Industry, and the Environment Agency, respectively (official Ministry and Agency names have since changed). Dr. Naoki Matsuo, Senior Research Fellow of IGES,

belongs to both committees, and planned this special event to disseminate statements from Japan concerning on these topics. Dr. Matsuo coordinated both parties, and in the form of independent proposals, suggested concrete examples of methods to standardize the baselines from a project-specific approach.

At the special event of the SB13 Part 1, held in Lyon in September 2000, IGES presented research results under the theme of "Issues and Options for Investing in the CDM." The presentations were entitled "Barriers to the CDM Investment and Possible Public Supporting Measures," by Aki Maruyama; "Macro Economic Impact of Financial Transactions between Two Countries," by Tae Yong Jung and Shinji Kaneko; and "Additionality of Private Sector CDM and Standardized Baselines" and "Proposals for Prompt Start of Annex I - Annex I Emission Reduction Projects," both by Naoki Matsuo.

At COP-6, held in The Hague in November 2000, there was a different approach to the issue. Under the theme of "Cooperation and Competition for Implementation of the Kyoto Regime" for the purpose of developing the Regime in the future, the question of which standpoints are important was discussed from a wide range of viewpoints. These ranged from the short-term perspective, which relates to implementation of the rules of the Kyoto Mechanisms and establishing domestic policy measures, to the long-term scale of a hundred years, and the issue of competitive relations, which characterize the Kyoto Mechanisms from the perspective of international cooperative relations.

Following a keynote speech by Dr. Matsuo, Professor Morishima of IGES chaired discussions with specialists active in the field of climate change and various specialties in a number of countries. Renowned scientists and market



IGES Seminar at COP-6

specialists who have contributed to the IPCC and leaders of the negotiations participated in the discussions. Although they covered an extremely wide range of themes, the result of the meeting was a strong message that highly effective measures on the issue of global warming may be realized by formulating a system and selecting options that maximize the best features and mutual benefits.

In this way, since COP-4 in Buenos Aires, IGES has disseminated its research results in the form of special events each year, as it did at COP-6, and has become internationally renowned as a base of climate change policy research.

2. Discussions on the Ideal Domestic Policy Measures

1) Background:

Major themes of the IGES Climate Change Project include not only international mechanisms, but also the international framework that implements them, as well as the establishment of domestic systems in each country. Japan, where IGES was founded, is notable for its large economy among the developed countries, the large quantity of its emissions, and its high level of energy efficiency. Japan is also a large potential investor for CDM and JI projects. Therefore, the manner in which Japan elaborates its domestic policy measures and establishes incentives to apply the Kyoto Mechanisms will be significant, in terms of the global objective of reducing greenhouse gas emissions.

2) Contribution of IGES

Prior to the Kyoto Conference, few open discussions and proposals existed relating to domestic policy measures. Discussions on this topic had been led predominantly by government officials. Taking this into consideration, IGES decided to provide policy proposals based on its own research, and at the same time, provide a forum to discuss policy measures. Under Project Leader Professor Nishioka, IGES held an open forum to stimulate broader participation and interest in the topic. Also supporting this forum were Professor Morishima (Chair of the Board of Directors), Professor Akihiro Amano (Kwansei Gakuin University), and Shinji Fukawara (Chief Executive Officer, Institute for Human Studies, Dentsu Institute for Human Studies).

The Open Forums were held seven times from January to July 2000 and specialists in various

fields made diverse proposals. The discussions found agreement on the following themes:

- Combining multiple policy measures
- Efficiency of technological development to save energy and reduce CO2 emissions
- Necessity of lifestyle changes
- Limits of reducing emissions in Japan
- Neutrality of tax revenue in taxation-related measures
- Necessity of reducing taxes for sectors with larger burdens
- Promoting a wide range of new energy sources

In contrast, points which displayed differences of opinion included:

- Methods on implementing the Kyoto Mechanisms
- Effects of reducing emissions
- Sharing the reduction between sectors
- Economic efficiency
- Equity

Dr. Matsuo presented proposals regarding a portfolio of various policy measures. Of these, one system of emissions trading, viewed by the Keidanren (the Japan Federation of Economic Organizations) as a basis for voluntary action plans, was considered to be a realistic option by the Central Environment Council and the Industry Structure Council. The Open Forums enabled all sectors of society to have a free exchange of opinions and participate in the discussion process. As a result, to some extent, this initiative was a success.

It is necessary for stakeholders to exchange proposals and opinions publicly at the earliest possible stage about policies for which all sectors of society must take responsibility, such as the problem of global warming. However, as mentioned, in the past decisions were often made by policy-makers alone, without sufficient explanation to other sectors of society.

This series of discussions clarified scientifically and in detail some of the domestic issues relating to global warming. It also identified for the public the issues that need further discussion and those on which some agreement already exists. From the perspective of integrating the results of discussions by stakeholders into the policy-making process, this series of forums has revealed an effective approach for future meetings, not only on global warming policies, but in other policy areas as well.

(Naoki Matsuo)

C. The 9th Northeast Asian Conference on Environmental Cooperation

Since its inauguration in 1992, the Northeast Asian Conference on Environmental Cooperation (NEAC) has provided a forum for frank discussion on environmental issues, policies and cooperation between environmental government organizations and local governments, specialists and NGOs in Northeast Asia, together with international organizations such as UN/ESCAP and UNEP. Considering that there was no significant multilateral framework for cooperation on environmental issues in Northeast Asia until the first NEAC in 1992, it can be regarded as a pioneer of multilateral environmental cooperation in this sub-region.

The 9th Northeast Asian Conference on Environmental Cooperation (NEAC) was held from 26 to 28 July 2000 in Ulaanbaatar, Mongolia. The 2000 conference was attended by delegations from environmental government organizations, local governments, specialists and NGOs from countries in Northeast Asia (China, Japan, Republic of Korea, Mongolia and Russian Federation). Representatives from UN/ESCAP, UNEP and the UNDP also participated in the conference.

Four critical environmental issues in Northeast Asia were discussed at NEAC 2000.

- 1) Forest protection and afforestation
- 2) Water contamination and purification
- 3) The extension of the network of special protected areas and capacity building
- 4) Review and the future of environmental cooperation in Northeast Asia

The IGES Environmental Governance Project participated in the conference, and presented a paper on "The Review and Future of Northeast Asian Environmental Cooperation." In the presentation, project members provided an overview of major multilateral environmental

programmes and initiatives in Northeast Asia, together with those of the Asia-Pacific region as a whole, and provided an analysis on the major features of environmental cooperative frameworks in Northeast Asia. For example, they pointed out that several multilateral initiatives were established through different channels in the 1990s with little coordination among them, which result in considerable overlap and redundancy.

Based on this analysis, the IGES members presented ideas on how to overcome some of the difficulties with promoting environmental cooperation in Northeast Asia, and recommended two options for a collaborative framework. They also identified two options for the possible future role of the NEAC. In conclusion, Project Leader Prof. Kato, one of the originators of the NEAC, expressed his personal, comprehensive observations and suggestions for advancing cooperation on environmental issues. The highlights of his comments were as follows:

- * De-emphasize the role of Japan as the predominant financier and promoter of bilateral environmental programs and projects in the sub-region.
- * At the same time, more Japanese support should be directed towards sub-regional, multilateral programs and mechanisms.
- * We are very much encouraged by, and strongly support, the Republic of Korea's (ROK) leadership and various initiatives in taking the sub-regional/multilateral approach to environmental cooperation in Northeast Asia.
- * The NEAC should become a truly open, transparent and comprehensive forum/process for promoting cooperation and partnership among environmental authorities, private sector businesses, civil society organizations, and research/academic communities.
- * The NEAC should NEVER become a project-based or project implementation mechanism.

Based on the presentations made by each country representative together with IGES, participants in the conference exchanged views on the NEAC's achievements, roles, objectives and future prospects. Taking into consideration that the sub-region of Northeast Asia needs to forge



mutually beneficial linkages with several existing and ongoing environmental cooperative initiatives, the conference participants agreed to set out new directions and principles of the NEAC by adopting the "Framework of the NEAC." The Republic of Korea together with Mongolia will take the initiative in developing the framework.

Outline of the Conference

Date: 26-28 July 2000

Venue: Chinggis khaan hotel,
Ulaanbaatar, Mongolia

Organized by: Ministry of Nature and
Environment, Mongolia

26 July

Opening Ceremony:

Opening Address

S. Banzragch (State Secretary, Ministry of
Nature and Environment, Mongolia)

Keynote Speeches:

Session 1

"Forest Protection and Afforestation"

Session 2

"Water Contamination and Purification"

27 July

Session 3

"Extension of Network of the Special
Protected Areas and Capacity Building"

Session 4

"Review and Future of the Northeast Asian
Environmental Cooperation"

28 July

Plenary Session:

Adoption of Chairperson's Summary

(Wakana Takahashi)

VI. Workshop and Symposium

A. International Workshop on the Socio-economic Assessment for the CDM and Other Kyoto Mechanisms

IGES and the UNEP Collaborating Center on Energy and the Environment (Denmark) jointly held the "International Workshop on Socio-economic Assessment for the CDM and Other Kyoto Mechanisms" on 15 and 16 March 2001 at the Xindadu Hotel in Beijing. Forty people attended, including climate policy researchers and specialists from a number of institutes, as well as policy-makers in China and public participants of concerned organizations. The participants actively discussed issues related to climate policy, focusing on the Kyoto Mechanisms-particularly the Clean Development Mechanism (CDM)-and China.

At the workshop, discussions on the reports from researchers took place in three sessions: Issues on Framework Convention on Climate Change - focusing on the Kyoto Mechanisms, Policies & Measures on Climate Change, and a panel discussion. In the first session, discussions focused on issues related to the on-going international negotiations, such as influences on the scale of the CDM marketplace, barriers to project implementation in China, and the construction of a framework for the implementation of the CDM in China. Key issues were clarified relating to achieving sustainable development using the CDM-an increasingly important topic in China. The second session included presentations on energy-saving and technology transfer schemes in Japan, the economic impacts of energy transfers in Chile, and the potential for renewable energy in China. There was also an active discussion regarding the influence of foreign direct investment on economic growth and the environment. Reflecting these views, the ensuing panel discussion stressed the necessity of opportunities for the cost-effective reduction of greenhouse gases in China, and policy measures to this end.

It was also acknowledged that a common awareness is increasingly important in order to promote collaborative research towards the evaluation of the socio-economic impacts of the Kyoto Mechanisms, particularly the CDM.

