

# Global Environment Centre Foundation

Annual Report 2007



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\* All years referred in this annual report are fiscal years.



## Foreword

There are two remarkable movements concerning climate change issues in 2008. One is that the Kyoto Protocol entered its first commitment period, in which individual countries are supposed to achieve designated reduction targets for greenhouse gas emissions. In Japan, greenhouse gas emissions increased remarkably in the residential and commercial sectors in particular in 2006, up 6.2% from the base year (1990). To achieve Japan's reduction target of 6%, all classes and sectors of Japan's population are required to make intensified efforts.

The other is the G8 summit held in the vicinity of Toyako (Lake Toya), Hokkaido, Japan, in July 2008. The Toyako Summit focused on climate change issues as its main theme. Japan, as the chair country, has recently stated its position to the world, that measures must be taken immediately to combat climate change, not only by developed countries, but also involving developing countries where greenhouse gas emissions are continually increasing.

The Global Environment Centre Foundation (GEC) was established in 1992 as a support body for the United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC), since which time we at GEC have focused our activities on the transfer of Environmentally Sound Technologies (ESTs) in order to help realize environmental conservation and sustainable development in developing countries.

In 2007, GEC implemented the Clean Development Mechanism (CDM)/Joint Implementation (JI) Feasibility Study Programme, commissioned by the Ministry of the Environment, Japan in order to promote global warming countermeasures leading to sustainable development. Furthermore, in addition to accepting the commission of the Japan International Cooperation Agency (JICA) to train environmental policymakers and other personnel from developing countries, GEC has been actively tackling other environmental issues, such as implementing projects to transfer Japan's "eco-town" concept to cities in developing countries, in collaboration with IETC.

GEC will continue to promote such initiatives in the future, seeking to contribute to international cooperation relating to the environment, while collaborating with our affiliated organizations, and striving even harder towards conservation of the global environment.

It is our hope that, through this annual report, we will be able to foster a general understanding of GEC's activities, and we look forward to your continued support and cooperation in the future.



September 2008

A handwritten signature in black ink, reading "H. Miyahara" in a cursive style.

MIYAHARA, Hideo

President

Global Environment Centre Foundation

## Activities in Fiscal Year 2007

In order to promote UNEP DTIE IETC's activities in disseminating information on Environmentally Sound Technologies (ESTs) and technology transfer, GEC and IETC jointly conducted preliminary studies in Bandung, Indonesia, and Penang, Malaysia, which are designated as eco-town target cities, thereby confirming the local situations and challenges. GEC also participated in and cooperated with an eco-town-related meeting and forum that were co-hosted by IETC and Kawasaki City, and collected and provided related information.

Concerning the environmental technology database NETT21, GEC undertook questionnaire surveys and interviews targeted at business entities etc., following a preparatory study involving the "Cleaner Production Technology in Japan" database, conducted in 2006. Full-scale database updating was carried out based on information and data collected through the abovementioned surveys.

As the three-year environmental conservation project involving local residents in the Tha Chin River Basin, Thailand, ended in 2007, GEC formulated the complete version of the "Environmental Reading Material." GEC also held a forum commemorating the completion of the Reading Material.

GEC also continued our support for the "Osaka-Asia 3R Technology Support Project" initiated by Osaka Prefectural Government, and cooperated in seminars held in Jiangsu Province, China, and Hanoi, Viet Nam.

In response to the increasingly feared environmental deterioration in Ha Long Bay, Viet Nam, which is inscribed on the World Heritage List, GEC conducted a preliminary study in cooperation with the Osaka Prefecture University to identify the local situation and challenges, and examined the required measures to be taken in the future, thereby preparing for the start of a project aimed at improvement of local residents' lives and the in-Bay environment.

In terms of our contribution to combating global warming, GEC continued efforts in 2007 to select more feasible CDM/JI projects and ensure appropriate implementation and progress of these projects, as the secretariat of the CDM/JI Feasibility Study Programme commissioned by the Ministry of the Environment, Japan. GEC also held a symposium to provide beneficial information to businesses involved in CDM/JI, as well as collecting and disseminating additional information through participation in international meetings on climate change.

GEC operated seven JICA training courses with the aim of fostering human resources in developing countries, including two new courses which were opened in 2007: "Waste Effluent Pollution Control Caused by Mining and Manufacturing Industries for Central and South America" and "Young Leaders of the Environment from Latin American Countries." GEC also held a one-day seminar and a workshop in the Philippines, as a part of a follow-up for former training participants.

GEC's work to spread awareness of Environmental Management Systems (EMS) included organizing its "Internal Environmental Auditor Training Course."

UNEP Special Envoy Ms. Tokiko Kato visited Viet Nam, where she hosted a concert advocating the importance of protecting the environment.

During 2007, GEC held a symposium to commemorate the 15th anniversary of our founding. Also, publicity of GEC activities has been promoted through the issue of newsletters and an annual report and through participation in various environmental events.

## Promoting UNEP DTIE IETC's Activities of Disseminating Information on Environmentally Sound Technologies (ESTs\*) and Technology Transfer

### Environmentally Sound Industrial Development and Eco-Town\* Development Project in the Asia-Pacific Region

In Asia, where economic development is ongoing, there is growing interest in the concept of eco-towns as a means of pursuing a sustainable society while achieving a balance between the environment and the economy. Within this context, IETC initiated its eco-town project in 2004 to develop eco-towns in the Asia-Pacific region, based on the lessons learned from Japan's own eco-town development experiences. GEC has supported this project.

IETC and GEC visited Bandung, Indonesia, one of the eco-town target cities, from 2 to 7 October 2007, where we conducted a preliminary survey for starting up an exchange system for wastes emitted by business entities. We exchanged opinions with the Bandung municipal authorities, and toured businesses and industries of various scales to identify the present status of waste management and challenges for effective use of waste. From 27 to 29 March 2008, IETC and GEC visited Jakarta, Indonesia to attend the Bandung Eco-Town Project Meeting where representatives of the Indonesian Ministry of the Environment and the city of Bandung, West Java, got together to share information and knowledge about various issues concerning the Project including the eco-town concept and the progress of the Project. During the meeting, an agreement was reached on further promotion of the Project in Bandung.

GEC also visited Penang and Kuala Lumpur, Malaysia, from 26 February to 6 March 2008. In Penang, we checked the progress of the eco-town project, as well as that of a related research project conducted by the Socio-Economic & Environmental Research Institute (SERI). We also gathered information on waste management in Penang Cyber City, a target area of the eco-town project. In Kuala Lumpur, we confirmed the development status of a nearby industrial park and other establishments, and undertook research on the systems required to develop them into an eco-town as proposed by UNEP.

In the future, IETC and the governments of Penang and Bandung will continue to exchange opinions on promotion of the eco-town project, thereby pushing forward the actual eco-town development.

### Eco-Town Project Activities

From 22 to 25 October 2007, IETC and Kawasaki City co-hosted the UNEP Eco-Town Project Meeting, with the participation and cooperation of GEC. At this meeting, representatives gathered from Penang, Malaysia and Bandung, Indonesia, the target cities of eco-town development, as well as from Danang, Viet Nam, and Mumbai, India, which are increasingly interested in future eco-town development. At one of the sessions of this meeting, GEC made a presentation entitled "Lessons Learnt from Green Procurement\* in Japan." A public forum was held on 24 October, where representatives of the four cities presented and exchanged opinions actively on present eco-



Exchange with Bandung City  
From left: Dr. Siswadi, City Secretary of Bandung City Government  
Dr. Srinivas, IETC Programme Officer



Meeting with the Malaysian Industrial Development Authority



Presentation by Dr. Srinivas,  
IETC Programme Officer

#### ESTs

Environmentally Sound Technologies, as defined in Agenda 21, should protect the environment, are less contaminative, use various resources in a more sustainable manner, recycle more of their wastes and products and handle residual waste in a more acceptable manner than the technologies for which they were substitutes.

#### Eco-Town

The Eco-Towns developed in Japan utilize a framework whereby environmentally-sound enterprises are built on accumulated land using local technologies and industries, thereby stimulating the local economy and ensuring employment as well as simultaneously achieving waste management and conservation of water and air quality in accordance with the Zero Emissions concept.

#### Green Procurement

an initiative which gives priority to environmental friendliness when choosing a raw material, ingredient, product or service for procurement (purchase)

town activities and possible follow-up activities in the future.

From 21 to 22 January 2008, IETC and Kawasaki City co-hosted the “4th Asia-Pacific Eco-Business Forum—Urban and Industrial Symbiosis”, in which GEC also participated and cooperated with. There were 21 environmental administrative representatives in attendance at this forum, from Bandung in Indonesia, Matale in Sri Lanka, and Dalian and Liaoning Province in China. The participants made presentations and there was an active exchange of opinions on eco-town-related activities and challenges in multiple sessions. GEC collected information on the future direction of the eco-town project, and the progress of eco-town development in Penang and Bandung. GEC also presented our reports: “Eco-Towns in Japan,” “3Rs Technologies and Techniques in Japan” and “Legal and Other Support Systems for Eco-Towns in Japan,” as reference materials for the participants.

### Promoting the Spread of Information on ESTs

With regard to GEC’s environmental technology database NETT21\*, we undertook a full-scale data collection process, following the preparatory study concerning the “Cleaner Production Technology in Japan” database conducted the previous year. While the existing Cleaner Production (hereafter “CP”) technology database is mainly focused on technological information concerning manufacturing processes, the additional CP data includes information from the service industry, including banks, chain stores and other service businesses, as well as environmentally-friendly activities carried out by business entities. These additional data are published together with the conventional database. We sought to ensure the reliability of the updated databases “Water Pollution Control Technology in Japan” and “Waste Management Technology in Japan” by confirming the registered data with their providers.



