



II

Outcomes of Each Research Project



Climate Policy Project (CP)

Outline of the Second Phase Project Plan

The mission of the Climate Policy (CP) project is to identify, design and/or evaluate pragmatic climate policies for sustainable development in the Asia-Pacific region. In Phase 2, the main objectives of our work were to propose a comprehensive policy mix for Japan to attain the Kyoto targets, identify effective measures for promoting international cooperation in Asian climate policy, and lay the basis for work on beyond Kyoto issues and adaptation policies. Substantial progress was made in meeting all these goals.

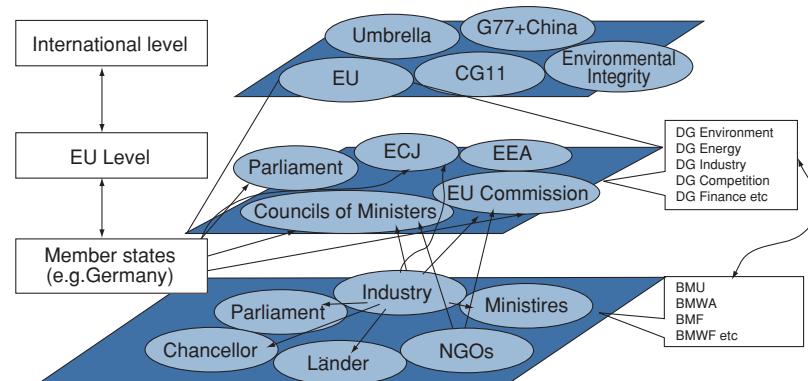
Report on Activities during FY2003

Research in FY 2003, the last year of Phase 2, was conducted under four sub-themes: 1) domestic policies, 2) international cooperation, 3) vulnerability and adaptation, and 4) global participation in future climate regime.

1)In the sub-theme of domestic policies, the main focus was on assessment of climate policies in the European Union (EU) in general, and Germany and the USA in particular, along with its implications for Japan. As a first step, progress in development of climate policies at the EU level and at a member state level in Germany was assessed. It was concluded that difficulties in reconciling interests of various stakeholders at different decision making levels (Fig.) contributed to slow progress in the development of effective climate policy at the EU level. By working as a visiting researcher at

the IUCN Environmental Law Centre and Wuppertal Institute in Germany, one of our staff multilayer structure of climate policy development in EU members initiated studies on the directive making process of the EU emissions trading scheme (EU-ETS), and analysed its implications for Japan. This work is of great significance as the EU-ETS would cover an increasingly large proportion of the total greenhouse gas (GHG) emissions regulated under the Kyoto Protocol, and the birth of the first regional ETS is expected to indirectly affect development of climate policies and measures in Japan.

As the USA is the biggest GHG emitter, its policies have a crucial role in the stabilisation of the global climate. However, the US decided to withdraw from the Kyoto Protocol in 2001. We therefore examined policies at state and local levels to assess their contributions to the global climate. It was concluded that state level initiatives merit appreciation, but do not meet the expectations of the global community, and that there is a strong need for integrating such initiatives with those of the Federal Government. At the request of the Japanese Ministry of the Environment (MoEJ), we compiled various reports on domestic policies in the US, and submitted them at regular intervals. In cooperation with the Resource for the Future (RFF), we held a one-and-a-half day workshop in Washington DC to review domestic policies in the US and Japan, and prospects for bilateral collaboration. At the workshop, bilateral cooperation was



■ Outcomes of Each Research Project ■



considered the most appropriate especially in the field of technology development and commercialisation.

2) In the sub-theme of international cooperation, we focused on the Clean Development Mechanism (CDM). The success of CDM, and therefore the ability of Japan to benefit from it, rests on the capacity of Asian developing countries to develop and screen CDM projects. Building the capacity of policy makers, the private sector and academia in the region to identify, develop and implement CDM projects can increase opportunities for transfer of clean technologies and finances to mitigate climate change, thereby contributing to a range of benefits, including reduced air pollution, improved natural resource management, and of course, the mitigation of climate change impacts. At MoEJ's request, we initiated in October 2003 a 3-year programme on integrated capacity strengthening for CDM focusing on three sectors: waste management, biomass and other renewable sources of energy, and small scale integrated CDM projects. The programme operates based on three princi-

ples: synergy, simplicity and sustainability. The promotion of stakeholder dialogues is a key component of the programme. Under this programme, as many as 25 local, national and regional workshops aimed at strengthening the capacity of various stakeholders were held from October 2003 to March 2004 in Cambodia, Indonesia, India and the Philippines, in collaboration with various local, national and international organisations (e.g., UNEP). A presentation on capacity building needs of Asian countries based on missions to Indonesia, Thailand, Cambodia and India was made at the 13th Asia-Pacific Seminar on Climate Change in Miyazaki, Japan. In order to publicise our efforts and build further networks in the CDM, a side event was held at COP9 in Milan in December 2003. At this event, we presented "methodological and technological barriers for CDM implementation in Asia" and the "IGES initiative on integrated capacity strengthening for CDM in Asia". In addition, one of our researchers discussed Japan's policy to put CDM into operation at the Climate Technology



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Figure1. Interviews with village officials and villagers on local flood management strategies in Manikganj sub-district, Bangladesh

Bazaar held in Delhi, India. As a follow-up to climate policy dialogues held in previous years during this phase, and to fulfil the need for further promotion of information outreach in the climate policy arena in the region, the idea of developing country-specific climate policy fact sheets was proposed at the World Climate Change Conference held in Moscow.