The Climate Change Project (which changed its name to the Climate Policy Project in fiscal year 2001) started with organizing a series of



workshops called 'Climate Policy Dialogue' in its first phase. The workshop reported here is the first to be held in the second phase.

This series of workshops aims to facilitate the exchange of views and opinions among researchers from developed and developing countries and policy-makers from developing countries mainly in Asia, regarding climate change, in order to deepen mutual understanding through the dissemination and discussion of research results and future research cooperation. In the future, similar workshops will be planned in the countries, including India, Korea, and Thailand.

(Aki Maruyama)

Outline of the workshop

Date: 15-16 March 2001

Venue: Xindadu Hotel, Beijing, China

Session 1

"Issues on Framework Convention on Climate Change - focusing on the Kyoto Mechanisms"

Chair: Myung-Kyoon Lee (UNCCEE, Denmark)

Presentations by: Erik Haites (Margaree Consulting, Canada)
Aki Maruyama (IGES)
Lui Deshun (Tsinghua University, China)
Kim Olson (UNCCEE, Denmark)

Session 2

"Policies & Measures on Climate Change"

Chair: LiJunfend (ERI, China)

Presentations by: Naoki Matsuo (IGES)
Peng Ximing (Electricity Power Research Center, China)
Jorge Rogat (UNCCEE, Denmark)
Shi Han (Clean Technology Center, China)
Myung-Kyoon Lee (UNCCEE, Denmark)

Session 3

Panel discussion

Chair: Shuzo Nishioka (IGES)

Panelists: Myung-Kyoon Lee (UNCCEE, Denmark)
Jorge Rogat (UNCCEE, Denmark)
Naoki Matsuo (IGES)
Tae Yong Jung (IGES)
Erik Haites (Margaree Consulting, Canada)
Zhu Li (ERI, China)
Zhou Ji (Ren Min University, China)
Lin Drda (Chinese Academy for Agriculture, China)
Madam Hu Xiulian (ERI, China)

B. The MCED (ESCAP)/ECO ASIA 2000 Pre-Symposiums

During a series of six MCED (ESCAP)/ECO ASIA 2000 Pre-Symposiums held from February to August 2000, participants from the public and private sectors and a number of related organizations deepened their understanding of environmental problems and discussed strategies to develop solutions. The results and achievements of the symposiums were reported at the UN/ESCAP Ministerial Conference held from 31 August to 5 September.

Outline of the MCED (ESCAP)/ECO ASIA 2000 Pre-Symposiums

1st Pre-Symposium

Date: 17 February 2000
Venue: Kitakyushu University
Participants: 150
Theme: "Realization of Material Recycling Societies: Current Issues and Future Perspectives in China, Japan, and Korea"

Panelists:

Wei Wang (Tsinghua Univ., China)
Nam-Hoon Lee (Anyang Univ., Korea)
Masao Ukita (Yamaguchi Univ.)
Ryota Shinohara (Prefectural Univ. of Kumamoto)
Kazuo Matsushita (IGES)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: Participants discussed future trends and new development strategies for East Asia in terms of waste treatment and infrastructure development, in order to create "recycling societies" that minimize environmental impacts and promote material recycling. The meeting explored frameworks for policies to create recycling societies.

2nd Pre-Symposium

Date: 8 March 2000
Venue: Kitakyushu International Conference Center
Participants: 80
Theme: "Public-Private Partnerships for Urban Environmental Infrastructure Improvement"

Panelists:

Hitoshi Ikuma (Center for the Strategy of Emergence, The Japan Research Institute Ltd.)
Toshihiko Kinoshita (Japan Economic Research Center)
Ryuichi Murano (Japan Environmental Consultants Ltd.)
Takeshi Katsuhara (Toua Univ.)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: Participants recognized private finance initiatives (PFI) as an innovative approach to infrastructure development and examined a possible PFI model tailored to the situation in Asian countries. Particular reference was given to U.S. examples, viewed as successful cases of administrative and financial restructuring and market development. Participants also considered the roles of public and private sectors, promoting infrastructure development and the future direction of public-private partnerships.

3rd Pre-Symposium

Date: 16 March 2000
Venue: Kitakyushu International Conference Center
Participants: 70
Theme: "Environmental Challenges for Cities in East Asia: Current Issues and Future Perspective"

Panelists:

Members of China Council
Masao Ukita (Yamaguchi Univ.)
Takeshi Katsuhara (Toua Univ.)
Peijun Shi (Beijing Normal Univ.)
Dan Hun (Chinese Academy of Sciences)
Guang Xia (Sino-Japan Friendship Center for Environmental Protection)
Deok Ho Cho (Kyong Ju Univ.)
Hoi Seong Jeong (Korea Environment Institute)
Mohamad Soerjani (Indonesia National Research Council)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: Members of the China Council, an international committee for development and the environment were invited to this session. Participants were informed of the results of the IGES Urban Environmental Management research project and discussed the future direction of urban environmental management in East Asia.



3rd Pre-Symposium

4th Pre-Symposium

Date: 25 May 2000
Venue: Kitakyushu International Conference Center
Participants: 450
Theme: "Future City of Environment and Information"

Panelists:

Shuzo Nishioka (Keio Univ.)
Toshikazu Matsuoka (City of Kitakyushu)
Miyoko Morofuji (Junior Eco-Club)
Toru Nakagawa (NTT DATA Co.)
Ippei Hagiwara (NTT DATA Institute of Management Consulting, Inc.)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: The Most advanced information technologies such as high resolution satellites, were introduced and possible applications and advantages of those technologies for urban environmental management.



4th Pre-Symposium

5th Pre-Symposium

Date: 17 June 2000
Venue: Kitakyushu Commerce and Trade Center
Participants: 200
Theme: "Creation of Environmentally Symbiotic City in a Resource-filled Society"

Panelists:

Masasuke Nakata (Kyushu Office, Urban Development Corporation)
Hisato Okamoto (Frontier of Socio-Science Study Group)
Yoriko Abiru (Kitakyushu Junior Chamber, Inc.)
Akio Hayashi (Japan Steel Federation)
Koichiro Akimoto (Japan Industrial Location Center)
Katsuki Kuroda (Architect)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: Participants widely recognized that the reuse, reduction and recycling of materials, resources and energy are important for the creation of an environmentally symbiotic city. Based on this premise, participants considered a desirable model of urban planning.

6th Pre-Symposium

Date: 2 August 2000
Venue: Kitakyushu International Conference Hall
Participants: 75
Theme: "Inter-City Networks for International Environmental Cooperation"

Panelists:

Masakazu Ichimura (ESCAP)
Seiji Ikkatai (Environment Agency, Japan)
David Risstrom (ICLEI)
Kiyoshi Isaka (Kyushu International Center, JICA)
Naoki Mori (JBIC)
Wang Zhongyan (Environmental Protection Bureau, Dalian City)
Dao Van Luong (Ho Chi Minh City)
Koichi Sueyoshi (Mayor, City of Kitakyushu)
Yoichi Ishii (City of Yokohama)
Yoshinori Kitaguchi (Hiroshima City)
Akio Morishima (Chair, Board of Directors, IGES)
Hidefumi Imura (IGES Kitakyushu Office)

Summary: The scheme of inter-city networks for tackling environmental problems was considered to provide insight for the ESCAP Ministerial Conference. The report from this symposium was provided to participants in the Ministerial Conference.

(Osamu Norimatsu)

C. Policy Dialogue Workshops / The Fourth IGES International Workshop on Forest Conservation Strategies in Asia-Pacific

The Forest Conservation Project held Policy Dialogue Workshops from June to September 2000 about investigations in three countries for the purpose of devising policy proposals in forest conservation. Government officials, researchers, and NGO representatives from the targeted countries were invited. Through 'bottom-up' processes, discussions were aimed at drafting the elements for forest conservation that IGES had presented, and drafting policy recommendations for sustainable forest management.

Discussions in each workshop were based on the situations in each region, and meaningful results were obtained about practical schemes for policy proposals. In addition, the co-organizers of the workshop series agreed to continue the collaboration into the second phase, and based on these discussions, policy recommendations were drafted. The "Fourth International Workshop on Forest Conservation Strategies in Asia-Pacific" was held on 17 January 2001 at Tokyo University to develop more practicable and feasible policy recommendations.

1. Policy Dialogue Workshops

1) Workshop in Jakarta

Date: 27, 28 June 2000
Venue: Indonesian Institute of Sciences, Jakarta, Republic of Indonesia
Organized by: IGES and Indonesian Institute of Sciences
Participants: Individuals connected with forestry departments in Indonesia and the Philippines, representatives from local NGOs, and others related to the Japan International Cooperation Agency (JICA) (about forty participants)

Summary: Comments were based on the situations in Indonesia and the Philippines, regarding the draft of elements for forest conservation strategies that IGES presented. In particular, the primary causes of the destruction of forests in the regions concerned, and suggestions and opinions for the revision of the Policy Recommendations for Participatory Forest Management were raised, making it possible to re-examine the draft for forest conservation strategies.

2) Workshop in Vientiane

Date: 2, 3 August 2000
Venue: National University of Laos, Vientiane, Lao People's Democratic Republic
Organized by: IGES and the National University of Laos
Participants: Individuals connected with departments of agriculture and forestry in the governments, universities and NGOs in Lao PDR and Vietnam, and the forestry sector in Cambodia (about 40 participants)

Summary: Comments were based on the situations of Laos and Vientiane, regarding the draft of elements for forest conservation strategies presented by IGES. In particular, opinions and suggestions were raised on the revision of each country's strategies for participatory forest management in the relevant regions, and the draft of forest conservation strategies was re-examined.



3) Workshop in Khabarovsk

Date: 19-21 September 2000
Venue: Economic Research Institute, Russian Academy of Sciences, Far Eastern Division, Khabarovsk, Russian Republic
Organized by: Khabarovskiy Krai Administration, the Economic Research Institute, the Far Eastern Representative of the World Wildlife Fund, IGES, the Forest Trends (USA), the Far Eastern Forestry Research Institute, Friends of the Earth Japan, Ecodal (local environmental NGO)
Participants: Individuals connected with the forestry sector that centers around the state of Khabarkovsk, and participants from groups (Japan, China, U.S.) who are developing forest conservation research and activities in the Far East of Russia (about 70 participants)

Summary: Comments obtained were based on the situation in the Russian Far East regarding the draft of elements for forest conservation strategies submitted by IGES. In particular, instructive suggestions regarding the main structural causes of the destruction of forests were collected, and it was decided that participants would continue to re-examine the draft for forest conservation strategies in the relevant regions.