Environmental Technology Database “NETT21”

### Disaster Prevention and Management

Disaster prevention and management that aims to mitigate disaster impacts caused by inappropriate environmental management in developing countries is one of the IETC’s three focal areas.

In 2007, GEC classified the disaster prevention measures taken by Japanese local governments, which have experienced a number of urban disasters, in terms of environmental considerations. Subsequently, GEC formulated basic materials to provide pertinent information to developing countries. On 14 March 2008, GEC and IETC jointly held a meeting entitled “Brainstorming Meeting on ‘Urban Risk Reduction and the Environment Learning from Japan’.” Organizations involved in disaster management in the Kansai region attended this meeting, and the participants deepened their understanding of the measures taken by Japanese local governments to deal with urban vulnerability. The participants also discussed measures that could be taken by local governments in other countries to reduce urban vulnerability, or to alleviate disaster-related risks.



Brainstorming Meeting

#### NETT21

##### (New Environmental Technology Transfer in the 21st Century)

A database developed by GEC from 1996 onward to disseminate information on Japan’s environmental technologies for the purpose of promoting EST transfer in developing countries. NETT21 currently offers approximately 1,400 items of technical information across ten databases.

While NETT21 forms the core of the information GEC transmits on ESTs, the originally published data has since become outdated. We therefore intend to carry out consecutive reviews to deliver further improvements to the database content. (Please refer to page 24 for details.)






## Environmental Conservation Activities Involving Local Residents of Thailand's Tha Chin River Basin\*

The Tha Chin River\* flowing west of Bangkok is reputedly the most polluted river in Thailand. At the request of the Thai Government, GEC worked with a support team consisting of experts in environmental activities, and in conjunction with Mahidol University's Faculty of Environment and Resource Studies; the Pollution Control Department (PCD), the Ministry of Natural Resources and Environment of Thailand; the Regional Environment Office 5 (REO5); and other related organizations, in order to strengthen the conservation activities of local residents from the four provinces occupying the river basin.

In 2007, GEC formulated the complete version of the "Environmental Reading Material\*," and supported the holding of a forum commemorating the completion of this reading material. This forum also aimed at disseminating environmental activities into other regions, through various events including a panel discussion and an environmental seminar using the "Environmental Reading Material."

As a result of our environmental support activities, local residents have deepened their shared understanding of environmental information collected and sorted from the four provinces in the basin. The basin leaders are conducting regular exchange activities, including the presentation of voluntary idea proposals concerning the formulation of the "Environmental Reading Material." This three-year project started in 2005 and was completed in 2007. It is hoped that the "Environmental Reading Material" will be utilized effectively for the Tha Chin River Basin and will be reviewed periodically for any necessary revisions, and that the number of young local leaders dedicated to environmental restoration will be increased through the autonomous implementation of seminars, forums and other local activities.

### Field Support Activities in 2007

| Schedule  | 3-8 June 2007  | 24-28 October 2007   | 16-20 January 2008   |
|---|--|--|--|
| Purpose   | The 5th Tha Chin River Basin Leaders Meeting etc.  | Stakeholders' meeting etc.   | Forum Commemorating the Completion of the "Environmental Reading Material" etc.  |
| Contents  | At the 5th Tha Chin River Basin Leaders Meeting, various challenges and points requiring improvement in the draft version of the "Environmental Reading Material" were reviewed after considering reports on how it is actually used. Participants confirmed a policy for formulating the complete version, and exchanged opinions on how the material could be used more effectively. They also participated in the events of the World Environment Day, organized by REO5. | Stakeholders examined the content of the completed version of the "Environmental Reading Material," how it could be used effectively in the future, and the agenda of the Forum Commemorating the Completion of the "Environmental Reading Material." They also discussed how to ensure sustainable use of the "Environmental Reading Material" and its revision as necessary through collaboration between local residents and related institutions, referring to actual examples in Japan. | At the panel discussion of the Forum Commemorating the Completion of the "Environmental Reading Material," there was a vigorous exchange of opinions concerning the roles of individual entities in the formulation of this reading material, and how it could be used effectively in the future. An environmental seminar was also held using the "Environmental Reading Material," where an instructor explained its content and sought children's remarks and opinions. |
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Children's presentations on environmental awareness</p> </div> <div style="text-align: center;">  <p>Leaders Meeting</p> </div> <div style="text-align: center;">  <p>Commemoration Forum</p> </div> </div> |  |  |  |

### Environmental Conservation Activities Involving Local Residents of Thailand's Tha Chin River Basin

Implemented for three years with the subsidies of the Japan Fund for Global Environment of the Environmental Restoration and Conservation Agency.

### Tha Chin River

Length: 320km  
Watershed: 12,000km<sup>2</sup>  
Inhabitants: 2.5 million



### Environmental Reading Material

A text which explains the Tha Chin River and environmental activities of the four provinces straddling it in an easy to understand format featuring children's drawings. The material was distributed to elementary schools along the Tha Chin River basin with the aim of raising awareness of residents' environmental conservation activities.

**3R**

Reduce, Reuse and Recycle. A basic concept espousing treatment of waste materials in that order to create a society which generates the minimum possible amount of waste. In other words, this concept describes the attempt to foster a “recycling-oriented society” which minimizes the impact upon the environment by not generating waste, and reusing it or recycling its resources when you do to significantly decrease the consumption of resources and waste created and promote effective resource use. The 3R concept also forms the cornerstone for the promotion of Japan’s recycling laws such as the Container and Packaging Recycling Law, the Home Appliance Recycling Law, the Construction Material Recycling Law, the Food Recycling Law and the End-of-Life Vehicle Recycling Law.

**Osaka Prefecture 3R Technology Seminar**

Participants: Approx. 120

**Viet Nam-Osaka 3R Technology Seminar**

Participants: Approx. 120

**Ha Long Bay**

Located northwest of the Gulf of Tonkin in the northern part of Viet Nam, Ha Long Bay is a place world-famous for its scenic beauty and was placed on the UNESCO World Natural Heritage List in 1994.



Ha Long Bay



A village of residents living on the water

**Osaka-Asia 3R\* Technology Support Project**

In 2006, Osaka Prefectural Government established the Osaka-Asia 3R Technology Support Consortium, and commenced a project to help provide technological support and human resource development to promote recycling-oriented societies among Asia’s developing countries. At the commission of this consortium, GEC is supporting the abovementioned project through the effective use of various resources that we have accumulated to date.

In 2007, the “Osaka Prefecture 3R Technology Seminar\* and Eco-Industry Forum” was held on 1 August in Jiangsu Province, China, aiming at the introduction of 3R technologies, as well as the promotion of exchanges between waste-related enterprises in Osaka and Jiangsu Province. This seminar was sponsored by Osaka Prefectural Government and co-hosted by the Jiangsu Provincial Government. GEC cooperated in the organization of this seminar. The keynote address was given by Professor Hiroyuki Yoshida, Graduate School of Osaka Prefectural University. The seminar schedule included an overview of an eco-town in Osaka, a presentation on the waste recycling business, and a report on the present status of solid waste management in Jiangsu. Following the seminar, the Eco-Industry Forum was held to provide an opportunity for business-matching between Jiangsu businesses that have problems in waste treatment and member companies of the Osaka Prefecture Industrial Waste Association.

Also, the “Viet Nam-Osaka 3R Technology Seminar\*” was held on 22 January 2008, in Hanoi, Viet Nam with the aim of introducing public and private initiatives for sound waste treatment in both Japan and Viet Nam. This seminar was co-hosted by Osaka Prefectural Government and the Ministry of Natural Resources and Environment of Viet Nam with the cooperation of GEC. The seminar schedule included a keynote address by Dr. Masanori Fujita, President of Kochi National College of Technology, and a presentation by the Ministry of Natural Resources and Environment of Viet Nam. Subsequently, there were presentations on public and private initiatives in Japan and in Viet Nam, such as sound treatment and recycling of industrial waste, the 3R initiative in Hanoi, and JICA and JETRO projects in progress in Viet Nam.



Osaka Prefecture 3R Technology Seminar in China

**Ha Long Bay\* Project in Viet Nam**

Ha Long Bay located in Quang Ninh Province, Viet Nam is in danger of being excluded from the World Heritage List, due to recent environmental deterioration, and immediate countermeasures are required. In this context, GEC and Osaka Prefectural University conducted a preliminary survey for a project aimed at the establishment of a resource-recycling system in Ha Long Bay, jointly operated by local residents, the tourism industry and local governments. The goal is to improve both the lives of residents as well as the in-bay environment. From 18 to 26 September 2007, we visited Hanoi and Halong, Viet Nam, and checked the status of environmental deterioration and related problems, needs and other local circumstances.

In the areas surrounding Ha Long Bay, industrial activity is extremely vigorous, including the coal, cement and other industries. Factory effluent is being discharged into Ha Long Bay from factories in these areas without adequate treatment. Such effluent is one of the largest



Meeting with Youth Union



pollution sources in Ha Long Bay. Another cause of environmental pollution in the bay is waste and household wastewater emitted from sightseeing boats operating in Ha Long Bay and from residents living on the water. Based on this background of environmental deterioration and the results of the preliminary survey, we plan to tackle the reduction of waste and work on measures against household wastewater. It is also planned that environmental education will be provided with the aim of restraining waste generation and promoting environmental conservation measures, and that a monitoring survey on water quality will be conducted with the involvement of local residents. In addition, we will provide assistance for the establishment of local systems that would facilitate combined regional efforts to promote independent and sustainable environmental measures.

This project proposal was adopted informally as a JICA Grassroots Technical Cooperation Project (partner type) by JICA in March 2008. We seek to obtain approval for this project from the government of Viet Nam, and commence full-scale activities by the end of 2008.