3) In the sub-theme of vulnerability and adaptation issues, a field survey was conducted in Bangladesh in July and August 2003 to identify good local practices aimed at facilitating adaptation to climate extremes (droughts, floods and sea level rise), examine the utility of local assessments of vulnerability, and identify ways to integrate indigenous knowledge in climate change adaptation plans (photo). A few good practices were documented for inclusion in the Good Practices Inventory of the sub-project called "Research on Innovative and Strategic Options (RISPO)". The field survey considered perceptions of local people on climate change events and key indicators of their vulnerability, main coping strategies and frequency of strategy use, and assessed the potential for facilitating further adaptation through policy and technology choices, and institutional arrangements. The survey revealed that local/indigenous survival strategies still remain the most reliable and sustainable forms of response to climate extremes. The survey showed variation between men and women in perceptions of the same climate extreme. In Shyamnagar region, for example, men perceived salinity build-up due to current sea level rise as an advantage for improving

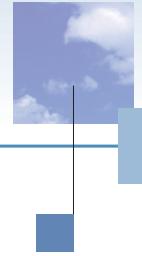
income levels as it allowed them to shift from paddy to shrimp cultivation. Women, however, considered it a curse, and reported difficulties mainly in obtaining fresh water for drinking. The survey also showed that first generation "top-down" assessments of vulnerability and adaptive capacity based on scenario-based global climate models did not adequately consider local climate variability and concerns of key local stakeholders. Findings from this survey were presented at the Open Meeting of the International Human Dimensions Programme (IHDP) held in Montreal in October 2003. As mountain ecosystems are one of the highly vulnerable regions affected by climate change, an international workshop "Adaptation to climate change in mountain ecosystems: Bridging research and policy" was held in March 2004 in Kathmandu, Nepal. The participants concluded that further efforts to disseminate research in a form suitable to facilitate decision making by planners is critical in future.

4) In this year, work on governance and beyond Kyoto issues was initiated. One of our visiting researchers examined the global climate change regime building process and its relation to domestic capacity and regional organisation. As per COP guidelines, discussions on the creation of an international framework applicable after 2012 are expected to commence in 2005. As part of this preparatory work, we organised a public symposium on post-Kyoto issues for Japanese stakeholders, and an informal expert consultation in Tokyo in October 2003. The symposium was well attended, with over 300 participants representing vari-



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Figure 2: Open symposium on "International climate regime beyond 2012" at Fukoku Seimei Building, Tokyo



ous sections of society. In order to publicise this research and establish a cooperative framework with various organisations, we held a side event at COP9 in Milan where we disseminated a preliminary publication on incentives for global participation. In collaboration with NIES, we published a summary report on important side events related to the post-Kyoto discussions held at COP9. At MoEJ's request, our researchers provided relevant data, information digests and other summary reports as a basis for discussions on post-Kyoto issues by the Global Environmental Committee of the Central Environmental Council.

In addition to the above, several commissioned research tasks were undertaken at the request of various ministries in Japan. At MoEJ's request, for example, we prepared reports on compliance issues of the Kyoto protocol and on current information disclosure laws in the USA, Germany and Japan, in order to assist Japanese policy makers in their negotiations.

Besides research, the CP project was active in information outreach and capacity building. Through organising and contributing to a number of national and international workshops, we were successful in raising

general awareness and knowledge among people on climate change-related issues in the region, and subsequently a regard for such issues in policy making and development planning of various sectors. Besides stimulating discussions among the policy makers, industry, the general public and other stakeholders, our workshops contributed to promoting public knowledge of climate policy issues and options in Asia. Throughout this work, the CP project maintained excellent partnerships with other IGES projects and various organisations abroad.

Looking Towards the Third Phase

The long-term nature of the challenge of climate change, however, requires long-term efforts to design coherent and durable policy options that can maximise environmental protection and sustainable development in Asia. Based on our accomplishments and progress so far, we are confident that our project is well-positioned to contribute to meeting this challenge in Phase 3 and beyond by working on topics such as domestic policies, Kyoto mechanisms, beyond Kyoto issues, and adaptation policies.

Forest Conservation Project (FC)

Outline of the Second Phase Project Plan

The aim of the Forest Conservation (FC) Project was to develop strategies for forest conservation and management for sustainable forests. To achieve this goal, various approaches could be considered, but we aimed to create guidelines and advice to promote "local level participation in forest management", an approach which we hoped would help alleviate poverty and ensure sustainable forest management.

- 1) Developing Village Action Guidelines (VAG) for village level participants in forest management and other stakeholders,
- 2) Developing Local Policy Guidelines (LPG) for local level (state or regional) governments and other stakeholders, and
- 3) Developing National Policy Recommendations (NPR) to ensure the effective application of international treaties on local participation in forest management at the national level.