2. The Fourth International Workshop on Forest Conservation Strategies in Asia-Pacific

Date: 17 January 2001
 Location: Yayoi Auditorium at the University of Tokyo
 Organizer: IGES Forest Conservation Project
 Sponsor: Ministry of the Environment, Global Environmental Forum

Summary: IGES Forest Conservation Project (FC Project) examined measures to conserve forests by elaborating on results clarified and identified during three years of research activities, and developed draft policy recommendations to implement them legally and administratively. In order to examine the policy recommendations, the "Fourth IGES International Workshop on Forest Conservation Strategies for Asia-Pacific" was organized by the FC Project on 17 January 2001 at Tokyo University. Together with the workshop, an open seminar entitled "Steps Toward Sustainable Forest Management in Asia-Pacific" was organized. Concerned authorities, companies, NGOs, and the general public were invited in order to disseminate the FC Project results. Participants broadly discussed the possible research activities of the FC Project in its second phase and presented many constructive suggestions.



Outline of Open Seminar -Toward a Sustainable Forest Management in Asian Countries -

Date: 17 January 2001
 Venue: Tokyo University
 Organized by: IGES Forest Conservation project

Presentation on the first-phase research results (1998-2000) by IGES Forest Conservation Project
 Hiroji Isozaki (Project Leader of Forest Conservation Project, IGES)

Comment for the first phase research results by IGES Forest Conservation Project

Ma Hwan Ok (Projects Manager, Division of Forest Industries, International Tropical Timber Organization (ITTO))

Xeme Samounry (Director, Department of Forestry/ Lao P.D.R.)

Simon G. Devung (Director, Center for Social Forestry (CSF)/ Indonesia)

An outline of the second-phase activities (2001-2003) by IGES Forest Conservation Project

Makoto Inoue (Sub-Project Leader of Forest Conservation Project, IGES)

Panel Discussion: "Experiences in Promoting the Participatory Forest Management"

Chair: Akio Morishima (President, IGES/ President, Central Environment Council)

Presentations by Panelists: The panelists provide each organization's/ government's experiences in the activities related to community forestry.

Efransjah (Projects Manager, Division of Reforestation and Forest Management, International Tropical Timber Organization (ITTO))

Mafa Chipeta (Deputy Director General, Center for International Forestry Research (CIFOR))

Tachrir Fathoni (Forestry Attache, Embassy of the Republic of Indonesia to Japan)

Yoshiaki Kano (Managing Director, Forestry and Natural Environment Department, Japan International Cooperation Agency (JICA))

Martinus Nanang (Research Fellow, IGES)

Discussions

(Kiyoshi Komatsu, Kimihiko Hyakumura)

D. Workshop on Evaluation of Environmental Education Activities

Recently, issues around how to evaluate environmental education activities are growing as the number of these practices and activities continue to increase. Therefore, it is necessary to establish an appropriate evaluation method to make the results of these practices and activities clear in order to use them effectively in the future. Taking these points into consideration, the IGES Environmental Education Project organized the "Workshop on Evaluation of Environmental Education Activities" at Shibuya Mark City, Tokyo, on 18 December 2000.

This workshop included a report of research findings obtained by the IGES Environmental Education Project in its first phase, and an examination of current evaluation activities at various levels of education. Discussions were also held in order to develop new themes. The workshop emphasized the evaluation of project management, as well as the evaluation of learning by "learners."

About twenty experts involved in evaluation activities in different fields attended the workshop, such as environmental education, psychology, outdoor education, school education, extra-curricular activities by NGOs, project management, and educational development. A background paper sent to the participants prior to the workshop served as a basis for discussions.

This workshop contributed to the exchange of information about evaluating environmental education activities. Methods to improve environmental education evaluation activities were examined. As a result of discussions, participants were able to develop common points of understanding, to recognize current issues and problems, and to identify a future course of action in the evaluation field.

It is very important to exchange opinions from different fields and regions in order to improve

the evaluation activities of environmental education. The workshop contributed towards the quantitative development and qualitative improvement of environmental education.



Outline of Workshop

Report:

Date: 18 December 2000

Venue: Shibuya Mark City, Tokyo

"Examination of Evaluation on Environmental Education and Educational Activities"

Ko Nomura (IGES)

Presentations:

"Evaluation of Project Management"

Yuriko Minamoto (Consultant of International Development)

"For the Promotion of Global Attitude and Local Action, the View from Psychology"

Yukio Hirose (Nagoya University)

"Evaluation of Environmental Education Activities in Schools and Communities"

Tomohide Banzai (Saitama University)

"Evaluation of Environmental Education"

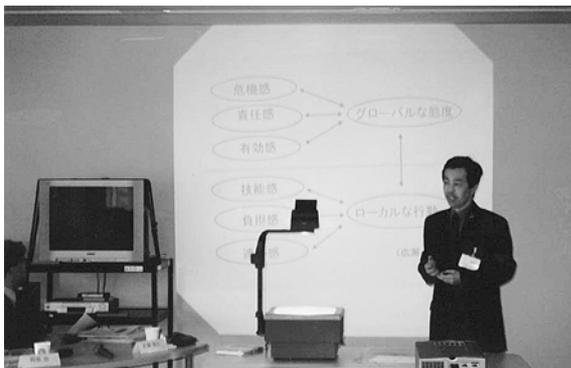
Naoko Kakuta (ERIC)

"Evaluation of Environmental Literacy in Outdoor Education"

Taito Okamura (Nara University of Education)

Wrap-up Discussion:

Moderator: Osamu Abe (IGES/Saitama University)



(Masahiro Takahashi, Masahisa Sato)

E. Open Symposium: "Asian Environment and Development in the 21st Century"

IGES held an open symposium entitled "Asian Environment and Development in the 21st Century," in collaboration with the Asian Development Bank (ADB) in the Plaza Hall of the Kasumigaseki Building, on 21 September 2000 with more than 100 participants attending.

The aim of the symposium was to discuss the solutions to cope with environmental problems in the Asian region, which is experiencing rapid economic and population growth that will affect environmental problems on a regional as well as a global level.

At the symposium, three keynote speeches were delivered: "Introduction of the Asian Environment Outlook/Draft Environmental Policy" by S. Tahir Qadri, Senior Environment Specialist of the ADB; "Summary of the Results of ECO ASIA and ESCAP" by Kazuaki Hoshino, the Environment Agency of Japan; and "A New Sustainable Development Trajectory for the Asian Region" by Kazuo Matsushita, Acting Vice President of IGES. After the keynote speeches, Wakako Hironaka of the House of Councilors, Tsutomu Tanaka from Chuo University, Satoru Matsumoto of Mekong Watch, and Tae Yong Jung of IGES joined the panel discussion.

The discussion was based on the results of the ECOASIA/ESCAP meeting held on 4 and 5 September 2000 at Kitakyushu City, and the Asian Environmental Outlook drafted by the ADB. The discussion identified the following tasks for the future:

- 1) enhance transparency and openness of information;
- 2) promote capacity-building of local governments in order to meet their expanding roles;
- 3) promote technology transfers by developed countries;
- 4) improve systems for enabling NGOs to play a more active role in policy-making processes; and
- 5) take an integrated approach to development, poverty alleviation, finance, security, and environmental policy.

A collaborative relationship between IGES and the ADB was established through the preparatory process for organizing the symposium.

Outline of the Symposium

Date: 21 September 2000

Venue: The Kasumigaseki Building, Tokyo

Keynote Speeches:

"Introduction of the Asian Environment Outlook/ Draft Environmental Policy"

S. Tahir Qadri (Senior Environment Specialist, ADB)

"Summary of the Results of ECO ASIA and ESCAP"

Kazuaki Hoshino (Senior Advisor to Director General, Global Environment Department, Environment Agency of Japan)

"A New Sustainable Development Trajectory for Asian Region"

Kazuo Matsushita (Acting Vice President, IGES)

Panel Discussion:

Coordinator: Kazuo Matsushita (Acting Vice-President, IGES)

"What kind of role should each actor play for improving the environment in the Asian region?"

"What kind of system is required for each actor to play its role?"

Panelists:

Wakako Hironaka (Parliamentarian, the House of Councilors)

Tsutomu Takana (Professor, Chuo University)

S. Tahir Qadri (Senior Environmental Specialist, ADB)

Kazuaki Hoshino (Senior Advisor to Director General, Global Environment Department, the Environment Agency of Japan)

Tae Yong Jung (Research Fellow, IGES)



(Rie Watanabe)

F. 2nd Policy Dialogue between Japan and Germany for Facilitating Coordinated Measures to Address Global Warming: International Climate Policy and the IT Sector

IGES held the “2nd Policy Dialogue between Japan and Germany for Facilitating Coordinated Measures to Address Global Warming,” with the Wuppertal Institute for Climate, Environment and Energy, in Wuppertal, Germany on 13 and 14 November 2000. The theme of the workshop was “International Climate Policy and the IT Sector.”

The goal of the workshop was to offer industry representatives, researchers, and government officials an opportunity to exchange information and ideas on technologies and policies that have become increasingly important today in the digital era in terms of their impact on the environment. It was also intended as a forum for industry and government representatives to facilitate a constructive dialogue on a policy framework that can support industry’s efforts on global warming.

The workshop consisted of five sessions: GHG Emission Trends of the Internet; Return, Reuse and Recycling of IT-Products; Towards Higher Energy Efficiency of IT Products; Eco-labeling and Green Procurement Schemes for IT Products; and What is the Demand for Policy Coordination? It included active discussions based on discussion papers.

In the session “GHG Emission Trends of the Internet,” it was reported that the annual electricity consumption of Internet use in Germany in 2000 added up to about 4.2 billion kWh, accounting for a little less than 0.3 percent of total German CO₂ emissions. Although this figure remains small today compared with the total, it was estimated that anticipated further use of the Internet had the potential to dramatically increase GHG emissions. It was also estimated that, under the assumption that current levels of technologies and efficiencies do



not change, the figure might rise to 2.5 percent, but might stay around 1 percent if effective policies such as enhancing the energy efficiency of devices for Internet use were put into practice.

In the session “Return, Reuse and Recycling of IT Products,” it was pointed out that the frequent model changes of personal computers (PCs) was contributing to the prevention of a wider prevalence of reuse. An expectation was expressed that a new service to upgrade PCs would help in increasing more reuse practices.