#### CDM (Clean Development Mechanism)

One of the flexible mechanisms (Kyoto Mechanisms) introduced to achieve the greenhouse gas reduction targets contained in the Kyoto Protocol\*. When a developed country (investor country) provides funds and technical assistance for the implementation of a project which leads to a reduction in greenhouse gas emissions in a developing country (host country), credits (CER\*) are issued for the amount of reduced emissions. A developed country can then use these credits to achieve its own emission reduction target.

#### JI (Joint Implementation)

Like CDM, Joint Implementation is also a Kyoto Mechanism. A system whereby a developed country cooperates to implement projects to reduce greenhouse gases, with one developed country (the host country) issuing credits (ERUs\*) and the other developed country (investor country) able to use those credits to achieve its own emission reduction target.

#### Kyoto Protocol

The International Instrument adopted at the 3rd Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC\*) which sets out a framework for international efforts to mitigate climate change. The protocol ordains targets for the reduction of greenhouse gas emissions in developed countries, as well as established flexible mechanisms to achieve these targets in the form of the Kyoto Mechanism (Clean Development Mechanism (CDM), Joint Implementation (JI) and Emissions Trading (ET).

### Contribution to Measures for the Mitigation of Climate Change

#### CDM\*/JI\* Feasibility Study Programme

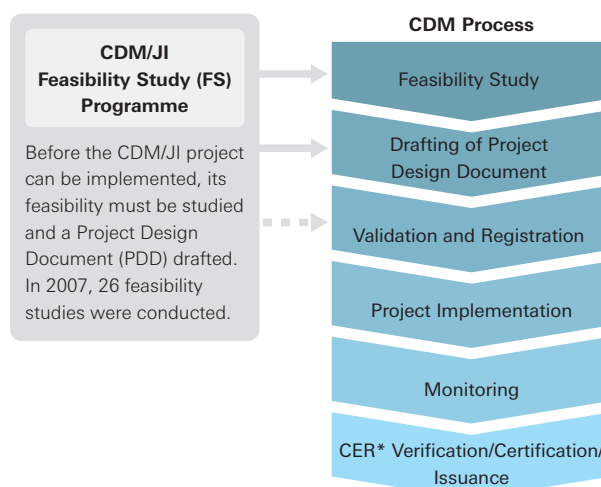
Since 1999, GEC has continued efforts to unearth promising projects and accumulate knowledge in our role as the secretariat of the CDM/JI Feasibility Study (FS) Programme at the commission of the Ministry of the Environment, Japan.

In 2007, GEC sought to select more feasible projects through the adoption process of FS proposals, by undertaking preliminary interviews with the applicants and other measures. As a result, 27 FSs in fields such as waste management, biomass utilization and energy efficiency improvement were adopted. Among them, 26 were completely implemented (one was cancelled before its completion, and two were contracted with the Ministry of the Environment, Japan). Furthermore, GEC assisted in the development of the Project Design Documents (PDDs) which are required for the validation of eligibility of these projects for the CDM/JI projects. In addition, GEC provided specific advice toward the realization of the projects, through the expert committee under GEC.

GEC has published on our website the results of the past FSs, information collected at intergovernmental conferences, and other useful resources, to promote the further development of projects by the private sector.

As the effects of the FS Programme since 1999, three new methodologies derived from the past FS have been approved by the CDM Executive Board (EB), five projects have been registered as CDM projects by the EB, one project has completed the registration request process, and three projects other than those mentioned above have been approved by the Japanese government.

#### CDM Flow & GEC Projects



### United Nations Framework Convention on Climate Change (UNFCCC)

Convention which sets out a scheme for international efforts to mitigate climate change

### CER (Certified Emission Reduction)

A credit issued in response to the amount of greenhouse gas reduction resulting from a CDM Project.

### ERU (Emission Reduction Unit)

A credit issued in response to the amount of greenhouse gas reduction resulting from a JI Project.

### 2007 CDM/JI Feasibility Studies

Please refer to the GEC website for further details on the study reports.



Biomass use in the electric arc furnace for steel manufacture (Indonesia)



Emission free community composting programmatic CDM (Philippines)

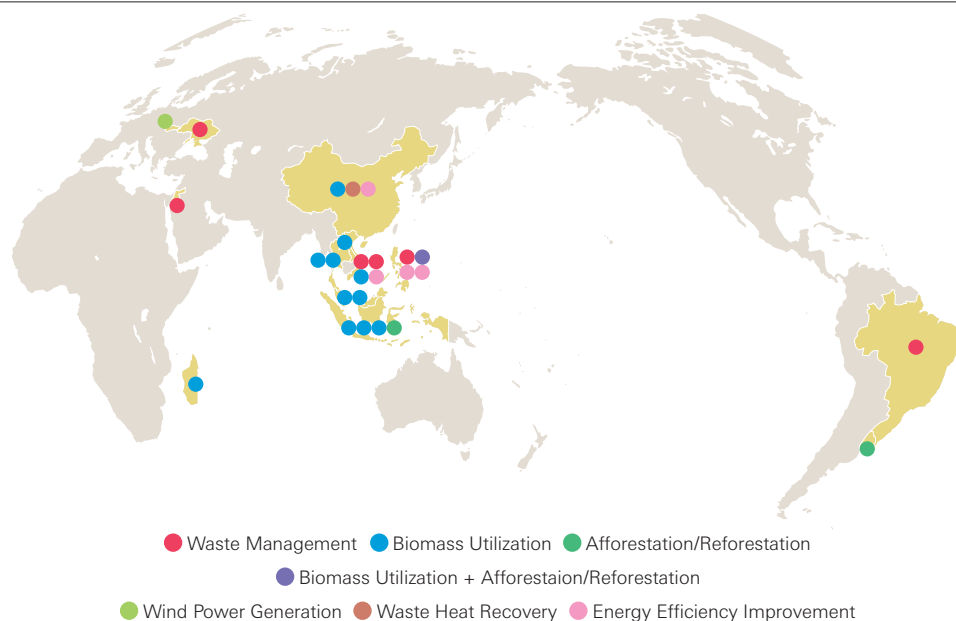
### List of 2007 CDM/JI Feasibility Studies\*

| Category  | Project   | Country     |
|---|---|-------------|
| Waste Management                                  | Emission Free Community Composting Programmatic CDM   | Philippines |
|   | Municipal Solid Waste 3R Promotion & Stabilization  | Viet Nam    |
|   | Utilization of Methane Gas at a Landfill Site in Irbid City   | Jordan      |
|   | Utilization of Methane Gas at a Landfill Site in Bela-Tserkov City                                  | Ukraine     |
|   | Biogas Electricity Generation through Anaerobic Digestion of Waste                                  | Viet Nam    |
|   | The Efficient Piggery Biogas Utilization Business   | Brazil      |
| Biomass Utilization                               | Methane Collection and Power Generation from Wastewater in Alcohol Factory                          | Thailand    |
|   | The Biomass Electric Generation System by the Phosphoric Acid Fuel Cells                            | Thailand    |
|   | Methane Recovery from Tapioca Wastewater  | Indonesia   |
|   | Biomass Use in the Electric Arc Furnace for Steel Manufacture                                       | Indonesia   |
|   | Jatropha Based Biodiesel-fuel Production Project  | Madagascar  |
|   | Methane Emissions Reduction by Composting Wastes from Palm Mill                                     | Malaysia    |
|   | Rural Electrification by Utilization of Biomass   | Laos        |
|   | Wastewater Treatment with Anaerobic Digester at Starch Processing Plant                             | Viet Nam    |
|   | Biomass-based Grid-Connected Electricity Generation Project   | China       |
|   | Feasibility Study on Biomass-based Electricity Generation Project <sup>1)</sup>                     | Indonesia   |
| Afforestation/Reforestation                       | POME Treatment Co-benefits CDM  | Malaysia    |
|   | Afforestation CDM for Community Development in Extensive Grazing Land <sup>2)</sup>                 | Uruguay     |
| Biomass Utilization + Afforestation/Reforestation | A/R CDM Projects Optimized to Serve Corporate Social Responsibility (CSR) Needs <sup>2)</sup>       | Indonesia   |
|   | Reforestation, Agroforestry and Biomass "Triple Benefit" CDM Project Research                       | Philippines |
| Wind Power Generation                             | Wind Power Electricity Generation   | Slovakia    |
| Waste Heat Recovery                               | Low Temperature Waste Heat Recovery and Utilization for Power Generation Project at Cement Industry | China       |
| Energy Efficiency Improvement                     | Promotion of Energy Saving Through Application of Programmatic CDM                                  | China       |
|   | The Building Energy Saving Programmatic CDM Project for the Telecommunication Company               | Philippines |
|   | Fuel Efficiency Improvement and Pollution Abatement in Public Transportation                        | Philippines |
|   | Energy Efficiency for Public Lighting Systems   | Viet Nam    |

1) The feasibility study for the project to introduce biomass power generation in Indonesia was cancelled before its completion, because implementation became difficult due to coordination problems with the counterparts.

2) Two feasibility studies for afforestation/reforestation projects have been contracted with the Ministry of the Environment, Japan.

### CDM/JI Feasibility Study Projects in 2007



## Hosting of “CDM/JI Symposium 2007”

GEC has hosted events annually since 2000 with the Ministry of the Environment, Japan, to provide valuable information to the public as well as to private entities interested in the CDM/JI.

GEC held the “Symposium on CDM/JI Feasibility Study Programme for Climate Change Mitigation 2007 (CDM/JI Symposium 2007)” in Tokyo and Osaka in October. At the symposium, CDM/JI FS entities (four in Tokyo and four in Osaka) reported the results of their studies undertaken in 2006, then experts reviewed these reports making useful comments based on the latest findings and information. Also featured at this symposium were expert presentations on: “Co-benefits Approach to Climate Change and CDM,” “Bio-Diesel Fuel CDM Projects,” and “The Up-to-date Information on CDM Project: Perspective from a Designated Operational Entity (DOE).” These presentations provided participants with the latest information from Japan and overseas on the global warming issue and the CDM/JI.