The FC project conducted research using a combination of two approaches. The first was the local approach through VAG. Starting with analysis on a village level, this approach expanded the viewpoint to a local and central government level. We used a method called Participatory Action Research (PAR). This is a process whereby citizens study alongside researchers, concerning issues to improve their own way of life. Furthermore, we held small workshops with village and district level participation. The second approach was the "international approach" using NPR. This studied issues first from an international level and then shifted its focus to the national and local levels. These two approaches were combined through local level discussions, particularly in the process of forming LPG.

The countries used for research in the Second Phase were Indonesia, Lao PDR, and Far East Russia. Strategic policy research is important in these three countries from the viewpoint of their political characteristics and the state of their forests and forest management. Indonesia is not only the most important country in the world in terms of biodiversity conservation, but it is also a country in transition to democracy. The Lao PDR

is in transition to a market economy and Russia is making progress in political reforms and is also in transition to a market economy.

Report on Activities during FY2003

FY 2003 was the final year of the Second Phase and we completed a summary of the main results. In concrete terms, we have formulated guidelines, drawn up reports summarising the studies of research processes, as well as publishing the results of project activities commercially.

In FY 2003, we held meetings and workshops in Indonesia, Russia and Lao PDR to conduct final discussions and formulate guidelines for each country. In October 2003, we held an international workshop in Khabarovsk, Russia, where there were discussions with researchers on Village Action Guidelines (VAG), Local Policy Guidelines (LPG) and National Policy Recommendations (NPR) for participatory forest management. Following that, we went ahead with revisions to our work and drew up the "Guidelines and Recommendations for Sustainable and Participatory Forest Use and Management". This was published first in English and then in the Indonesian, Laotian and Russian languages.

In addition, we published the "Indonesian Country Report", "Laos Country Report", the "Russian Country Report" and the "Policy Trend Report" summarising study results of the process of guideline formulation. We also published commercially a summary of research results from the First and Second Phases "People and Forest ? Policy and Local Reality in Southeast Asia, the Russian Far East and Japan" published by the Kluwer Academic Publisher, and also "Forest Depletion and Conservation in Asia" by Chuohoki Publishers.

Looking Towards the Third Phase

Research activities on Participatory Action Research, including local citizens and regional governments, were very timely for the main stakeholders targeted by our project. These stakeholders, facing local decentralisation policies, were in need of support and cooperation from outside sources such as development

specialists, academics, NGOs and other international organisations. Eradication of poverty in the local community is a pressing problem which needs the combined efforts of other stakeholders. Our research focused on citizens' participation, and in this respect was particularly opportune. On the project management side, our staff, including the project leader and manager, were able to share work and cooperate successfully with other researchers. The FC project showed strong solidarity

and wonderful teamwork. However, we were unable to make our presence sufficiently felt internationally, as pointed out by the Board of Directors. Neither were we able to find a path linking the guidelines we had made on a local level, to forest conservation as a whole in Asia. To this end, we will lay out strategies in the Third Phase towards "Cooperative Forest Governance" targeting the local government level, as well as trying to bring our results onto the international stage.



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Urban Environmental Management Project (UE)

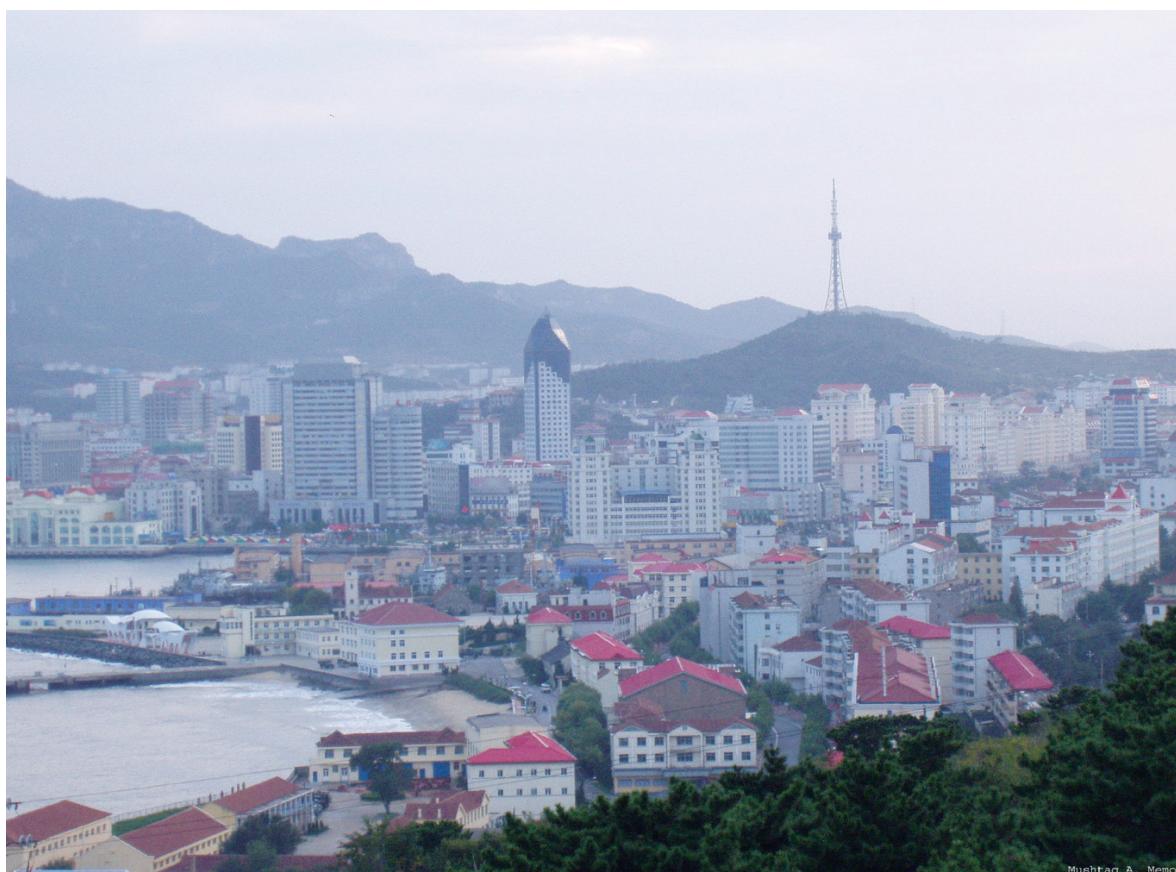
Outline of the Second Phase Project Plan