In the session “Towards Higher Energy Efficiency of IT-Products,” it was pointed out that the widely prevailing International Energy Star Program had established a standard for the low power mode of PCs only, and emphasized the importance of improving the energy efficiency of the on-mode.

In the session “Eco-labeling and Green Procurement Schemes for IT-Products,” it was pointed out that the certification process takes too long time to follow rapidly developing IT technologies products. As for green procurement schemes for IT products, a special emphasis was put on the need of policies to change consumers’ behavior, as well as producers’ purchasing patterns.

In the final session, “What is the Demand for Policy Coordination?” it was confirmed that better coordination between industry and government was necessary in order for the IT industry to make a significant contribution towards the implementation of the Kyoto Protocol.

The workshop was identified as a first step research focused on the direct impact of the digital revolution on the environment. IGES and the Wuppertal Institute agreed that it was



important to continue cooperating on research and exchanging information and ideas.

The Wuppertal Institute and IGES presented the results of the workshop at a COP-6 special event, jointly organized by both organizations on 23 November 2000. The workshop report has already been made available in English, including a summary report of the discussions and related papers.

Outline of the workshop

Date: 13, 14 November 2000

Venue: Wuppertal Institute for Climate, Environment and Energy, Wuppertal, Germany.

Organized by: IGES, Wuppertal Institute for Climate, Environment and Energy

Discussion Themes:

"GHG Emission Trends of the Internet"

"Return, Reuse and Recycling of IT Products"

"Towards Higher Energy Efficiency of IT Products"

"Eco-labeling and Green Procurement Schemes for IT Products"

"What is the Demand for Policy Coordination?"

Participants:

Takaharu Gamo (Matsushita Electric Industrial Co., Ltd.)

Takeshi Koga (Fujitsu Limited)

Shiro Nishi (Nippon Telegraph and Telephone Corporation)

Hidemi Tomita (Sony Corporation)

Koji Yamaguchi (NEC Corporation)

Masaharu Yagishita (National Environment Training Institute)

Prof. Akio Morishima (IGES)

Kazuo Matsushita (IGES)

Shinichi Arai (IGES)

Dr. Tae Yong Jung (IGES)

Shuzo Katsumoto (IGES)

Thomas Forth (Bundesministerium für Umwelt)

Val Herman (ICL Belgium)

Dr. Tiny Huijben (Océ-Technologies B.V.)

Kai Kramer (Electrocycling GmbH)

Elmar Nolte (Elsa AG)

Kurt Schiwy (Deutsche Telekom AG)

Sylvio Weeren (IBM Informationssysteme Deutschland GmbH)

Dr. Ferdinand Quella (Siemens AG)

Prof. Peter Henicke (Wuppertal Institute)

Hermann E. Ott (Wuppertal Institute)

Thomas Langrock (Wuppertal Institute)

Thomas Dworak (Wuppertal Institute)

Stefan Lechtenböhmer (Wuppertal Institute)

Stefan Thomas (Wuppertal Institute)

(Shuzo Katsumoto)

G. Study Group on the Information Technology (IT) Revolution and the Environment

In October 2000, IGES launched the "Study Group on IT Revolution and the Environment" as a joint research project with the Environmental Management Forum, Nikkei Business Publications, Inc. The aim of this study group is to explore how the information technology revolution changes economic activities, the lifestyles of individuals, and social structures, as well as how IT can be used to save energy and reduce resource consumption.

The study group consists of ten experts from academia, industry, and research institutes and individuals from IGES and Nikkei Business Publications. The group will meet monthly for the next one to one-and-a-half years. In the fiscal year 2000 the following two meetings were organized.

First Meeting

Date: 20 December 2000 18:30-20:30
Venue: Nikkei Business Publications, Inc.

1. Opening
2. presentation on major discussion results, evaluation, and the prospects of COP-6
Kazuo Matsushita(IGES)
3. Presentation of the motivation and goals of the study group "Expectations for IT for the Environment"
Prof. Tadahiro Mitsuhashi
(Professor of Chiba University of Commerce)
4. Report on the "2nd Policy Dialogue between Japan and Germany for Facilitating Coordinated Measures to Address Global Warming: International Climate Policy and the IT-Sector"
Shuzo Katsumoto(IGES)
5. Discussion

After introductions, Kazuo Matsushita, Acting Vice President of IGES, made a presentation on major discussion results, evaluation, and the prospects of COP-6. He stated that the government and political establishment had not been able to respond adequately to messages from scientists, and that global environmental negotiations were different in nature from economic and trade talks.

Shuzo Katsumoto, IGES Research Associate,

then reported on the "2nd Policy Dialogue between Japan and Germany for Facilitating Coordinated Measures to Address Global Warming: International Climate Policy and the IT-Sector," which was co-organized by IGES and the Wuppertal Institute for Climate, Environment and Energy.

Prof. Tadahiro Mitsuhashi, Professor of Chiba University of Commerce and chair of the study group, explained the motivation and goals of the study group, and made a presentation titled "Expectations for IT for the Environment." Prof. Mitsuhashi argued that society has been changing from a manufacturing industry-centered industrial society to a service/software industry-centered post-industrial society, and that the production of digital goods has markedly increased in today's society. He pointed out that the IT revolution could contribute to environmental protection through, for example, promoting on-demand production. On the other hand, he observed that it also could have negative impacts on the environment through, for instance, bringing about a rapid increase of disposable products produced by frequent model and design changes.

Based on these three presentations, participants actively discussed issues relating to IT and the environment, such as efforts by corporations to create paperless offices and regulations preventing the use of technologies for saving energy. The meeting provided a good opportunity for participants to exchange their basic knowledge and understanding.

Second Meeting

Date: 23 January 2001 18:00-20:15
Venue: IGES Tokyo branch

1. Opening
2. Presentation
"Cases for Use of IT for the Environment."
Takashi Koga (Fujitsu Ltd.)
3. Discussion

As a first presentation on some actual initiatives by corporations, Takashi Koga of Fujitsu Ltd., made a presentation entitled "Cases

for Use of IT for the Environment.” Mr. Koga reported that a remarkable effect had been observed in his company’s efforts to become paperless. Another successful case was introduced showing that by effectively utilizing IT for environmental accounting the frequency for data collection was increased from every six months to every month, and the time required for data collection was shortened from 300 hours to 20 minutes. Based on his presentation, the participants laid out an active discussion on a wide range of issues, including how supply chain management itself becomes an environmental initiative; the lack of a sufficient database on energy in Japan; and the fact that a change of generations becomes a key when discussing future energy demand.

Shuzo Katsumoto then suggested a possible future direction for the study group. He maintained that a framework was needed to systematically and efficiently facilitate future discussions on themes for the study group, which include a very wide range of issues. As one possible option, he proposed a three-by-three matrix, which can be developed by integrating three major segments in society (business, citizens, government) and three factors (technology, political/legal systems, behavior) as a framework for future discussions. The participants commented that time and a global perspective need to be incorporated into the proposed matrix.

Participants:

Chair: Tadahiro Mitsuhashi (Chiba University of Commerce)

Ryosuke Ugo (NEC Corporation)

Keiichi Unno (Accenture)

Takashi Koga (Fujitsu, Ltd.)

Hiroyuki Sato (Green Purchasing Network)

Akihiro Shinoki (Nikko Securities Co., Ltd.)

Hiroyuki Tada (Sony Corporation)

Hidetoshi Nakagami (Jyukankyo Research Institute Inc.)

Shuichi Nomura (IBM Japan, Ltd.)

Ichiro Yamada (NTT Lifestyle and Environmental Technology Laboratories, Nippon Telegraph and Telephone Corporation)

Eric Williams (Institute of Advanced Studies, United Nations University)

Kiyotaka Nakanishi (Nikkei Business Publications, Inc.)

Kazuo Matsushita (IGES)

Shuzo Katsumoto (IGES)

Masahisa Sato (IGES)

Secretariat:

Keiji Kuwahara (Nikkei Business Publications, Inc.)

Kuniko Takagi (Nikkei Business Publications, Inc.)

Yuko Tanno (IGES)

Kazuhisa Shimada (IGES)

(Shuzo Katsumoto)

VII. Other Activities

1. Dissemination of Information

IGES continued to disseminate not only the results of its project research activities throughout the fiscal year 2000, but also information it collected and edited about global environmental issues. These were distributed through publications, the website, newsletters, and other means.

1) IGES Publications

(a) IGES Book Series

"Business and Environmental Governance" (Environmental Governance Project)

This book was published in Japanese in October 2000 as the second volume of the IGES Global Environmental Strategic Research Book Series from Chuo Hoki Publishing Co. Ltd. of Japan. It is a summary of actions taken on environmental issues in the industrial sector of Japan. The report was compiled by a study group consisting of IGES researchers and people in charge of environmental issues in private companies.

"Environment in the 21st Century and New Development Patterns" (New Development Patterns Project)

The book was published in English as the second volume of the IGES English-language Book Series from Kluwer Academic Publishers of the Netherlands, following the Japanese version, which was published by Chuo Hoki Publishing Co. Ltd. of Japan in November 1999.

(b) "International Review for Environmental Strategies (IRES)"

IGES published the inaugural edition of this academic journal in August 2000. Its aim is to disseminate research results and information for the purpose of formulating strategies to solve environmental problems. IGES recruits papers from within and outside the institute to be published in IRES, after a reviewing process. IRES is to be published biannually.



(c) "Top News on Environment in Asia 2000"



IGES continued to publish this booklet series, first released in 1998. It is a collection of major environmental news items compiled with cooperation of researchers and other personnel in sixteen countries and two international organizations.

(d) Newsletter

Our newsletter "What's New from IGES" was published twice during the fiscal year (in January and March 2001), providing information on IGES to global research organizations and researchers, businesses, NGOs and citizens. The number published was 1800 copies in Japanese and 1200 copies in English.

2) Website activities

(a) Management of the Website

IGES disseminated the latest information to the world regarding its research activities and global environmental issues, through its website in both English and Japanese, found at <http://www.iges.or.jp>

(b) IGES Researchers' Database

A new function for posting complete papers was added to the IGES Researchers' Database system, which was started in June 1999. This adds to the existing functions for compiling the names of organizations to which researchers belong, e-mail-addresses, research themes, and a list of publications.