Participants also received a booklet on CDM/JI Symposium 2007 prepared by GEC, containing summary reports on FS conducted in 2006. This booklet is also available on the GEC website.



“CDM/JI Symposium 2007” in Tokyo

## Collection and Distribution of CDM/JI-related Information

GEC participated in the 13th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP13)\*, and the 3rd Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP3)\*, held in Bali, Indonesia, from 2 to 15 December 2007. GEC gathered information at the plenary sessions and side events, to publish on our website. GEC also set up an exhibit introducing the CDM/JI FS Programme commissioned by the Ministry of the Environment, Japan and made available the “CDM/JI Manual for Project Developers and Policy Makers—2007,” issued by the Ministry of the Environment, Japan. (This manual can be downloaded from the GEC website.) In addition, GEC made a presentation based on the achievements and lessons obtained from the CDM/JI FS Programme at a side event hosted by the Institute for Global Environmental Strategies (IGES).

GEC also collected and analyzed information concerning CDM methodologies, baseline setting and monitoring for JI projects, and other related issues, making the obtained information publicly available on the GEC website.



COP13

## Osaka CDM Network

The Osaka CDM Network provides information on the CDM and emission trading business through holding assemblages several times a year.

In 2007, the network invited experts and speakers from private companies carrying out advanced activities in the assemblages. Participants obtained not only the basic knowledge of CDM but also information on co-benefits, energy efficient products, and carbon dioxide capture and storage (CCS), and the latest trends as well as the possible expansion of emission trading business. The companies and organizations had opportunities to explain their own business and to consult with visitors interested in their activities.



Osaka Carbon Conference & Fair 2007

## “CDM/JI Symposium 2007”

Participants:

Tokyo: Approx. 260

Osaka: Approx. 130

## Conference of the Parties (COP)

The supreme decision-making body of the UNFCCC. Held annually.

## Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP)

The supreme decision-making body in regards to the implementation of the Kyoto Protocol. Held annually.

## Human Resource Development in Developing Countries

## Japan International Cooperation Agency (JICA) Group Training Project

GEC continued to operate four JICA-commissioned group training courses for engineers and government officials from developing countries, while also enhancing the courses' curricula. The courses offered were the Environmental Policy & Environmental Management Systems Course, the Pollution Controls for Hazardous Substances in the Environment Course, the Urban Solid Waste Management Course, and the Air Pollution Control Course. We also continued the China-Japan Policies of Climate Change and CDM Course, which was established anew in 2006 to meet the rapid rise in interest from China in CDM projects. In 2007, we further established the Waste Effluent Pollution Control Caused by Mining and Manufacturing Industries for Central and South America Course, as a regional training programme, and the Young Leaders of the Environment from Latin American Countries Course, as a JICA youth training programme, to meet the rising demand for training on environmental pollution in Latin America.

Before the commencement of each course, all participants presented a "Country Report\*" to share awareness of the issues facing their respective nations. Upon completion of the course, participants also made an "Action Plan\*" presentation, to define their goals upon returning home.

The four traditional courses will be retained through coordination with related organizations, adapting to changing needs as necessary, because there are still many enrollment requests from developing countries. At the same time, GEC will bolster collaboration with other research institutes and related organizations to meet new training demands.

## Country Report

A report prepared by each participant describing the environmental administration system, environmental situation and other related issues in his or her country.

## Action Plan

When the training is over, each participant works out action plans for environmental improvement in his or her country based on the findings and competence acquired through the training.

## Environmental Policy &amp; Environmental Management Systems Course

Starting in 1995 as the "Environmental Management Seminar", this course initially accepted participants from separate regions such as Asia and South America. In 2001 this regional enrollment system was abolished. In 2002 the curriculum relating to Environmental Management Systems was improved and the course was changed to its current name.

## Pollution Controls for Hazardous Substances in the Environment Course

Beginning in 1996 under the name "Heavy Metal and Hazardous Substance Pollution Control Course", the course name was later changed to "Heavy Metal and Other Hazardous Substance Pollution Control Course" in 2002 to reflect its newly expanded curriculum. The course name was changed yet again to its current title in 2006.

| Training period  | Nationality of participants   | Main course contents   |
|--|---|--|
| <b>Environmental Policy &amp; Environmental Management Systems*</b>    |   |  |
| 14 May–29 June 2007  | 11 participants from Kenya (2 participants), Laos (2 participants), Mauritius, Oman, Pakistan, Senegal, Serbia, Ukraine, Viet Nam | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Osaka City Environment Bureau</li> <li>• Nanko Plant, Kansai Electric Power Co., Ltd.</li> <li>• United Nations University, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• History of environmental administration in Japan</li> <li>• Outline of environmental legal system in Japan</li> <li>• Environmental management system, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Sewage treatment plant • Incineration plant</li> </ul> <p><u>Purpose</u></p> <p>To master pragmatic and practical methodologies, such as the framing of environmental policies, techniques of the environmental assessment, guiding corporation policies, Environmental Management Systems and methods of enlightening citizens</p>   |
| <b>Pollution Controls for Hazardous Substances in the Environment*</b> |   |  |
| 18 June–10 August 2007   | 7 participants from Algeria, Bangladesh, El Salvador (2 participants), Oman, Philippines, Viet Nam                                | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government</li> <li>• Research Institute of Environment, Agriculture and Fisheries, Osaka Prefectural Government</li> <li>• Environmental Management and Technology Center in Kansai</li> <li>• Minamata City • Toyama Prefecture, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• Introduction to hazardous metals • Air and water pollution control measures, etc.</li> </ul> <p><u>Practical training</u></p> <ul style="list-style-type: none"> <li>• Sampling and analysis of air and water, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Waste incineration plant • National Institute for Minamata Disease, etc.</li> </ul> <p><u>Purpose</u></p> <p>To develop well-qualified human resources who are able to collectively evaluate emission sources and environmental contamination by heavy metals and hazardous chemical substances and to establish preventive measures against environmental pollution</p> |



Exercise for operation of the environment impact assessment system



Stream measurement




### Urban Solid Waste Management\*

|                                  |  |  |   |
|----------------------------------|--|--|---|
| 28 August–<br>23 October<br>2007 | 9 participants<br>from Costa Rica,<br>India, Jamaica,<br>Mexico,<br>Sri Lanka<br>(2 participants),<br>Tunisia,<br>Zimbabwe<br>(2 participants) | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Osaka City Environment Bureau</li> <li>• Osaka City Institute of Public Health and Environmental Sciences</li> <li>• Fukuoka University, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• Outline of industrial waste control, etc.</li> </ul> <p><u>Practical training</u></p> <ul style="list-style-type: none"> <li>• Practice in designing a landfill site, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Recycling plant</li> <li>• Final disposing sites, etc.</li> </ul> <p><u>Purpose</u></p> <p>To develop leaders and core people who can play a major role in making solid waste treatment plans and in implementing treatment businesses in their countries</p> |  <p>Field trip to Kitakyushu Eco-town</p> |
|----------------------------------|--|--|---|

### Urban Solid Waste Management Course

Although originally known as the “Urban Waste Control Course” at its commencement in 1992 by the Osaka City Environmental Management Bureau, the course changed name to its current title in 1999.


### Air Pollution Control\*

|                                      |   |  |   |
|--------------------------------------|---|--|---|
| 25 September–<br>14 December<br>2007 | 8 participants<br>from Bolivia,<br>Botswana<br>(2 participants),<br>China, India,<br>Mexico, Peru,<br>Tunisia | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Osaka City Environment Bureau</li> <li>• Osaka City Institute of Public Health and Environmental Sciences</li> <li>• Osaka Environmental Technology and Research Co., Ltd.</li> <li>• Universities, etc</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• Basic knowledge on air pollution etc.</li> </ul> <p><u>Practical training</u></p> <ul style="list-style-type: none"> <li>• Measurement and analysis of flue gas etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Exhaust gas treatment facility</li> <li>• Monitoring stations, etc.</li> </ul> <p><u>Purpose</u></p> <p>To train engineers and administrative officials and to teach techniques for countermeasures against air pollution</p> |  <p>Analysis of sulfur dioxide</p> |
|--------------------------------------|---|--|---|

### Air Pollution Control Course

This course was originally initiated by the Environment Division of the Osaka City Environment and Health Bureau and Osaka City Institute of Public Health and Environmental Science in 1989 to provide training in the prevention of atmospheric pollution. GEC took over the running of the course in the year of its founding at which time the course was changed to its current name.

### China-Japan Policies of Climate Change and CDM\*

|                       |                               |   |   |
|-----------------------|-------------------------------|---|---|
| 15–28 January<br>2008 | 15 participants<br>from China | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Climate Experts Ltd.</li> <li>• Natsource Japan Co., Ltd.</li> <li>• Mizuho Information &amp; Research Institute, Inc.</li> <li>• New Energy and Industrial Technology Development Organization (NEDO)</li> <li>• Osaka CDM Network, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• CDM project case studies</li> <li>• PDD case reports</li> <li>• PDD draft guidance, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Power plant</li> <li>• Gas science centre</li> <li>• Biodiesel plant</li> <li>• Kyoto International Conference Center</li> </ul> <p><u>Purpose</u></p> <p>To provide technical support for discovery of Clean Development Mechanism (CDM) projects and help to enhance ability of China’s Ministry of Science &amp; Technology, local science &amp; technology agencies and local CDM centre personnel to unearth new projects</p> |  <p>Study tour of Nano-hana Project</p> |
|-----------------------|-------------------------------|---|---|

### China-Japan Policies of Climate Change and CDM Course

Amidst the backdrop of genuine efforts by nations to tackle global warming, this course was initiated in 2006 as a country-specific course in response to the high demand for CDM-related training in China, the largest producer of greenhouse gas emissions among developing countries.