The primary objective of the Urban Environmental Management Project (UE) is to conduct strategic research to guide the environmentally sound development of Asian cities with diverse economic and social conditions. In the Second Phase (FY2001-2003), UE conducted research tailored towards highlighting examples of policy options, institutional systems, technical choices, urban planning, infrastructure development and financial mechanisms for better urban environmental management. Research was conducted under the following themes:

- 1) Study on the Process Dynamics of Urban Environmental Evolution,
- 2) Urban Policy Integration of Energy related Environmental Issues in Selected Asian Mega-cities,
- 3) Support for the Implementation of the Kitakyushu Initiative Network.

Report on Activities during FY2003

The UE project concluded research under the above themes, focusing on the development of environmental indicators, development of urban environmental management capacity, evaluation of the role of public participation and private sector partnerships to improve urban environmental infrastructure, and evaluation of the impact of energy on greenhouse gas emissions and associated policies. Regarding the development of indicators, a detailed analysis of Kitakyushu City was conducted using the Environmental Asset Approach and various urban environmental management assets of the city were compiled into a database. When looking into urban environmental management capacity, the major focus was on partnerships between various actors: national and local governments, the private sector and individual citizens. Public-private partnerships for water supply and wastewater projects were analysed to assist



Weihai (China)

Mushtaq A. Memon

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local governments in establishing local public-private partnerships for small scale projects. In solid waste management, the focus was on public participation and community driven projects. For better air quality management, partnerships between local and national governments were addressed. In the areas of energy and GHG, the activities of the last three years were consolidated and a simulation of transportation for the residential and commercial sectors was completed for four cities along with a survey and evaluation of past and present policies.

The outcomes of the research activities were disseminated to urban policy makers, international agencies, and academic researchers at various international workshops and seminars. A number of reports and other types of publication were published in FY 2003, including the report entitled Financial Mechanisms for Environmental Protection in China that was published in cooperation with the China Council for International Cooperation on Environment and Development. Moreover, the project organised workshops and seminars, including the International Workshop on Sustainable Urban Environment in Asia (August 2003), the Surabaya Air Quality Workshop (August 2002), the Local Air Quality Management - Better Air Quality (BAQ) 2003 Workshop

(December 2003), the International Workshop on Policy Integration Towards Sustainable Urban Energy Use for Asian Cities: Interacting Local Air Pollution and Greenhouse Gas Emissions Concern (January 2004), and thematic seminars on industrial relocation and public participation under the Kitakyushu Initiative, in August 2003 and January 2004, respectively.

Looking Towards the Third Phase

The overall objective of the third phase of the Project is to provide policy makers in Asian cities with strategies and measures to strengthen their management capacity to improve urban environmental services and infrastructure. This overall objective is further segregated into hypotheses for specific sectors: air, water and solid waste management. Identifying the increasing importance of balanced roles between the public and private sectors for the delivery of these services, it is proposed to address this aspect as a cross-cutting issue across all of these three major sectors, but with the main focus on water. All of the activities will focus on deriving strategies for three different groups of cities: less developed, rapidly industrialising, and relatively mature cities. Primarily, the Project's target group is municipal policy makers in Asia.

Environmental Education Project (EE)

Summary of Second Phase project plan

In the first phase, the EE project worked on gaining an understanding of current environmental education in Asia and the Pacific, as well as developing comprehensive strategies to promote environmental education. This research, while improving environmental education in the Asia Pacific region, also showed how important such work will be in the future. Furthermore, it was found that environmental education should be put into practice urgently in the Asia Pacific region and the EE project is putting priority on practical activities to achieve this aim.

We have proposed policies based on the evaluation of environmental education in the Asia Pacific region and, through strategies developed in the first phase, we tried to establish IGES as a base to be used as a centre for future environmental education in Asia and the Pacific. Activities in the second phase covered the following three areas: 1)Development of materials for environmental education, 2)Nurturing of human resources for environmental education, and 3)Proposal of an innovative model for environmental education.