(c) E-mail activities

IGES launched a system of 'E-alerts' in December 2000, making use of the IGES mailing list. It is designed for the timely dissemination of news on IGES activities and latest trends in environmental issues. The number of the registered recipient was about 2200 as of 31 March 31 2001. The E-alerts will be sent every second month.

(Michio Takaku)

2. Affiliate Membership / Seminars for Affiliate Members

One of the goals of IGES is to see that its research findings result in practical application. In order to achieve this, IGES has been building supportive and collaborative networks with various national and local governments, private companies, and NGOs. As a part of these efforts, IGES initiated the system of "official affiliate membership."

Affiliate membership offers many advantages, including invitations to IGES meetings and seminars, free IGES publications, and access to a series of seminars designed especially for affiliate members. The objective of the seminars is to provide the affiliate members with the latest news on IGES research activities and environmental issues. They are open to the public in order to more widely publicize IGES activities to representatives from private companies, NGOs and the public, and also to encourage membership.

In the fiscal year 2000, a series of projects organized by affiliate members were carried out in addition to the conventional seminars held for members. IGES also co-organized a series of seminars with the Kanagawa Foundation for Academic and Cultural Exchange (K-Face) for the residents of Kanagawa Prefecture. Each seminar attracted representatives from national and local governments, private companies, and NGOs, as well as residents of the prefecture.

As of 31 March 2000, IGES affiliate members included fifteen corporations, two NGOs, and eighty-one individual members, about the same number as the previous year. Although it is difficult to obtain new members because of Japan's still-sluggish economy, IGES plans to carry out activities for increasing membership in the fiscal year 2001.

Seminars for Affiliate Members/Open Seminars FY2000

Environmental Accounting and Reporting - Preparation for the Formal Launch of Environmental Information Disclosure

	Date	Theme	Lecturer	Venue
1	Tuesday Jul. 4	Environmental Accounting	Manager, Pricewaterhouse Coopers/ChuoAoyama Audit Corporation	Ryoji Terada
		Reports from Private Companies 1. Environmental Accounting and Information Disclosure at Ricoh Company	Assistant Manager, Planning Group, Corporate Environment Office	Hirimitsu Hatano
2	Thursday Jul. 27	Environmental Accounting Guide Book	Manager, Pricewaterhouse Coopers/ChuoAoyama Audit Corporation	Ryoji Terada
		Reports from Private Companies 2. Environmental Accounting at Taisei Corporation	Manager of Global Environmental Affairs Section, Environmental Management Department, Taisei Corporation	Kouichi Otake
3	Thursday Aug. 17	Environmental Reporting and Accounting	Manager, Pricewaterhouse Coopers/ChuoAoyama Audit Corporation	Ryoji Terada
		Environmental Accounting - Analysis and Challenges	Manager, Pricewaterhouse Coopers/ChuoAoyama Audit Corporation	Yuko Koike
		Reports from Private Companies 3. Environmental Accounting and Reporting - Corporate Activities and their Disclosure	Director, External Relations Office, Ito-Yokado Company	Minoru Inaoka
4	Thursday Sept. 7	Reports from Private Companies 4. Environmental Accounting at Mitsubishi Corporation	Assistant General Manager, Planning Group, Corporate Environment Office, Mitsubishi Corporation	Hirokuni Katae
		Reports from Private Companies 5. Environmental Accounting at The Nikko Securities Company	Head, Department of Environment Affairs, The Nikko Securities Co., Ltd	Eiichi Takahashi
		Reports from Private Companies 6. Environmental Communication	Chief Specialist, Environmental Protection & Recycling Planning Center, Toshiba Corporation	Kiyoshi Sanehira
5	Thursday Sep. 28	Panel Discussion Environmental Accounting and Future	President, Central Environment Council, and Chair of the Board of Directors, Institute of Global Environmental Strategies Director, Planning and Coordination Division, Planning and Coordination Bureau, Environment Agency Group Senior Vice President, Environmental Corporate Affairs Group, Fujitsu Group Limited General Manager, environmental and Social Responsibility Office, Mitsubishi Corporation Pricewaterhouse Coopers/ChuoAoyama Audit Corporation	Akio Morishima Toshiya Ogitsu Takeshi Koga George Yoshikuni Toshie Inoue

Kawasaki Institute of Industry Promotion



Seminars for Evaluating Administrative Policies in the Age of the Environment

	Date	Theme/Title	Lecturer		Venue
1	Wednesday Sep. 6	New Public Management	General Manager, New Public Management Department, Pacific Consultants Co., Ltd	Hideo Shiohara	Kawasaki Institute of Industry Promotion
2	Tuesday Sep. 26	Introduction of Objective and Transparent Evaluation Methods	Partner, Pricewaterhouse Coopers	Ryoko Shimizu	
3	Tuesday Oct. 17	Planning and Evaluation in Advance (Economic Evaluation)	General Manager, New Public Management Department, Pacific Consultants Co., Ltd	Hideo Shiohara	
4	Tuesday Nov. 7	Acquisition of ISO 1401 by Local Governments	Representative Director-President, New Japan Certification Service Co.	Takeshi Narasaki	
5	Tuesday Nov. 28	Administration and Environmental Technology	Managing Director, Kansai Business Information Inc.	Satoru Yoshida	



Series of Seminars by IGES and K-FACE

Towards the Creation of a Resource Recycling-based Society - concerning household waste

	Date	Theme/Title	Lecturer		Venue
1	Friday Jan. 19	Impeding Waste Problems	Methods for Promoting a Resource Recycling-based Society	Chief, Waste Management Division, Environment and Agriculture Department, Kanagawa Pref.	Jun Kobayashi
			The Actual State of Waste Disposal: Examples from Yokohama	Yokohama Citizens Network For Garbage	Michiko Sasaki
			The Most Advance Cases of Reducing Garbage	Staff Researcher, Energy and Resources Department, Mitsubishi Electric Corporation	Daisaku Honda
2	Friday Feb. 2	Reducing Household Waste	The Actual State and Challenges of Container and Packaging Recycling	Director, Planning and Communications, Japan Container and Package Recycling	Hirokazu Doi
			Containers and Packaging from the Point of View of Sellers	Section Head, Eco-heart Section, Daiei Inc.	Kiyoshi Tanimoto
			Recycling Pet Bottles	Secretary General, Japan Pet Bottle Association	Harunaga Miwa
3	Friday Feb. 23	Reducing Household Waste	Recycling of Household Electric Appliances	Manager, Home Appliances Recycling, Business Development Office, Mitsubishi Electric Corporation	Tsuneo Matsumura
			Recycling of Waste in Bulk	Environmental Councillor	Renko Deguchi
4	Friday Mar. 9	Citizens Movements to Reduce Rubbish	Reducing Rubbish through Green Purchasing	Deputy Director General, Green Purchasing Network (GPN)	Hiroyuki Sato
			Environmental Problems	Vice President, The Association of Business Promotion in Moto-sumi Brehemens Str.	Hiroshi Ito
			Reduction of Garbage in Local Governments	Head of Waste Reduction, Department of Resources, Kamakura Municipal Government	Hiroshi Arai
5	Thursday Mar. 29	Pannel Dissussion 'Envisaging a Recyling Based Society'	President, Central Environment Council, and Chair of the Board of Directors, Institute for Global Environmental Strategies Senior Research Fellow, Insurance Research Group, NLIT Research General Manager, Environmental & Social Contribution Dept., Jusco Co. Chief, Waste Reduction Division, Environmental Service Bureau, city of Yokohama Citizens network for Waste Problems, Kawasaki	Akio Morishima Atsuko Kuribayashi Yuriko Ishizuka Hitoshi Nagi Kazuko Iida	Kanagawa Small-and-Medium Sized Enterprise Center

(Michio Takaku)

Chapter 3 Planning a Smooth Start for the Second Phase of Strategic Research



Chapter 3 Planning a Smooth Start for the Second Phase of Strategic Research

1. Establishment of Plans for the Second Phase of Strategic Research

To begin the Second Phase of strategic research that started in April 2001, members of the IGES Program Planning Group (PPG), consisting of directors, trustees and members of the Research Advisory Group (advisory group to the Chair of the Board of Directors), met and discussed the research results from the First Phase. As a result of their work, the Second Phase Strategic Research Plan was completed and approved at the Ninth Meeting of the Board of Directors in February 2001. According to the Plan, new projects the Long-term Perspective and Policy-Integration Project and the project on Business and the Environment, will be added to the projects on Climate Policy, Urban Environmental Management, Forest Conservation, and Environmental Education, all First Phase projects. Furthermore, the new "Information Technologies (IT) and the Environment Project" will be launched as a sub-project of the Long-term Perspective and Policy Integration Project. Also, depending on the budget, IGES hopes to launch projects focusing on nurturing environmental industries in developing countries and on fresh water resources management during or after fiscal year 2002.

As part of the move to further internationalize the institute, IGES became the Secretariat of the Asia-Pacific Eminent Persons Forum on Environment and Development (tentative name), which had been proposed at ECO ASIA 2000 by Yoriko Kawaguchi, Director-General of Japan's former Environment Agency. IGES is not only organizing the forum on the "Kitakyushu Initiative for a Clean Environment," but also preparing for the start-up of the Internet Global Environmental Fund (tentative name), whose research activities, funded by contributions from the Government of Japan, were scheduled to begin in February 2001.

As for the new IGES building, which will serve as a base to carry out the Second Phase of strategic research, designs were completed in fiscal year 2000 with the actual construction started on 15 March 2001. The construction, by a group called the "Joint-Enterprise for the Construction of the IGES Research Facilities," is scheduled for completion in April 2002. The

Kanagawa Public Corporation for Housing commissioned the new building and will own it, with the rent paid by the Kanagawa Prefecture and provided free for use by IGES.

In addition, there were preparations to open the IGES Kansai Research Center in June 2001, with support from the Hyogo Prefecture. The Business and the Environment Project, one of the Second Phase projects, will be conducted on this center.

Discussions took place at the Seventh Meeting of the Board of Directors and the Fifth Meeting of the Board of Trustees in February 2000 to formulate the plan for starting the Second Phase of strategic research in April 2001, based on the achievements of the First Phase. The Program Planning Group (PPG), consisting of directors and trustees, was established along with a process to formulate strategic plans with a view to further internationalize IGES (Table 1). In addition, the Research Advisory Group was established as the consulting committee of the Chair, with the Japanese directors and trustees as the main members (Table 2).