### Waste Effluent Pollution Control Caused by Mining and Manufacturing Industries for Central and South America

Opened as a regional training course in 2007, aiming at analyzing national problems and proposing solutions in the form of policies and countermeasures, through sharing and exchanging opinions on examples in Japan, as well as on information, problems and solutions in participants' countries.

### Young Leaders of the Environment from Latin American Countries

Opened in 2007 as a sequel to the youth invitational programme operated by JICA, aiming at training human resources who will support the future development of their home countries.

### GEC Networking Project for Former Training Participants

There are 961 overseas GEC participants on the network in 106 countries. (as of Mar. 2008)

### One-Day Seminar

Held in countries where Network membership is high, the theme of each seminar is intended to reflect the specific needs of that country.

- Thailand & the Philippines (March 1999)
- Malaysia & Viet Nam (January 2000)
- Indonesia (February 2001)
- Egypt (March 2002)
- Thailand (March 2005)
- Cuba (March 2007)
- Philippines (March 2008)

### Waste Effluent Pollution Control Caused by Mining and Manufacturing Industries for Central and South America\*

|                    |  |   |
|--------------------|--|---|
| 4–22 February 2008 | 20 participants from Argentina (3 participants), Bolivia (3 participants), Chile (2 participants), Colombia (3 participants), Cuba (3 participants), Peru (3 participants), Venezuela (3 participants) | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Osaka City Environment Bureau</li> <li>• Osaka City Public Works Bureau</li> <li>• Osaka City Port and Harbor Bureau</li> <li>• Minamata City</li> <li>• Toyama Prefecture, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• Soil contamination control measures</li> <li>• Industrial wastewater control, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Mines</li> <li>• Treatment facility for wastewater containing heavy metals, etc.</li> </ul> <p><u>Purpose</u></p> <p>To propose effective solutions and policies to mitigate environmental destruction and pollution in relevant countries, caused by hazardous substances contained in effluent from mining and manufacturing industries</p> |
|--------------------|--|---|



Field trip to Hishikari Mine

### Young Leaders of the Environment from Latin American Countries\*

|                          |   |  |
|--------------------------|---|--|
| 19 February–5 March 2008 | 12 participants from Chile, Costa Rica (3 participants), El Salvador (2 participants), Haiti, Mexico (3 participants), Panama, Peru | <p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> <li>• Osaka City Environment Bureau</li> <li>• Osaka City Public Works Bureau</li> <li>• Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government</li> <li>• Osaka City Environmental Management Association</li> <li>• Matsushita Electric Industrial Co., Ltd, etc.</li> </ul> <p><u>Lectures</u></p> <ul style="list-style-type: none"> <li>• Waste disposal in Osaka</li> <li>• Global environmental problems - climate change, etc.</li> </ul> <p><u>Facility tours</u></p> <ul style="list-style-type: none"> <li>• Sewage treatment plant</li> <li>• Waste incineration plant, etc.</li> </ul> <p><u>Purpose</u></p> <p>To assist young leaders engaged in environmental conservation works in improving their level of knowledge and skills concerning the environment, and to promote mutual understanding and friendship between those young leaders and the Japanese through gatherings and home-stay programs.</p> |
|--------------------------|---|--|



Field trip to Nakahama Sewage Treatment Plant

### GEC Networking Project for Former Training Participants\*

In an effort to follow up on former JICA training participants and ascertain the needs of developing countries, GEC established the GEC Network for former training course participants in 1998, publishes the GEC PLAZA newsletter, an e-mail newsletter "Connect the World," and has conducted one-day seminars\* to consolidate our network through the exchange of information.

In 2007, GEC continued to be commissioned by JICA to operate the "JICA-GEC Network," a website exclusively for Network members, and made efforts to further improve the contents of the website and increase the participation of members by updating the top page on a weekly basis. In addition, we surveyed members after six or twelve months had elapsed since their return home, to ascertain how they had leveraged the knowledge and experience acquired from their training since their return, and monitored the progress of their action plans.

As GEC held a symposium to



One-day Seminar (Manila)

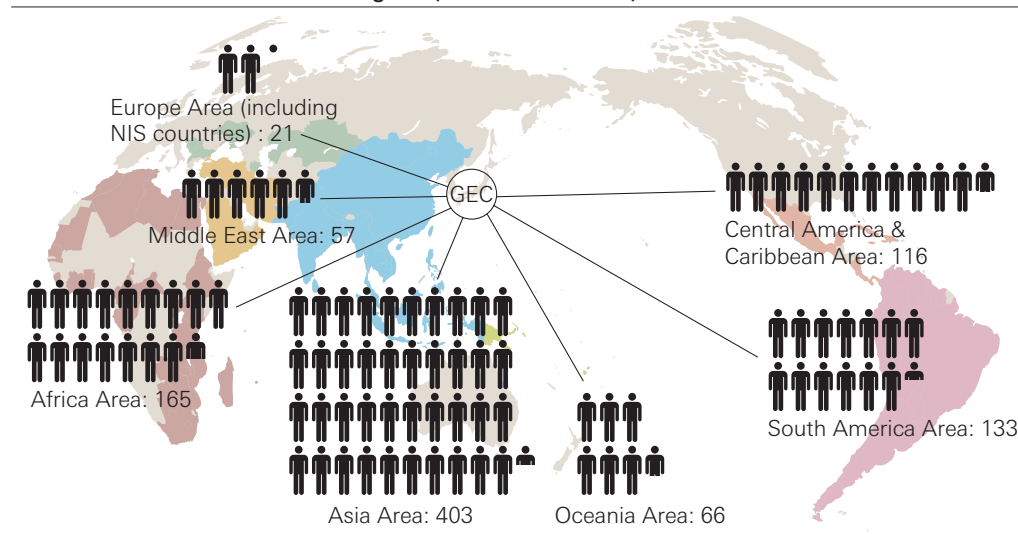


Workshop (Cebu)

commemorate the 15th anniversary of our foundation, we invited two former JICA training participants from Cuba and Lesotho, who reported at this symposium and JICA training sessions held at that time, on their activities after returning home, describing how they were leveraging the knowledge and experience that they acquired through their courses.

We visited the Philippines to hold an one-day seminar and a workshop, and visited landfill sites from 24 to 29 March 2008, with the support and cooperation of JICA. These seminar and workshop were focused on Environmental Management Systems (EMS) as well as climate change and CDM, based on the results of a questionnaire conducted in advance. When we held a seminar in Manila on 26 March, 17 participants attended, including former JICA training participants and their colleagues. Participants gained a deeper understanding of EMS and climate change through the lectures and presentation, and they organized a reunion to bolster their network further. At the workshop held in Cebu on 28 March, 27 participants gathered from a wide range of organizations including governmental agencies, business entities, universities and NPOs. Following lectures on EMS and climate change, participants asked a number of questions, and there was a vigorous exchange of opinions.

#### Network Member Distribution Diagram (As of March 2008)



## Dissemination of Environmental Management Systems (EMS)

### EMS Training Courses

Carrying on from 2006, the “Internal Environmental Auditor Training Course” was conducted three times in 2007. We also offered the “On demand seminars for EMS Implementation” a total of seven times.

### Dissemination of EMS Overseas

By enhancing the seminars on Environmental Management Systems in GEC-managed JICA training programmes, we have promoted the dissemination of EMS overseas including developing countries. As part of the Environmental Policies & Environmental Management Systems Course, we organized a six-day session using texts certified by the Institute of Environmental Management and Assessment\* for environmental auditor training. Such lectures on EMS have also been introduced to other JICA training courses, and efforts were made to improve the contents of the lectures. We also gave a lecture on EMS at the one-day seminar held in the Philippines in March 2008, in order to promote its dissemination.

#### Institute of Environmental Management and Assessment (IEMA)

U.K.-based organization which registers environmental auditors and carries out accreditation of educational establishments providing environmental training. By achieving a given exam score on the final day of the course, participants in the “Environmental Policy & Environmental Management Systems Course” are able to acquire a maximum of five of the ten points required to obtain the IEMA qualification of Associate Environmental Auditor.

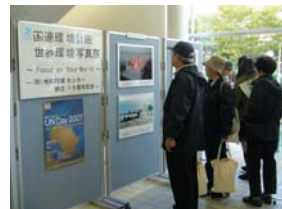
**GEC Publications**

Please refer to page 17.

**Promotion of IETC Projects & Joint PR**

GEC is involved in public relations efforts to raise awareness of IETC activities, by introducing IETC projects both in our newsletters (published in Japanese and English) and on our website.

In 2007, we held a panel exhibition to introduce IETC's activities at the "Nakanoshima Music Carnival '07 —Osaka Chinese Culture Festival," which was held in the area surrounding Nakanoshima Park, Osaka City, from 15 to 17 September. We also participated and cooperated in the "UNEP World Environmental Photo Exhibition —Focus on Your World," which IETC held at the Tsurumi Ward Community Center, Osaka City, from 13 to 21 October in concurrence with the symposium commemorating the 15th anniversary of GEC's foundation. At the "One World Festival," which was held at International House, Osaka, from 2 to 3 February 2008, we exhibited a joint booth with IETC. We introduced our respective activities by handing out brochures and newsletters, and displaying a panel exhibition on our activities there. GEC also cooperated in the talk event entitled "Changing the Global Environment through Financial Means," which was held concurrently with this festival, in commemoration of the 2008 G8 Finance Ministers Meeting, Osaka.