Report on Activities during FY2003

The activities of this project for FY 2003 were based on the Second Phase Strategic Research Plan and were carried out as the final year of Phase 2.

1) Wetlands education materials: We developed materials aimed at heightening awareness on the wise use and conservation of wetlands. Four modules were created based on draft copies and information gathered thus far by concerned parties. The modules are: Let us Keep our Wetlands Healthy; What is Happening to our Freshwater Resources; Developing Objective-oriented Programmes, and Participatory Rural Appraisal (PRA). We first developed an English-language booklet and then printed the material in Thai and local Indian languages. The booklets were then distributed at wetland conservation locations by researchers in each country.

2)EE Training programme for NGO staff in Indonesia: Every year since 1999, the EE project has implemented a training programme for NGO staff in Indonesia, in col-

laboration with the Japan International Cooperation Agency (JICA). The training programme has been held four times so far and the number of participants has grown to over 20. Workshops are led by former participants of the training programme for NGO staff who are currently engaged in environmental education activities locally in Indonesia. In the workshops, a review of research projects so far is conducted, and there are discussions on research content, training results and future prospects. As a result of the workshops, the staff participating from environmental education NGOs in Indonesia have gained improved skills and participants become leaders in their various NGOs and communities. They developed to the stage where they can conduct training themselves.

3)Educational Research into Eco-tourism: In local areas in developing countries, we seek to sustain natural and social resources while conducting tourism and we have worked on introducing EE simultaneously for local people and tourists. To this end, EE project conducted a field survey on eco-tourism in Phase 2. We focused particularly on the Tonle Sap Lake area in Cambodia and conducted a trial eco-tour. We were able to ascertain the technical process involved in an eco-tour through field surveys before and after the tour, hearings with concerned parties, cooperation with local travel agents, and questionnaires put to the participants before and after the tour.

4)TEEN: The Tripartite Environmental Education Network (TEEN) made up of China, Korea and Japan had been operating since FY2000. Based on information and data supporting this network, the EE project has conducted comparative research on environmental education in the three TEEN countries. The Fourth TEEN workshop and symposium was held in January 2004 in Shizuoka, Japan. The EE project leader was one of the participants, contributing to the creation of a network of policy makers, NGO staff and researchers.

5)Workshop in Nepal on Education for Sustainable Development (ESD): The EE project held the "Seminar Workshop for ESD" in Kathmandu, Nepal on 27-28 August 2003. The aim of this conference was to conduct



a workshop with the participants from Nepal's education system, public administration and NGOs, to think how best to introduce ESD in developing countries like Nepal. There was also discussion on the way forward in ESD. The results of this conference were summed up in "Education for Sustainable Development in Nepal: Views and Vision".

Looking Towards the Third Phase

The EE project has spent the last 6 years since 1998 researching and implementing environmental edu-

cation. In those 6 years, new international trends have emerged. The UN declared the ten-year period from 2005 as the UN Decade on Education for Sustainable Development, led by UNESCO with Japan as one of the main proposal-makers. Such new trends in global education are expected to draw a great deal of attention world-wide. As one of the issues taken up in the Third Phase, IGES will investigate the level of engagement in the UN scheme, by developing practical plans and conducting research as a participant in this scheme.



People in Nepal

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Freshwater Resources Management Project (FW)

Outline of the Second Phase Plan

The 21st century is often called the "century for water", and water resource issues have become a large global problem. With this in mind, IGES established the Freshwater Resources Management Project (FW) as a new research project in the Second Phase. We began research into means to use and manage limited freshwater resources in a sustainable manner. This new project, prepared under the Long Term Perspective and Policy Integration Project (LTP), conducted practical studies on research themes and methodology.

In November 2003, the "Freshwater Resources Management Project (FW)" was launched (project leader: Professor Ogaki, from the Department of Urban Engineering, School of Engineering, University of Tokyo) and began operations.

Report on Activities during FY2003

As the project was only formally launched in November 2003, this fiscal year focused on preparation

and characteristics of proper research implementation in the Third Phase. We also looked into the framework for the initiative "Water Environment Partnership in Asia (WEPA)" proposed by the Ministry of the Environment of Japan at the 3rd World Water forum. The details of activities in FY 2003 are set out below.

1. Policy reviews on comprehensive water resource management in Asia and studies into present and future issues of freshwater resource management.

Established in FY 2002, the Study Group on Freshwater Resource Management in Asia investigated various problems concerning freshwater resources in Asia.

2. Contributions to APFED's final report and commitment.

We were in charge of writing the section on water resources for the APFED final report.

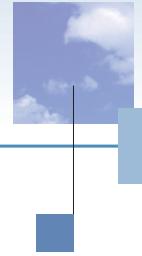
3. Contributions to WEPA.