Based on these decisions, the first meeting of the PPG was held in April 2000. The topics and focus of research to be included in the Strategic Research Plan of the Second and later phases were discussed. In the second meeting, held in May 2000, the draft of the Strategic Research Plan for the Second Phase was discussed. It was also discussed in detail at five advisory meetings. The results were then reviewed at the Eighth Meeting of the Board of Directors in June 2000 and compiled as the "IGES Strategic Program for the Second Phase" (Table 3).

The staff of each research project then



PPG Meeting

produced detailed drafts of their strategic plans, based on the IGES Strategic Program for the Second Phase and reflecting comments from directors, trustees and other members. The draft plans were also modified according to advice from Ryokichi Hirono and Peter de Janosi, both members of the IGES Board of Directors. The overall final plan was approved at the Ninth Meeting of the Board of Directors in February 2001 (Table 4).

The Second Phase of Strategic Research Program was formed, taking into account the following three points: (1) the plans should be implemented utilizing the research achievements and experiences from the First Phase, (2) the research should lead to practical and problem-solving-style policy proposals that meet the needs of those expected to utilize the results, and (3) there should be mutual cooperation among the IGES projects.

In the Second Phase Research Program, the contents of the First Phase research projects were improved and expanded. Furthermore, the Long Term Perspective and Policy Integration Project, integrating the New Development Patterns Project and the Environmental Governance

Project from the First Phase, were established along with the Business and the Environment Project. As a sub-project of the Long-term Perspective and Policy Integration Project, the Information Technology and Environment Project was established. Budgeting and other activities will commence during or after the 2002 fiscal year on the project on Freshwater Resources Management in Asia, as well as the Environmental Industry Project, which focuses on nurturing environmental industries in developing countries. In addition, IGES has started work on compiling the "IGES Environmental White Papers for Sustainable Development in Asia and the Pacific" (tentative name), and other projects such as contributing to the WSSD (Rio+10) Conference. IGES is also continuing research on concrete methodologies, etc., for designing a database of environmental information and, from a long-term perspective, further internationalization of the Institute.

From these Second Phase efforts, IGES hopes to make even more effective policy proposals towards realizing sustainable development, at the same time as expanding its international research network.

Table 1. Members of the Program Planning Group (in alphabetical order)

Nirmal Andrews	Regional Director and Representative for Asia and the Pacific, United Nations Environment Programme
Shinji Fukukawa	Chief Executive Officer, Dentsu Institute for Human Studies, Dentsu Inc.
Hironori Hamanaka	Director General, Global Environment Department, Environment Agency, Japan
Yoshio Hatano	President, Foreign Press Center, Japan
Peter Hennicke	Vice President & Director of the Energy Department, Wuppertal Institute for Climate, Environment and Energy
Ryokichi Hirono	Professor Emeritus, Seikei University
Masami Ishizaka	Executive Vice President, Japan National Oil Corporation
Jill Jaeger	Executive Director, International Human Dimensions Programme
Peter de Janosi	Former Director, International Institute for Applied Systems Analysis
Miwako Kurosaka	Representative of the World Resources Institute, Japan
Hoesung Lee	President, Council on Energy and Environment, Korea
Tadahiro Mitsuhashi	Professor, Faculty of Policy Informatics, Chiba University of Commerce
Nobuo Mizuguchi	Vice-Governor, Kanagawa Prefectural Government
Akio Morishima	Chair of the Board of Directors, IGES
Tomomitsu Oba	President, Japan Center for International Finance
Teruaki Okuno	Director-General, Environment Bureau, Kitakyushu Municipal Government
Tongroj Onchan	Senior Advisor, Thailand Environment Institute
Rajendra Pachauri	Director, Tata Energy Research Institute
H. J. Schellnhuber	Director, Potsdam Institute for Climate Impact Research
Kun Zhang	Director General, The Sino-Japan Friendship Center for Environmental Protection

(as of April 2000)

Table 2. Advisory Group Members (alphabetical order)

Akihiro Amano	Professor of Economics, Kwansei Gakuin University
Yukiyasu Aoyama	Director, Planning and Coordination Division, Planning and Coordination Bureau, Environment Agency, Japan
Yasuo Goto	Corporate Counselor and Director Chairman, The Yasuda Fire & Marine Insurance Co. Ltd.
Ryokichi Hirono	Professor Emeritus, Seikei University
Seiji Ichikatai	Director, Planning Division, Global Environment Department, Environment Agency of Japan
Masami Ishizaka	Executive Vice President, Japan National Oil Corporation
Sukio Iwatare	Secretary-General, Global Environment Action
Akio Matsubara	Director, Member of the Board, Toyota Motor Corporation
Tadahiro Mitsuhashi	Professor, Faculty of Policy Informatics, Chiba University of Commerce
Akio Morishima	Chair of the Board of Directors, Institute for Global Environmental Strategies
Shigeyuki Okajima	Executive Director, Japan Environmental Education Forum
Teruaki Okuno	Director General, Environment Bureau, City of Kitakyushu
Nagatoshi Onishi	Director, Environmental Policy Division, Environment Bureau, Lifestyle and Welfare Department, Hyogo Prefecture
Yukio Shimada	Director, Environment Planning Division, Kanagawa Prefectural Government

(as of December 2000)

Table 3. Summary of the IGES Strategic Program for the Second Phase (PPG of June 2000)**I. Strategic Position of IGES**

IGES is an independent, academic, non-governmental organization with international characteristics. The organization conducts strategic research, emphasizing the realization of sustainable development of the Asia-Pacific region in the twenty-first century. To reach this goal, the results of strategic research need to be action-oriented and meet the needs of users.

Research and other activities should be conducted through discussions and systems of international environmental policies.

Regarding plans for the near future; IGES is expected to present a policy report on the concerns and environmental challenges of Asia at the Rio+10 Conference. Also, IGES needs to further its efforts to internationalize, hire non-Japanese researchers to disseminate information, and seek out funding from organizations both inside and outside of Japan.

II. Direction and Priorities of the Strategic Research Projects

While taking into account the results from research and activities during the First Phase, the current system of implementing research should be improved using strategies such as instituting Project Managers. At the same time, new themes such as sustainable development and poverty should be researched as well as the differences between regions. A new department should be established to research crosscutting issues, and the research capacity of IGES should be reinforced through programs such as establishing an exchange of visiting researchers.

In the formulation of the Second Phase Strategic Research Projects, criteria such as the relationship between policies and their practical applications should be included. Then according to these criteria, the findings of the First Phase Strategic Research Projects and their revisions should be reviewed, including reviews of the Environmental Governance Project, the New Development Patterns Project, and new candidates should be identified for Second Phase Strategic Research Projects, such as the environmental conservation measures taken by the private sector, information technologies, leading redirection of external aid to environmental purposes, and research on freshwater resources in Asia.

It is important, while implementing these projects, to develop international research networks at the same time as reflecting the priorities and concerns of local Japanese public bodies, as well as examining the administration of projects with flexible schedules and the implementation of projects recruited publicly.

III. Communication and Capacity Building Programs

IGES should establish departments of communication and outreach, organize a database of the latest information on the environment and development in Asia, and publish a report about the environment in Asia. It is also recommended that IGES should organize a new system for collecting existing research results and statistical data on global environmental issues.

In the Capacity Building Program, IGES should organize a system for capacity building by further developing the eLearning system while also conducting conventional training courses.

IV. Further Internationalization of IGES

In order to carry out international activities, and achieve international status and recognition at the earliest possible date in the Third Phase, IGES should continue to build international strategic partnerships with organizations such as the signatories of the IGES Charter, seek funding from international funding organizations, and recruit researchers internationally.

(PPG report, June 2000)

Table 4. Outline of the IGES Strategic Research Projects - Second Phase

Title	Objectives	Theme
Climate Policy	Research will be carried out mainly to contribute to the design of the international policy measures for mitigating climate change with the aim of providing concrete proposals to policy makers of innovative measures to mitigate climate change.	<ol style="list-style-type: none"> 1. Design of effective domestic policy measures for implementing the Kyoto Protocol in each country 2. Research on the roles played and measures taken by the industry and business sectors for mitigating climate change 3. Research on effective mechanisms for enhancing international cooperation among developed and developing countries 4. Develop GHG emissions/sinks inventory methods 5. Research on assessing vulnerability and adaptation to climate change in the Asian region
Urban Environmental Management	Taking into account the First Phase achievements and the results of rapid economic development in Asian cities, integrated strategies will be developed through case studies based on analyses of the transformation process of the environment in cities as well as the results of comparative studies of different Asian cities.	<ol style="list-style-type: none"> 1. Study of the Process Dynamics of Urban Environmental Evolution 2. Integration of Urban policies of energy-related environmental issues in selected Asian mega-cities 3. Support for the implementation of the Kitakyushu Initiative Network

Title	Objectives	Theme
Forest Conservation	<p>Proposal of practical strategies to promote local participation in forest management</p> <ol style="list-style-type: none"> 1. Develop "IGES local guidelines" 2. Develop "IGES policy recommendations" 3. Develop "IGES national guidelines" 	<ol style="list-style-type: none"> 1. "Local approach" through policy research based on field studies, with the results compiled into "IGES Local Guidelines" 2. "International approach" through policy research focusing on legal, political, and economic aspects, with the results compiled into "IGES policy recommendations" 3. Points 1 and 2 will be integrated into "IGES national guidelines"
Environmental Education	<p>"Action research" will be carried out in the Second Phase, with a view to putting "practice" and "research" together.</p> <ol style="list-style-type: none"> 1. Strategies proposed in the First Phase will be implemented and the results of their practical application will be compiled and reflected in policy proposals 2. Establish a framework for IGES as a future environmental education center in the Asia-Pacific region 	<ol style="list-style-type: none"> 1. Development of practical environmental education materials 2. Implementation of human resources training programs 3. Development of innovative eco-tourism education model
Business and Environment	<p>Research and propose a methodology to promote voluntary environmental initiatives by businesses in order to shift socio-economic systems towards more sustainable patterns.</p>	<ol style="list-style-type: none"> 1. Studies on integrating environmental management tools into corporate management systems 2. Studies on developing instruments and systems of corporate environmental information disclosure 3. Studies on establishing socio-economic systems to promote voluntary corporate activities for environmental conservation
Long-Term Perspective and Policy Integration	<p>Conduct and develop research and policy proposals for solving regional and global environmental issues in the 21st century, using long-term and policy integration approaches through co-ordination with areas covered by other IGES research projects.</p>	<ol style="list-style-type: none"> 1. Compilation of the "Environmental White Paper for Sustainable Development in the Asia-Pacific Region" (tentative name) 2. Contribution to ECO ASIA and "Rio+10" conferences from the Asia-Pacific region 3. Proposals to the Asia-Pacific Eminent Persons Forum on Environment and Development (tentative name) and research on environmental innovation strategies in the Asia-Pacific region for the 21st Century 4. Research on the "greening" of ODA and other development assistance 5. Review of research reports and other materials in response to urgent needs in international environmental policy processes