"UNEP World Environmental Photo Exhibition"



"One World Festival" (IETC & GEC's booth)

**Support for UNEP Special Envoy Activities****UNEP Special Envoy  
Ms. Tokiko Kato**

Since her appointment as UNEP Special Envoy in October 2000, Ms. Tokiko Kato has been actively involved in awareness-raising activities through the media, in addition to visiting areas of environmental concern both in Japan and overseas and encouraging the work of involved parties and NGOs. A report on Ms. Kato's activities as Special Envoy is available on the GEC website.



World heritage-listed  
Ha Long Bay



Performance with local  
singers

Since its commission by the Ministry of the Environment, Japan in 2001, GEC has provided support for the activities of the UNEP Special Envoy, Ms. Tokiko Kato\*, both in Japan and abroad, including visits to areas of environmental concern and encouraging the work of NGOs.

In 2007, Ms. Kato visited Ho Chi Minh City and Hanoi, Viet Nam, from 13 to 23 August. There she visited the Tu Du Maternity Hospital, Hoa Binh Village, an institution which works to restore the abilities of disabled children, and to facilitate their independence. To interact with the children, Ms. Kato sang songs and played the guitar. She also visited a reforestation area where mangroves had been eliminated during the Viet Nam War, as well as other reforestation areas promoted mainly with the assistance of JICA. Ms. Kato observed the social and environmental situation following the war, and studied the environmental improvement initiatives in progress. At Ha Long Bay, a World Natural Heritage site, she learned that problems of household wastewater and waste dumping were arising, due to the recent rapid development of tourism. At the conclusion of her visit to Viet Nam, she held a concert in Hanoi. At this concert, Ms. Kato sang "Diem Xua (Beautiful Past)," composed by the nationally-renowned Vietnamese composer, Trinh Cong Son. She also sang together with local singers, and emphasized the importance of environmental conservation through music.

Ms. Kato is currently UNEP's sole special envoy, and we intend to roll out even more projects in 2008 to help her spread awareness of the importance of UNEP's activities and environmental conservation.



Children in the mangrove reforestation area

## Hosting of Seminars and Symposia

### Hosting of the symposium commemorating the 15th anniversary of GEC's foundation

In 2007, GEC marked the 15th anniversary of our founding, and hosted a commemorative symposium at the Tsurumi Ward Community Center, Osaka City, Japan.

This symposium featured Mr. Ousmane Sankhon, Special Advisor to the Guinean Consulate, who spoke on environmental changes in Africa, the importance of environmental protection, and the necessity for technology transfer while considering the cultures and traditions of developing countries. The symposium also included a dialogue between Mr. Sankhon and Prof. Takeshi Hisano of Kwansei Gakuin University, as well as reports by two former JICA training participants, Mr. Luis Gomez (Cuba) and Ms. Matseliso Tsehlo (Lesotho), on their activities after returning home. Prof. Hisano commented on environmental problems in these two countries, such as soil degradation, deforestation, droughts and waterway pollution, referring also to the pollution problems that Japan experienced during its period of high economic growth.



Scene of the symposium hall

#### GEC 15th Anniversary Commemorative Symposium: "Thinking About Our World with Ousmane Sankhon"

|                      |  |
|----------------------|--|
| Date                 | 21 October 2007  |
| Organizer            | Global Environment Centre Foundation (GEC)   |
| Venue                | Tsurumi Ward Community Center  |
| Participants         | Approx. 500  |
| Backup Organizations | The Ministry of Foreign Affairs of Japan,<br>The Ministry of the Environment, Japan,<br>UNEP DTIE IETC,<br>Osaka Prefectural Government,<br>Osaka City Government,<br>International Lake Environment Committee (ILEC),<br>JICA Osaka International Center,<br>Kansai Economic Federation,<br>The Osaka Chamber of Commerce and Industry,<br>Kansai Association of Corporate Executives   |
| Supporter            | Osaka CDM Network  |
| Programme            | <ul style="list-style-type: none"> <li>• Host's Remarks: Dr. Hideo Miyahara, President, GEC</li> <li>• Guest's Remarks: Mr. Surya Chandak, Officer-in-Charge, UNEP DTIE IETC</li> <li>• Speech: "Africa's Land and Environment", Mr. Ousmane Sankhon, Special Advisor to the Guinean Consulate</li> <li>• Dialogue: "Environmental Pollution in Japan and Africa"<br/>Mr. Ousmane Sankhon, Special Advisor to the Guinean Consulate<br/>Prof. Takeshi Hisano, Professor, Kwansei Gakuin University</li> <li>• Activity reports from former JICA training course participants upon returning home:<br/>"Environmental Problems and Initiatives in Cuba", Mr. Luis Gomez<br/>"Waste Treatment Issues and the State of the Environment in Lesotho", Ms. Matseliso Tsehlo</li> </ul> |



Speech by Mr. Sankhon



Dialogue between Mr. Sankhon (left) & Professor Hisano (right)



Activity report by Mr. Gomez (left) & Ms. Tsehlo (right)



## PR Activities

In order to introduce our activities to a wider audience, GEC undertook aptly-timed public relations activities by distributing regular newsletters and annual reports in both Japanese and English to affiliated organizations, and through the use of our website. We increased the number of pages in our English newsletters, and changed the English annual report from monochrome to colored, among other efforts to enhance their content. We also revamped the GEC pamphlet to make it more understandable to ordinary citizens. In addition, visitors to GEC facilities are provided with orientation as well as information on GEC activities and facilities through a video, renewed in 2006.

We also conducted PR activities at various events, especially through the use of exhibition booths as a way to introduce our activities.

With the aim of raising awareness of GEC's work and promoting an understanding of global warming among high school students, we commissioned the Osaka Environmental Counselors Association (OECA) to conduct a Global Warming Laboratory Class\* in Osaka prefectural high schools, coupled with an explanation of GEC's activities. Participants from a GEC-managed JICA training course visited Osaka City Ougimachi Sougou High School on 26 November, with the aim of observing an actual example of environmental education. In addition to the Laboratory Class, high school students made a presentation and an exchange ensued between the JICA participants and high school students.



GEC's booth at Tsurumi Ward Festival



Exchange between the JICA participants and the students

### Global Warming Laboratory Class

Held 6 times over 2007.  
(141 participants)

### Library use

The library is open on Tuesday & Friday (excluding public, year-end & New Year holidays) from 10:00 to 12:00 & 13:00 to 17:00. Visitors are required to make an appointment, and books may be viewed and copied but are not available for loan (as of March 2008).



## Upkeep of the Library\*

Since 1997, GEC has provided public access (by appointment) to the library containing specialist literature on the global environment. In 2007, we continued to catalog and improve the library's collection of UNEP-related literature and GEC reports. We also published a list of the UNEP-related literature on our website to enhance its availability to the public. At the same time, we expanded our video collection to meet the increasing requests from EMS seminars.

The library's collection numbered 6,394 publications (including 408 UNEP-related references) as of 31 March 2008.

## Maintenance and Enhancement of Information Systems

GEC has promoted the maintenance and administration of our information provision systems, and has implemented system and software upgrades to enhance operational efficiency and ensure system stability and reliability. We also updated our obsolete web-based information provision system and the internal information-sharing server.

### Provision of Facilities to IETC

GEC continues to provide facilities to IETC at no cost as part of Osaka City's incentive to attract UNEP to the region.

## Provision of Facilities to IETC\*

GEC continued to provide facilities to IETC.



## Publications List

## Publications in 2007

| Publication name  | Contents  | Format         | Size/pages/date of publication   |
|---|---|----------------|--|
| Cuba One-day Seminar Report FY2006  | A report on a one-day seminar conducted in Cuba in 2006   | Booklet<br>PDF | A4/90 pages<br>May 2007<br>(Japanese version) ①  |
| CDM/JI Symposium 2007   | Survey reports from the 2006 CDM/JI Feasibility Study Implementation Group (distributed on the day of the symposium)                                | Booklet<br>PDF | A4/48 pages<br>August 2007<br>(Japanese version) ②                                       |
| GEC Pamphlet  | Informative materials on the organization and activities of GEC   | Booklet        | A4/4 pages<br>December 2007<br>(Japanese version) ③<br>January 2008<br>(English version) |
| Report on the project of Environmental Conservation Activities Involving Local Residents of Thailand's Tha Chin River Basin | A summary of citizen-involved environmental conservation activities implemented based on a three-year plan for the Tha Chin River Basin of Thailand | Booklet        | A4/135 pages<br>March 2008<br>(Japanese version) ④                                       |

## Periodicals

| Publication name   | Contents                                      | Format         | Size/pages/date of publication  |
|--|---|----------------|---------------------------------|
| GEC Newsletter No.32 (Japanese version)                                    | An introduction to the activities of GEC      | Booklet<br>PDF | A4/8 pages<br>August 2007       |
| GEC Newsletter No.33 (Japanese version)                                    | An introduction to the activities of GEC      | Booklet<br>PDF | A4/8 pages<br>February 2008     |
| GEC Newsletter No.22 (English version)                                     | An introduction to the activities of GEC      | Booklet<br>PDF | A4/8 pages<br>October 2007 ⑤    |
| GEC Newsletter No.23 (English version)                                     | An introduction to the activities of GEC      | Booklet<br>PDF | A4/8 pages<br>March 2008 ⑥      |
| Global Environment Centre Foundation Annual Report 2006 (Japanese version) | Report on project of GEC for fiscal year 2006 | Booklet<br>PDF | A4/24 pages<br>July 2007        |
| Global Environment Centre Foundation Annual Report 2006 (English version)  | Report on project of GEC for fiscal year 2006 | Booklet<br>PDF | A4/24 pages<br>September 2007 ⑦ |

## GEC Publications

Please visit the GEC website for all of our publications in PDF form.