WEPA is the initiative proposed by Ministry of the



WEPA Inception Workshop

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Environment of Japan at the 3rd World Water Forum in Kyoto in March 2003. It aims to promote water environment conservation by creating databases as an information platform based on partnerships among the relevant countries in the region. On the verge of beginning work in FY 2004, the FW project was involved in formulating a proposed plan for the programme in FY 2003, as one of the cooperative organisations for WEPA. In practical terms, we established a steering committee made up of specialists from Japan, and as well as making preparatory studies into the content of the databases, we also held a "WEPA Inception Workshop" in March 2004, in Jakarta, Indonesia. Participants came from 10 countries connected to the Asian monsoon. In the summary of this workshop, the chairman confirmed the progress made by the WEPA programme through partnership with each country involved.

Looking Towards the Third Phase

In Third Phase Strategic Research, the FW project will target Asian cities and their surroundings, looking at

water resource policies from a wider viewpoint, and will conduct research to provide a comprehensive policy design for the sustainable use of water resources. Concretely, we will try to focus on research in cooperation with institutes from across Asia. However, it is necessary to think out and establish a plan for the Third Phase Strategic Research at the earliest possible time, to decide how to provide policy-makers with a system to implement research in cooperation with other research institutions, and offer them concrete results.

We will continue playing a positive role in the WEPA programme, and based on the results of the WEPA Inception Workshop, we will continue to cooperate to create an organic partnership with the nations of Asia. It is also necessary to look into the practical details of the databases.

In order to steadily implement research activities, it is necessary not only to hire new research staff but also to strengthen the capabilities of the staff. Furthermore, we need to build stronger links with other IGES projects such as the Urban Environmental Management Project (UE).

Business and the Environment Project (BE)

Outline of the Second Phase Plan

This project (BE) is based at the Kansai Research Centre and carries out activities with the theme of "Research towards environmental protection in the private sector". BE has been working towards the integration of environmental management methods and corporate management systems by analysing and evaluating current corporate volunteer conservation activities, including environmental accounting, environmental disclosure and environmental management evaluation. It aims to propose concrete measures to promote corporate conservation activities as well as a socioeconomic system to put them into practice.

Report on Activities during FY2003

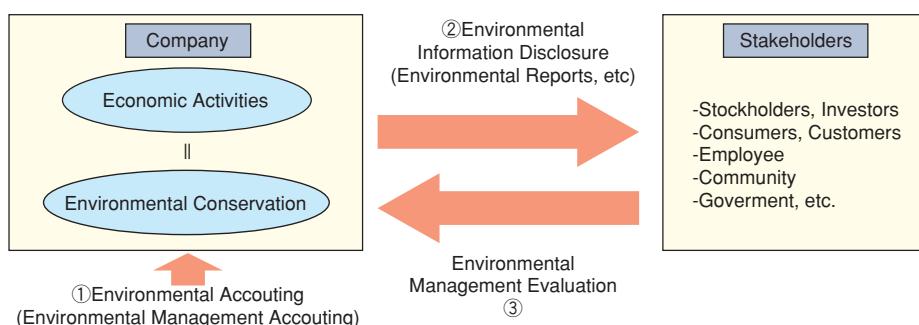
1) Environmental Accounting:

a) Survey of environmental management accounting:

We conducted a survey among companies listed in the 1st section of the Tokyo Stock Exchange. Environmental accounting in Japanese corporations has mainly put emphasis on information disclosure, but it is clear that environmental accounting conducted as part of internal management is slowly gaining ground. Furthermore, the use of internal methods of environmental accounting, expanding of powers of specialist environmental departments, and increases in the range of environmental costs have all improved the effectiveness of environmental accounting as part of internal management. b) Case studies of environmental management accounting: Based on the above-mentioned survey, case studies were carried out of corporations with the most pro-

gressive environmental management accounting practices, namely those companies which had already implemented a system to evaluate the accomplishments of environmental considerations and material flow cost accounting. In addition, continuing from the previous year, we conducted research on the development of methods of Material Flow Cost accounting with Shionogi & Co. Ltd. and Nippon Paint Co. Ltd. as our research sites. c) Analysis of Environmental Management Evaluation Indicators and Cost Evaluation: New trends in environmental accounting are cost evaluation of the results of environmental conservation and the development of environmental management indicators such as the eco-efficiency index. Analysis of these trends has been carried out as a target for Japanese corporate environmental reporting.

2) Environmental Disclosure: Continuing from the previous year, we conducted a survey of around 2500 companies listed on the stock exchange to assess the situation regarding the publication of environmental reports. The results showed a slow-down in the number of companies publishing reports. However, there was more response to the needs of a wider audience. There was also increasing focus on sustainability reports in combination with company reports. We also carried out a survey targeting the reports published from 2000~2003 by the automobile, chemical and beer brewing industries to analyse comparability among environmental reports from various industries. The conditions for increasing comparability are being put into place, but it is clear that there are issues remaining such as identification of the



Research area of the BE Project and the interrelationships between research themes



scope of documentation. We also conducted an internet survey concerning the needs of the readers of environmental reports. It could be seen that the report should put different emphasis on its content depending on who the main audience is. And it is necessary to respond to the needs of the reader by making the most out of various publication media while fulfilling accountability. After investigating the reports of 2002 and 2003, it was clear that despite a high interest, disclosure was often delayed and there was no progress in disclosing problems such as contaminated stock.