Title	Objectives	Theme
Information Technology Revolution and Environment	Research of the current status and future prospects of both the positive and negative impacts of IT on the environment, and the proposal of policies that make the best use of IT for achieving sustainable development in the 21st century	<ol style="list-style-type: none"> 1. Study of the present state and impacts of IT 2. Estimation of environmental loads by the IT industry and their mitigation by applying IT 3. Policy proposals about sustainable development and IT
Environmental Industry	Evaluate the present conditions of industries concerning the environment, and discuss and propose measures for fostering these industries.	<ol style="list-style-type: none"> 1. Study of current conditions and future perspectives of the environment and the environmental measures in developing countries 2. Evaluation of current conditions and future perspectives of the environment and the environmental industries 3. Study of the major limitations to foster environmental industries, and how they should be supported by industrialized countries and international organizations
Fresh Water Resources Management	Study integrated water resources management (IWRM) for the sustainable development of freshwater resources in Asia, and study methods for receiving and using funds for the application of IWRM. (tentative)	<ol style="list-style-type: none"> 1. Development of indices and establishment of guidelines for IWRM 2. Research of effective usage of ODA and private finances <p style="text-align: right;">(tentative)</p>
Capacity Building Program	Based on the results of work in the First Phase, capacity building will be promoted through workshops and the Web-based eLearning.	<ol style="list-style-type: none"> 1. Hosting workshops jointly with other organizations (e.g. UNITAR) 2. Promotion of eLearning for the development of online capacity building programs 3. Acceptance of interns
Communication Program	<ol style="list-style-type: none"> 1. Improve public access to quality environmental information, and provide smart information tools for environmental analysis and decision-making. 2. Support IGES project activities in education, research and practice. 	<ol style="list-style-type: none"> 1. Setting up and application of the IGES Communications Strategy 2. Set up and utilization of e-mail lists, such as Email Alerts, and redevelopment of the IGES website to provide the latest information 3. Distribution of information in Japan, and dissemination to the Asia-Pacific region, in collaboration with appropriate external organizations and institutions, such as the International Institute for Sustainable Development (IISD) and Center for International Earth Science Information Network (CIESIN) of Columbia University

(Shinichi Arai)

2. New Activities toward an International Organization

1) Contribution to the Asia-Pacific Eminent Persons Forum

The concept of the Asia-Pacific Eminent Persons Forum on Environment and Development (EPF) was proposed by Ms. Kawaguchi, the Director-General of Japan's Environment Agency, and approved at the Environment Congress for Asia and the Pacific (ECO ASIA) held in September 2000.

The EPF aims to help define an equitable and environmentally sustainable society in Asia and the Pacific region, and to propose a new way to realize these ideas to policy-makers. IGES expects that the EPF will be formally launched at ECO ASIA 2001 to be held in Japan in October 2001.

The result of discussions at the EPF will be presented at occasions of international political dialogues such as the World Summit on Sustainable Development (WSSD, Rio+10) in 2002. Also, it is expected that the final report of the forum will be presented in 2005 at the Ministerial Conference on Environment and Development in Asia and the Pacific of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP/MCED).

IGES hopes to collaborate with related organizations both inside and outside of Japan, act as the Secretariat for the EPF and, at the same time, present its research results in the deliberation process of the EPF. In fiscal year 2000, IGES was commissioned by the Ministry of the Environment to prepare for the formal launch of the EPF during fiscal year 2001. In preparation, IGES collected logistical information for the conference, compiled lists of documents and references to help in the selection of discussion topics, and compiled information on international and regional trends and policy responses on significant issues such as poverty, food, freshwater resources and technology transfer.



Beijing Seminar for the Kitakyushu Initiative for a Clean Environment



Director Yoriko Kawaguchi proposing EPF at ECO ASIA 2000

2) IGES Kitakyushu Office

In September 2000, the IGES Kitakyushu Office held a series of six "MCED (ESCAP)/ECO ASIA 2000 Pre-Symposiums" in Kitakyushu City, with the cooperation of Kitakyushu City and Fukuoka Prefecture. The symposiums were in preparation for two important meetings: MCED 2000, organized by UN/ESCAP, and ECO ASIA 2000, organized by the Environment Agency of Japan (now the Ministry of the Environment).

With the participation of citizens, businesses, and related organizations, the objectives of these symposiums were to increase the understanding of various environmental problems in the Asia-Pacific region, and to discuss strategies for solving these problems. The results were then to be reflected in the Kitakyushu Initiative for a Clean Environment (Kitakyushu Initiative) that was endorsed at the ESCAP/MCED 2000.

The Kitakyushu Initiative is a mechanism to promote environmental countermeasures in cities in the field of environmental quality and human health. Outlined within the Kitakyushu Initiative are policy guidance benefiting from the past experience of Kitakyushu city. Proposed measures to promote actions include the establishment of the Kitakyushu Initiative Network, and action areas, targets and indicators, including the identification of quantitative indicators to monitor achievements. To date, intercity cooperation has included friendship exchanges and voluntary activities on the part of local governments. However, by systematically combining assistance at the national and international levels, the Kitakyushu Initiative is expected to promote urban environmental improvement at the city level.

The IGES Kitakyushu Office has been collaborating with UN/ESCAP, the Government of Japan and other concerned organizations. Activities of the IGES Kitakyushu Office in its second phase will focus on activities for the implementation of the Initiative, aimed at urban environmental improvement in the Asia-Pacific region. Activities in the second phase are as follows:

- i) Identify quantitative indicators to assess and evaluate urban environmental policies.

Surveys of successful case studies of best practices will be carried out to assess urban environmental policies and to identify quantitative indicators to be applied in pilot projects.

- ii) Implement viable pilot projects for urban environmental improvement.

Pilot projects will be instituted making use of the indicators developed and the experiences of other cities. In monitoring their results, the adaptability and suitability of the indicators will be evaluated.

- iii) Establish the Kitakyushu Initiative Network.

The Kitakyushu Initiative Network will be established to develop and improve cooperation among cities, cooperation with local governments, researchers, and national policymakers and to share information and technology on the urban environment.

As part of the implementation plan of the Regional Action Programme adopted at MCED 2000, the Kitakyushu Initiative looks to submit visible results to the 5th Ministerial Conference on Environment and Development in 2005. The timeframe up to that date is as follows:

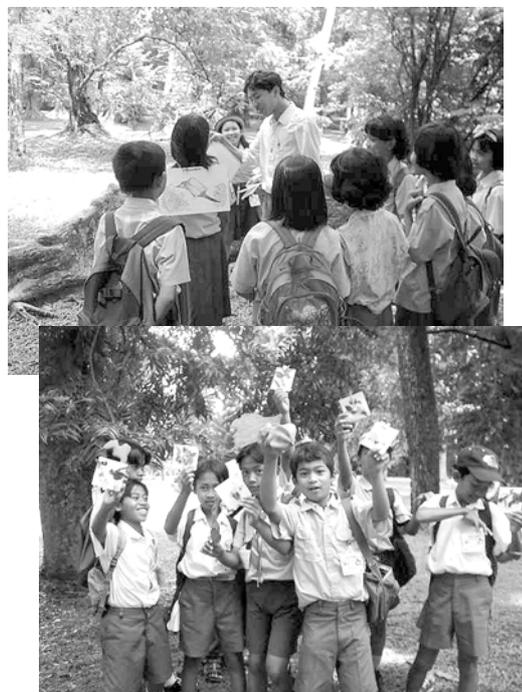
<p>MCED 2000 (September 2000) ↓ Phase 1 Formation of core activities</p> <p>First Network Meeting (November 2001) ↓ Phase 2 Implementation and expansion of core activities</p> <p>Second Network Meeting (2003) ↓ Phase 3 Region-wide application and review</p> <p>Third Initiative Meeting (2004 / 2005) ↓ Results of activities will be reported to MCED 2005</p>

3) Contribution to Internet Global Environmental Fund

Enhancing the activities of NGOs internationally is essential for further promoting sustainable development. The Internet Global Environmental Fund (tentative name) aims to support NGOs that engage in activities and research on the global environment by collecting donations from citizens around the world and other means by effectively applying the latest information technologies. The Ministry of the Environment of Japan is financially supporting the construction of the system and other preparatory expenses.

IGES decided to set up a special account for receiving contributions from the Ministry of the Environment in order to prepare for the establishment of the Fund, develop the system, and operate it on a trial basis. In fiscal year 2000, IGES carried out preparatory work for constructing and operating the system, including coordination with the Ministry of the Environment, organization of the work environment, and collection of information for the construction of the Fund.

It is planned that this system will be started on a trial basis during fiscal year 2002, and then on a full-scale basis in fiscal year 2004.



Environmental Education Activities by NGOs in Indonesia

(Takashi Matsumura, Osamu Norimatsu)

3. Construction of the New IGES Building

The new IGES building is being constructed by the Kanagawa Public Corporation for Housing. It will be owned by the Corporation, and provided to IGES rent-free by the Kanagawa Prefectural Government.

The actual design and construction process started at the end of the fiscal year 1999. In February 2000, the company chosen as the planner, Nikkei Sekkei Ltd., incorporated the requests from IGES, as the user of the facilities, into the basic plans and plans for construction.

In accordance with the construction plans, after receiving and evaluating proposals from ten business groups with VE plan formulation, the Corporation selected a joint-enterprise of two companies, Kajima Corporation and Mitsui Construction.

Construction work for the new building began on 15 March 2001 by the "Joint-Enterprise for the Construction of the IGES Joint Research Facilities," consisting of three companies after the

local company, Kobai Co., Ltd., joined the project. The new building is scheduled for completion in April 2002.

Summary of Construction

Building type :	Office Building
Location :	Kanagawa Pref., Japan
Completion :	April. 2002
Site area :	20,974m ²
Gross floor area :	6,992m ²
Typical building occupancy:	170 persons
Architectural Design:	Nikken Sekkei Ltd.