## CDM/JI Feasibility Study Programme

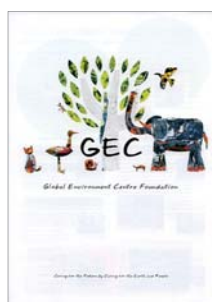
Please refer to page 7–8.



①



②



③



④



⑤



⑥



⑦

## Projects for Fiscal Year 2008

GEC will make even greater efforts toward conservation of the global environment by supporting the activities of UNEP DTIE IETC and promoting international cooperation on the environment, while drawing upon the knowledge and experience that have been accumulated in Japan.

In the eco-town project, one of the IETC support projects, we will continue to work with IETC in coordinating with the target cities and pushing for the steady development of eco-towns. As for the website on wastewater treatment, "GESAP," we plan to add new content for further enhancement. We will continue to assist IETC in implementation of various projects.

In the Ha Long Bay Project in Viet Nam, we will collaborate with local administrative agencies in improving the bay's environment, and lead activities involving local residents, aiming at increased awareness of environmental conservation.

As part of our support for the creation of recycling-oriented societies in Asian developing countries, GEC will continue to assist in the Osaka-Asia 3R Technology Support Project, conducted by Osaka Prefectural Government.

In terms of our contribution to combating global warming, we will continue to serve as the secretariat of the CDM/JI Feasibility Study Programme commissioned by the Ministry of the Environment, Japan.

We will offer seven JICA training courses including a new environmental management course as a regional training programme in the Middle East while enhancing the training curricula.

In addition to supporting the activities of UNEP's Special Envoy, Ms. Tokiko Kato, GEC will make efforts to advocate awareness and understanding of our projects by issuing PR publications and attending various events. Also, in concurrence with the Toyako G8 Summit held in Japan, GEC in partnership with IETC will hold a symposium focused on the realization of a low-carbon society, which is related to the main theme of the G8 Summit.

### International Cooperation: Technical Support for Developing Countries

#### 1) Promoting UNEP DTIE IETC's Activities of Disseminating Information on Environmentally Sound Technologies (ESTs) and Technology Transfer

- 1) Development of Environmentally Sustainable Industries and Creation of Eco-towns in the Asia-Pacific Region
  - Promoting coordination with target cities
- 2) Eco-Town Project Activities
  - Formulating eco-town-related materials and dispatching instructors for the project co-organized by IETC and Kawasaki City
- 3) Dissemination and Promotion of Information on ESTs
  - Maintaining and administering the NETT21 database, while examining updating priorities and methods for the seven fields that have not been updated yet
- 4) Urban Water Issues
  - i) Website on Wastewater Treatment "GESAP"
    - Adding new content to GESAP, and updating and further enhancing this website
  - ii) UNEP Project on Support for Environmental Management of the Iraqi Marshlands
    - Continuously cooperating with this project conducted by IETC
- 5) Project on Disaster Prevention and Management
  - Providing adequate assistance at the request of IETC

#### 2) International Cooperation in Developing Countries

- 1) Osaka-Asia 3R Technology Support Project
  - Conducting a training programme for waste treatment technologies targeting Jiangsu Province of China
- 2) Ha Long Bay Project in Viet Nam
  - Jointly conducting JICA grassroots technological cooperation project with Osaka Prefectural University, aiming at the reduction of waste from local residents living on the water, and at raising residents' awareness of environmental improvement in Ha Long Bay

### 3) Contribution to Measures for the Mitigation of Climate Change

#### 1) CDM/JI Surveys

- Carrying out feasibility studies aiming at the selection of CDM/JI projects, which will realize “co-benefits” to combine countermeasures against global warming and controlling pollution in developing countries
- Organizing a symposium to report the results of feasibility studies conducted in 2007, and providing information on the latest trends concerning co-benefit-type CDM/JI in Japan and from around the world

#### 2) Collection and Distribution of CDM/JI Related Information

- Collecting the latest information concerning CDM/JI from international meetings and other sources, and publishing this information on our website etc.

#### 3) Osaka CDM Network

- Promoting timely information exchange on the Kyoto Mechanism, so that member companies are able to create new business opportunities related to CDM

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## Training of Environmental Technology

### 1) Human Resource Development in Developing Countries

#### 1) JICA Group Training Projects

- Conducting seven courses including Environmental Policy & Environmental Management Systems, Pollution Controls for Hazardous Substances in the Environment, Urban Solid Waste Management, Air Pollution Control
- Cooperating with JICA to meet additional training demands, through strengthened collaboration with research institutions and other related organizations

#### 2) GEC Networking Project

- Improving the content available on the member-based “JICA-GEC Network,” and holding an one-day seminar in an effort to follow up on former JICA training participants

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### 2) Dissemination of Environmental Management Systems (EMS)

#### 1) EMS Training Courses

- Operation of the “Internal Environmental Auditor Training Course”

#### 2) Dissemination of EMS Overseas

- Through our JICA training courses, GEC is working to spread the adoption of EMS in developing countries.

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## PR and Educational Activities

### 1) Promotion of IETC Projects & Joint PR

- PR activities including posting of articles on IETC in GEC publications and on our website, and at exhibit booths
- Cooperating to host a photo exhibition introducing UNEP’s activities

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### 2) UNEP Special Envoy Project

- Supporting the planned visit to Australia by UNEP Special Envoy Ms. Tokiko Kato, as well as environmental activities in Japan

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### 3) Hosting Seminars and Symposia

- Holding a symposium in collaboration with IETC focused on the realization of a low-carbon society, with relation to the main theme of the Toyako G8 Summit and related ministerial meetings held in Japan, on a plan to fight global warming
- Co-hosting a seminar with the Osaka CDM Network concerning a carbon offset, as a side event to New Earth 2008 held in Osaka, another international symposium featuring global warming

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### 4) PR Activities

- Providing information on GEC’s activities and the environment, through newsletters and an annual report, a website, and participation in environment-related events
- Accepting tours of GEC facilities built by utilizing energy-efficient systems

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### 5) Upkeep of the Library

- Cataloging and improving our collection of UNEP-related literature and GEC reports in our library, as well as expanding our video collection

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### 6) Maintenance and Enhancement of Information Systems

- Expanding information provision through GEC’s website, and promoting adequate maintenance and administration to enhance operational efficiency and ensure system stability and reliability

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## Others

### 1) Provision of facilities to IETC

- Providing the use of our facilities and other resources, with due consideration to safety and equipment

## Background of the Establishment

### Establishment of the UNEP DTIE International Environmental Technology Centre

In the 1960s, in conjunction with rapid industrialization, Osaka City suffered from several unprecedented environmental problems. Enormous infrastructure improvements and development of environmental technologies were subsequently achieved through cooperation between the municipal government and industry. In the hope of extending these benefits beyond its borders, the Osaka City Government has been working to help alleviate environmental problems in developing countries.

With this in mind, in August 1989, Mr. Masaya Nishio, Mayor of Osaka, announced a plan to attract an international environmental organization to the city in order to disseminate and apply Osaka's successful experience in its urban environmental management. This plan was announced in accordance with the spirit of the International Garden and Greenery Exposition held in Osaka in 1990. Following the mayor's announcement and with the support of the Japanese national government, the Osaka Prefectural Government, and business organizations in the region, Osaka Mayor Nishio officially handed a request to Dr. Mostafa K. Tolba, Executive Director of the United Nations Environment Programme (UNEP), while he was visiting Japan.

The result was that, in July 1990, at a summit of developed countries in Houston, USA, Prime Minister Toshiki Kaifu announced the plan of setting the UNEP facilities up in Japan. In August of the same year, Mr. Naohiro Kumagai, Japan's Ambassador to Kenya, proposed to the 2nd Special Meeting of the UNEP Governing Council that a center be set up in Japan in view of the increasing importance of environmental technology transfer to achieve sustainable development. In May of the following year, a resolution to establish the UNEP International Environmental Technology Centre (IETC) whose mandate is the adoption, application and operation of Environmentally Sound Technologies (ESTs) in developing countries and countries with economies in transition, was unanimously approved at the 16th Session of the UNEP Governing Council. Official establishment of IETC was completed in October 1992 in Osaka when UNEP Executive Director Tolba and Parliamentary Vice-Minister for Foreign Affairs Kakizawa signed an official agreement marking the founding of IETC. Since 1998, IETC has operated as a part of UNEP's Division of Technology, Industry and Economics Division (DTIE).

Note: all titles are effective as of the years mentioned here.

### Establishment of the Global Environment Centre Foundation

After official approval in 1991 by the UNEP Governing Council to set up the IETC in Japan, the Osaka City Government formed an UNEP IETC Osaka Planning Office on 3 July 1991. The purpose of the office was to carry out planning and create a network of support for the proposed center. Following initial preparation by the Planning Office, capital endowment was received from the Osaka prefectural and city governments. The establishment of the Global Environment Centre Foundation (GEC) was carried out on 28 January 1992 with the expressed purpose of supporting IETC. GEC, a nonprofit organization, obtains support from the local business sector.