3) Research on Environmental Management Evaluation: All corporations, starting with global investment institutions, have started to be evaluated on their environmental management by various bodies including domestic consumer organisations. However, there have been various problems such as growing dissatisfaction on the part of the companies being evaluated. This research structurally grasped the change from the conventional forms of corporate evaluation to corporate evaluation which includes an environmental aspect. It also analysed examples of internal and external environmental management assessment. Various issues became clear including those concerning methods of corporate evaluation which develop indicators linking internal and external evaluation. Other issues made clear from the research dealt with evaluation results and feedback from institutes implementing evaluation, and structural issues regarding socio-economic systems for the promotion of industries conducting environmental management evaluation.

4) Other researches



various environmental reports

a) Research on Asia and the Pacific: Watching the formation of the east Asian economic sphere, we implemented comparative research on corporate environmental management in Japan, China and South Korea. In concrete terms, we conducted a survey of corporations in China and South Korea based on a survey carried out each year by the Japanese Environment Ministry. We then compared the results from the three countries. The results showed that Chinese corporations are making good progress on policies concerning the setting up of environmental goals but the introduction of management tools such as LCA and environmental reports has been slow. On the other hand, Korean corporate environmental management was shown to have made great progress over the one-year period.

b) Creation of a Network: For a 10-month period, we were joined by a researcher from the Tellus Institute (Boston, USA) and deepened information exchange on environmental accounting and servicing. We also cooperated with the Wuppertal Institute (Germany) and with the support of the Japanese-German Centre of Berlin, a symposium was held in Berlin on October 13 and 14 with the theme of "Market Governance for Sustainability". About 80 researchers and business persons exchanged opinions on matters such as eco-design, innovation, energy and incentives.

Looking Towards the Third Phase

At the Kansai Research Centre, the Third Phase Strategic Research "Business for Sustainable Society (BSS)" project was launched, following on from the "Business and the Environment" project. With ever more severe restrictions on the global environment expected in the future, we are planning to conduct research on what kind of choices local society and businesses will make in the medium and long term, regarding new development scenarios for a sustainable society. We will focus on showing these choices from the viewpoint of environmental business and environmentally-balanced technological and local systems. This work on approaches and directions in relation to "business and the environment" from a wider viewpoint, will be carried out in coordination with other research institutes both here and abroad, as well as businesses in the Kansai area.

Long-Term Perspective and Policy Integration Project (LTP)

The aim of Long-Term Perspective and Policy Integration (LTP) project is to conduct cross-cutting research for sustainable development in Asia and the Pacific, in collaboration with other IGES projects.

1. Asia-Pacific Environmental Innovation Strategy Project / Research on Innovative and Strategic Policy Options (APEIS / RISPO)

Asia-Pacific Environmental Innovation Strategy Project (APEIS) is an international joint project with participants from research institutes connected with the environment and development, as well as other international organisations and policy makers from countries in the Asia-Pacific region. The main aim of APEIS is to develop support tools for policy makers based on technical information, as well as proposing policy options. At the same time, it proposes innovative and strategic policy options to promote environmental innovations in the region. APEIS is made up of three sub-projects: integrated environmental monitoring (IEM); integrated environmental assessment (IEA), and research on innovative and strategic policy options (RISPO).

APEIS/RISPO, under the charge of IGES, brings together an international joint research team made up of research institutes and international organisations from about 20 countries across the Asia-Pacific region to work on 8 research sub-themes setting up, for example, innovative financing mechanisms for renewable energy development and environmentally sustainable transport systems for urban areas. We also are implementing research in conjunction with other IGES projects.

The LTP project aims to propose "Strategic Policy Options" by March 2005, and in FY 2003, we made full use of the cooperative system established amongst research institutes in the region. We continue to conduct research into good practices based on written surveys and actual field studies in order to formulate a "Good Practices Inventory" as a base for policy options. We also looked into frameworks for strategic policy options based on the good practices that were collected. In March 2004, the Second RISPO Plenary workshop was

held in Japan so that the researchers and policy makers from each country taking part in APEIS/RISPO could share research results so far and discuss directions in strategic policy options.

2. Asia-Pacific Forum for Environment and Development (APFED)

APFED activities will continue until the end of 2004. Now in the last stages of its study, APFED is making preparations for a final report and the implementation of the 3 commitments in the APFED Message. In 2003 there were two substantive meetings and a series of meetings supporting APFED activities.

The LTP project was able to raise the level of expertise in working towards the development of a draft for the APFED final report. A zero draft was prepared by the LTP project, which acts as the APFED secretariat, and discussions on the zero draft were held at the Fourth Substantive Meeting in Mongolia in August 2003. Taking on board comments from APFED members in this meeting, the LTP project formulated the first draft with the cooperation of the United Nations University (UNU) and the United Nations Environment Programme (UNEP). In preparation for the first draft, there were Expert Group meetings held in the Philippines and the Republic of Palau. Furthermore, there was a Multi-stakeholder Meeting in Sri Lanka in March 2004, in order to closely examine the first draft.