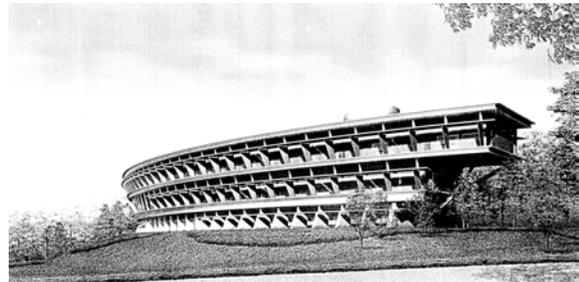
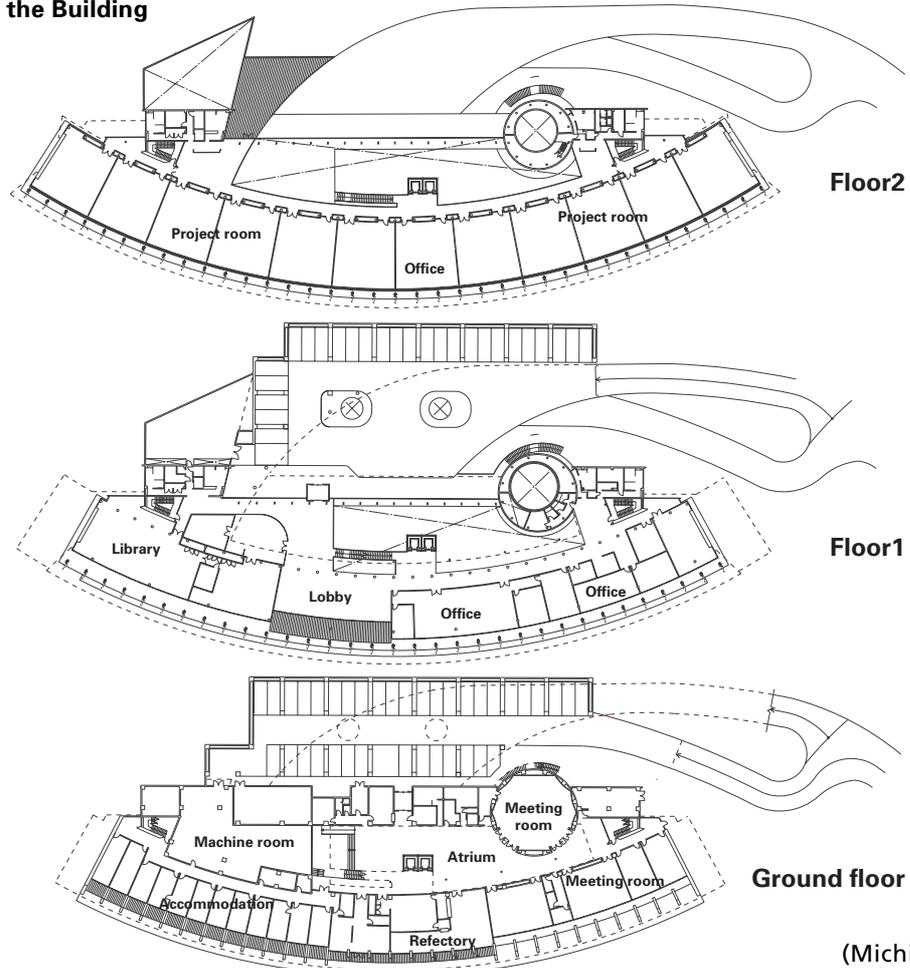


Image of the New Building

Floor Plan of the Building



(Michio Takaku)

4. IGES Kansai Research Center

With the start of the second phase of IGES's research, the IGES Kansai Research Center was established by a declaration at the IGES board of directors meeting in February 2001. The Center will be located at the Kobe New Eastern City Center, a newly developing urbanized area where the Great Hanshin-Awaji Earthquake occurred, in Kobe City, Hyogo Prefecture. Environmental research activities will begin in June 2001, centering on the theme of "Industry and the Environment," and seeking cooperation with universities, research institutions, companies and environment-related organizations in the Kansai area (Kobe, Osaka, Kyoto, etc.).

As one of IGES's Second Phase projects, the Center is implementing the Business and the Environment Project and related studies aimed at serving the autonomous transformation of industrial structures and the creation of a new business style consistent with environmental conservation.

The IGES Kansai Research Center was established and is operated with strong support from the government of Hyogo Prefecture and in cooperation with businesses in the Kansai area. In fiscal year 2000, IGES and Hyogo Prefecture jointly organized an international symposium, and established the Kansai Research Center Advisory Board in order to expand the network with environmental organizations, companies, local governments, and researchers in the area.

1) International Symposium: "Business and the Environment"

An international symposium entitled "Business and the Environment: Corporate Strategy in the Age of Global Environmental Conservation - In Search of New Business Development," was held in June 2000 at the Awaji Yumebutai International Conference Center in Hyogo, Japan.



International Symposium "Business and the Environment"

Table 1: Panelists in the "Business and the Environment" International Symposium (24 June 2000)

<p>Coordinator: Akihiro Amano (Professor of Economics, School of Policy Studies, Kwanasai Gakuin University, Japan/ IGES Director)</p> <p>Panelists:</p> <ul style="list-style-type: none"> ● Peter E. de Janosi (Former Director, International Institute for Applied Systems Analysis, U.S.A./IGES Director) ● Peter Hennicke (Vice President, Director of the Energy Department, Wuppertal Institute for Climate, Environment and Energy, Germany/IGES Trustee) ● Katsuhiko Kokubu (Associate Professor of Accounting, Graduate School of Business Administration, Kobe University, Japan) ● Hoesung Lee (President, Council on Energy and Environment Korea, Korea/Director, IGES) ● Tongroj Onchan (Senior Advisor, Thailand Environment Institute (TEI), Thailand/IGES Director) ● Taichiro Suda (General Manager, Environmental Affairs, General Office of Plantsiting & Environmental Considerations, Kansai Electric Power Co., Inc., Japan) ● Takashi Yoshimura (General Manager, Corporate Environmental Affairs Division, Matsushita Electric Industrial Co., Ltd., Japan)

The keynote address, "Factor 4: Strategy for Eco-efficiency - Doubling Wealth-Halving Resource Use," was delivered by Dr. Peter Hennicke (Vice President, Director of the Energy Department, Wuppertal Institute for Climate, Environment and Energy in Germany, IGES Trustee). In the Panel Discussion with coordinator Akihiro Amano, many topics were covered, such as: the dilemma between corporate management and environmental protection; the use of market evaluation in environmental corporate management; the promotion of environmental research and education at business schools; and lessons from experiences in the panelists' countries. The room was full, with about 200 participants from corporations, research institutes, and governments. Many questions raised in discussions revealed a high level of interest and concern for Kansai's economy and society on the topic of "Business and the Environment."

2) IGES Kansai Research Center Advisory Board

IGES and the government of Hyogo Prefecture established the IGES Kansai Research Center Advisory Board in January 2001. Members come from academia and organizations related to the environment and economy, corporations and local governments in the Kansai area. The chair of the Advisory Board, Yutaka Suzuki, president

of the Himeji Institute of Technology, and the board members agreed to meet regularly to advise the Kansai Research Center. In their first meeting, members of the board expressed high expectations for the Center, which will conduct research on "Industry and the Environment." During discussions, the board members requested that the Center conduct practical, useful research emerging from the needs of corporations, NGOs, and local governments. Some of the more important requests follow:

- (a) Environmental conservation will be one of the important measures for evaluating corporations. Studies at the Kansai Research Center should be tested in practice in order to be reflected in corporate activities.

Table 2: Members of IGES Kansai Research Center Advisory Board

Researchers

1. Akihiro Amano (Professor of Economics, School of Policy Studies, Kwansai Gakuin University)
2. Kazuhiro Ueta (Professor of Environmental Economics and Public Finance, Graduate School of Economics, Kyoto University)
3. Takashi Gunnjima (Professor of Economics, School of Economics, Doshisha University)
4. Katsuhiko Kokubu (Associate Professor, Graduate School of Business Administration, Kobe University)
5. Yutaka Suzuki, Chair of the Board (the President, Himeji Institute of Technology)
6. Hidenori Niizawa (Professor, Kobe University of Commerce)
7. Tohru Morioka (Professor of Environmental System Planning, Department of Environmental Engineering, Graduate School of Engineering, Osaka University)
8. Akio Morimoto (Deputy Chair, Editorial Committee, the Kobe Shinbun)

Organizations and corporations

9. Global Environmental Forum-KANSAI
10. Kansai Council
11. Kansai Economic Federation
12. The Federation of Chamber of Commerce and Industry in Hyogo Prefecture
13. Hyogo Prefectural Federation of Societies of Commerce and Industry
14. The Hyogo Industrial Association
15. The Osaka Industrial Association
16. The New Industry Research Organization
17. Kansai Electric Power Co., Inc.
18. Osaka Gas Co., LTD.
19. Matsushita Electric Industrial Co., Ltd.
20. Co-op Kobe
21. Green Consumer Network

Local Government

22. Environmental Bureau, Kobe City

(as of January 2001)

- (b) Conduct research for the many small and medium enterprises (SMEs) in the Kansai area and the Asia-Pacific region.
- (c) Conduct research on corporate environmental information disclosure, a significant element for implementing effective environmental conservation.
- (d) There is great demand in the industrial sector for research that can be utilized for practical purposes, such as studies on best practices and success stories.
- (e) The Kansai Research Center should establish a system to include the needs and concerns of various parties, such as corporations, citizens, and local governments.
- (f) The research and activities of the Center be reviewed and evaluated by outside bodies, such as the Advisory Board.

3) Organization Structure of the IGES Kansai Research Center

The IGES Kansai Research Center will begin their research activities in June 2001 under directions of Dr. Akihiro Amano as the Office Director. Table 3 shows organization structure of the IGES Kansai Research Center

Table 3: Organizational structure of IGES Kansai Research Center

Office Director:	Akihiro Amano, Director of IGES/ Professor of Economics, School of Policy Studies, Kwansai Gakuin University
Project Leader:	Katsuhiko Kokubu, Professor of Accounting, Graduate School of Business Administration, Kobe University
Research Fellows:	3 persons (full-time)
Visiting researchers:	several researchers from corporations and institutions inside and outside of Japan
Research Planning and Administrative Officer:	1 person
Project Secretary:	1 person

(Akira Yoshida, Deputy Director, Environmental Bureau, Lifestyle and Welfare Department, Hyogo Prefecture)