The LTP project also works tirelessly to implement the APFED commitments, particularly in developing inventories for the capacity building programme and examples of best policy practices. With the cooperation of APFED members, we have collected more than 80 examples of best policy practices and we have developed the Best Policy Practices Database to be announced at APFED 5. The Best Policy Practices workshop was held in December 2003 at IGES headquarters. About 7 members of APFED were chosen to participate and there were intense discussions on basic Best Policy Practices and their future use. In addition, we gathered and analysed information about the capacity building programme, through information submitted by



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APFED members.

3. Environmental White Paper for Sustainable Development in the Asia-Pacific region (tentative title:IGES White Paper)

At the Board of Directors Meeting in February 2001, it was decided that the IGES White Paper (tentative title) should be formulated and published as a IGES-wide initiative. The IGES White Paper aims to offer innovative policy options and strategies for sustainable development in the Asia-Pacific region through a cooperative effort involving all IGES research projects and the results then disseminated on a wide scale. The LTP Project is serving as the overall coordinator, but this project had the participation of all IGES projects and the Secretariat.

A task force was established made up of representatives from IGES projects, Secretariat staff and a number of outside experts. They took the initiative by identifying the elements that should be included in the project plan and White Paper. As a result of such study, the task force established the themes of the IGES White Paper to analyse a vision of environmental governance in Asia, based on changes that are making progress in the Asia-Pacific region, such as globalisation, decentralisation, and democratisation.

The work of the task force was subsequently picked up by a core team of outside experts and LTP research staff and whilst this core team drafted a general introduction of 3 chapters for the IGES White Paper, the remaining chapters were formulated by staff from each of the IGES projects. In FY 2003, a draft of each chapter was completed but because the content was inconsistent, we are continuing to develop the details in FY 2004.

4. Priority Report on Sustainable Development in the North East Asia Sub-region

From 2003 to 2004, the United Nations Regional Resource Centre for Asia and the Pacific (UNEP-RRCA.P.) worked on the preparation process for the World Summit on Sustainable Development (WSSD) and subsequently towards sustainable development for the Asia-Pacific region post-WSSD. With an aim to grasp the practical issues, it has formulated a priority report on 5 sub-regions in the area (North East Asia, South East Asia, South Asia, Central Asia and the Pacific sub-region). IGES was assigned to formulate the Priority Report on Sustainable Development in the North East Asia Sub-region. For this study, the LTP project conducted written surveys and hearings on priority

issues in the North East Asia sub-region such as air pollution, water quality, marine environment degradation, soil erosion and desertification, destruction of forests and loss of biodiversity, energy issues, poverty, population issues and organisation, food safety, and sustainable industry and consumption. We formulated the report by gaining information from IGES projects, government officials from each country involved, researchers, NGOs and other international organisations. It is expected that this report on North East Asia sub-region will be published by the UNEP in conjunction with other similar report from the other sub-regions, to form a "Priority Report on Sustainable Development in the Asia-Pacific Region" (tentative title).

5. State of the Environment Report 2005 for North East Asia Sub-region

Every five years, the UN Economic and Social Commission for Asia and the Pacific (UNESCAP) holds the UNESCAP Ministerial Conference on Environment and Development (MCED). The 5th MCED conference is scheduled for March 2005 in South Korea and UNESCAP is making progress in formulating the State of the Environment Report in Asia and the Pacific Report 2005 (SOE 2005) in time for the meeting. IGES has been asked by UNESCAP to write one part of the report, namely the chapter on the North East Asia sub-region, and we are making good progress in its formulation. We are hoping to submit a chapter on the most important environmental issues in the North East Asia sub-region, such as soil erosion, loss of biodiversity, degradation of fresh water resources, industrial pollution, issues on cleaner production and energy, and marine pollution, by gathering information on the causes, current situation and measures taken with regard to the issues.

As agreed at the Expert Group Workshop for SOE 2005 hosted by UNESCAP (Bangkok, September 2003), and following the basic formulation of the report and the main contents of each chapter, the LTP developed a first draft of the chapter through accessing information from IGES researchers, government officials and other international organisations as well as using the experiences and expertise accumulated thus far.

From April 2004, this draft will be reviewed by

experts appointed from each country in the North East Asian sub-region, who will make improvements on the chapter. It is expected that the report will be completed by the end of 2004.

6. Environmental industry sub-project

The Environmental Industry (EI) sub-project launched as a sub-project of the LTP project in fiscal year 2002, conducted studies on: 1) major issues facing the development of environmental industries (environmental technology and hardware and environmental management services) in the four selected Asian countries (China, India, Indonesia and the Republic of Korea) and 2) national government policies to deal with those issues. In June 2003, EI sub-project, inviting a researcher from the United States, extended the discussion at the 2nd Workshop to the contributions of international organisations, foreign multinational corporations and intercity cooperation on the development of environmental industry in the target countries. The results of the EI sub-project resulted in the publication of an IGES report on "Environmental Industry Development in Selected Asian Developing Countries; China, India, Indonesia and Republic of Korea".

Looking Towards the Third Phase

FY 2004 will be the final year for both APEIS / RISPO and APFED, which have been implemented since FY 2002. Therefore we will be compiling the final results of the research done so far.

With regards to the research plan for Phase 3, we will continue to look closely at the research concept and implementation plan in preparation for the start of Phase 3 in April 2004.