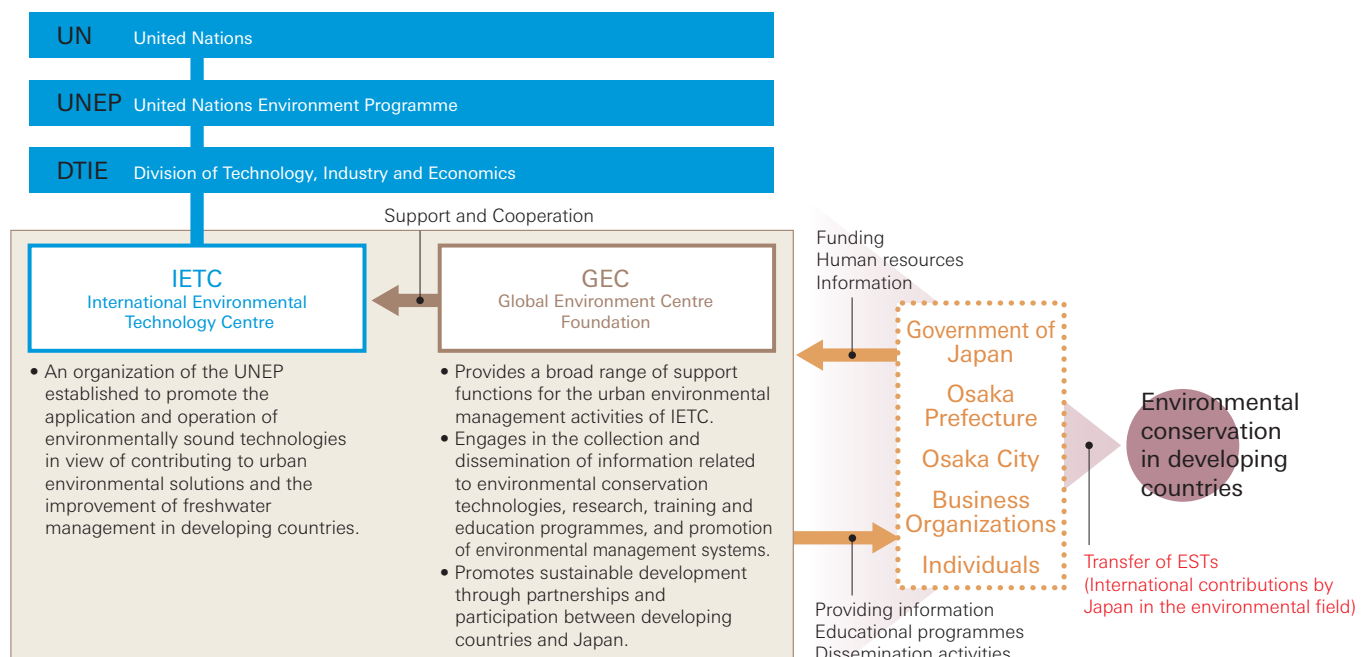
GEC provides logistical support to IETC Osaka and collaborates with IETC on joint projects. It also acts as a liaison between environmental organizations in Japan and the IETC. In this way, it helps to ensure the IETC's smooth and efficient operation. In addition, GEC promotes environmental conservation through original projects such as the collection and dissemination of environmental technological information, training programmes, seminars and symposia, as well as research.

Thus, in all of these ways, GEC's activities make a significant international contribution by Japan in the environmental field.

## Mission and Objectives

GEC was established to make use of the abundant accumulation of knowledge and experience in Japan in the field of environmental conservation. In particular, it makes use of knowledgeable groups and individuals in the Kansai region in order to support contributions of IETC in the field of urban environmental management in developing countries. Thus, GEC promotes international cooperation around environmental conservation, and aims to make meaningful, practical contributions to the protection of the global environment.

|                         |  |
|-------------------------|--|
| Name                    | Global Environment Centre Foundation (GEC)   |
| Date of Establishment   | 28 January 1992  |
| Supervisory Authorities | The Ministry of Foreign Affairs of Japan, The Ministry of the Environment of Japan   |
| Office Location         | 2-110 Ryokuchi-koen, Tsurumi-ku, Osaka 538-0036 Japan<br>Telephone: +81-6-6915-4121 Facsimile: +81-6-6915-0181   |
| Endowments              | 1,754,030,000 yen (as of 31 March 2008)  |
| Activities              | (1) Providing general support for activities of UNEP relating to urban environmental conservation in developing countries<br>(2) Undertaking research which contributes to the conservation of the global environment, with particular emphasis upon urban environmental management in developing countries<br>(3) Collection and dissemination of information which contributes to the conservation of the global environment, with particular emphasis upon urban environmental management in developing countries<br>(4) Conducting of training programmes, seminars, and symposia which contribute to conservation of the global environment, with particular focus upon urban environmental management in developing countries<br>(5) Facilitating communications with international organizations, governmental organizations, and research organizations in various countries, in order to contribute to conservation of the global environment<br>(6) Any other activities necessary to achieve the mission of GEC |
| Number of Staff         | 25 (including temporary staff, as of 31 March 2008)  |



\*International Lake Environment Committee (ILEC) also supports IETC in promoting activities.



### Board Members of the Global Environment Centre Foundation

|                                  |   |   |
|----------------------------------|---|---|
| President                        | MIYAHARA, Hideo   | President, National Institute of Information and Communications Technology  |
| Executive Director               | MASUDA, Takafumi  | Former Director General/Director of Environment Division, Environment and Sewerage Bureau, Osaka City Government  |
| Managing Director                | MITSUOKA, Kazuhiko  | Former Director General for Environmental Policy, Environment Bureau, Osaka City Government   |
| Directors                        | HASHIMOTO, Toru<br>HIRAMATSU, Kunio<br>KATAYAMA, Toru<br>MORISHIMA, Akio<br>NOMURA, Akio<br>SAITO, Norihiko<br>SHIMOZUMA, Hiroshi   | Governor of Osaka<br>Mayor of Osaka<br>Executive Managing Director, Overseas Environmental Cooperation Center<br>Professor Emeritus, Nagoya University<br>Chairperson, Osaka Chamber of Commerce and Industry<br>Chairperson, Kansai Association of Corporate Executives<br>Chairperson, Kansai Economic Federation (Kankeiren)   |
| Auditors                         | IWAMOTO, Kenichi<br>SHICHI, Michihiro   | Certified Tax Accountant<br>Director General, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government  |
| Councilors                       | KANEKO, Kumao<br>KASHIWAGI, Takashi<br>KOBAYASHI, Shoichiro<br>KODAMA, Takao<br>MIZUNO, Minoru<br>OGAWA, Yasuyuki<br>OHTSUKA, Ryutaro<br>ONOGAWA, Kazunobu<br>SAKAI, Toshifumi<br><br>SHIBANO, Hirofumi<br>SUZUKI, Yutaka   | Chairperson, Japan Council on Energy & Security<br>Vice Mayor of Osaka<br>Advisor, Kansai Electric Power Co., Ltd.<br>Chairperson, Osaka City Environment Council<br>Professor Emeritus, Osaka University<br>Vice Governor of Osaka<br>President, National Institute for Environmental Studies<br>Director, United Nations Centre for Regional Development<br>Director General, Osaka International Centre of the Japan International Cooperation Agency<br><br>Director, Osaka Gas Co., Ltd.<br>Vice President, University of Hyogo  |
| Board of Technology and Planning | FUJITA, Masanori<br>HINO, Yasuo<br>KOSAKA, Akira<br>MAEDA, Yasuaki<br>MASUDA, Noboru<br><br>MORIOKA, Toru<br>MOROTOMI, Toru<br>NAKAGAWA, Masataka<br><br>NISHIYAMA, Kenichiro<br><br>SERITA, Kentaro<br>SHIMADA, Koji<br>SHINOZAKI, Yukiko<br>TAGAWA, Seichi<br><br>TAKEDA, Nobuo<br><br>WATANABE, Masataka | President, Kochi National College of Technology<br>Professor, Graduate School of Engineering, Osaka City University<br>Professor, Osaka School of International Public Policy, Osaka University<br>Professor, Graduate School of Engineering, Osaka Prefecture University<br>Professor, Graduate School of Life and Environmental Science, Osaka Prefecture University<br><br>Professor, Graduate School of Engineering, Osaka University<br>Associate Professor, Graduate School of Economics, Kyoto University<br>Director, Economy and Industry Division, The Osaka Chamber of Commerce and Industry<br><br>Director General for Environmental Policy, Environment Bureau, Osaka City Government<br><br>Professor, Aichi Gakuin University Law School<br>Professor, College of Economics, Ritsumeikan University<br>President, City-Life Institute<br>Executive Director, Urban Environment Office, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government<br>Visiting Professor, Research Organization of Science and Engineering<br>Director, Research Center for Eco-Technology<br>Professor, Faculty of Environment and Information Studies, Keio University |

(as of 1 July 2008, honorific omitted; name in alphabetical order <Surname>)

## Overview of the UNEP DTIE IETC

|  |  |
|--|--|
| Name   | United Nations Environment Programme (UNEP)<br>Division of Technology, Industry and Economics (DTIE)<br>International Environmental Technology Centre (IETC)   |
| Date of Conclusion of the Agreement between Japanese Government and UNEP | 30 October 1992  |
| Mandate  | Promoting the application and transfer of Environmentally Sound Technologies (ESTs) particularly among developing countries in the three key fields of "Water and Sanitation", "Sustainable Production and Consumption" focusing on waste management/3R initiatives and "Disaster Prevention and Management"   |
| Contacts   | Osaka Office 2-110 Ryokuchi-koen, Tsurumi-ku, Osaka 538-0036 Japan<br>tel: +81-6-6915-4581 fax: +81-6-6915-0304<br>Shiga Office 1091 Oroshimo-cho, Kusatsu-city, Shiga, 525-0001 Japan<br>tel: +81-77-568-4581 fax: +81-77-568-4587<br>e-mail: ietc@unep.or.jp IETC homepage: <a href="http://www.unep.or.jp/">http://www.unep.or.jp/</a>  |
| Posts<br>(As of 1 July 2008)   | Officer-in-Charge, Senior Liaison Officer, Senior Programme Officer<br>Programme Officers (2), Administrative/Fund Management Officer  |
| Programme Activities<br>(implemented in 2007)                            | <p><u>Production and Consumption with focus on Waste/3R</u></p> <ul style="list-style-type: none"> <li>• Resource Augmentation project by Tapping Renewable Resources and Utilizing Waste in Vietnam <ul style="list-style-type: none"> <li>- Detailed design and drawings for waste water reuse and rainwater harvesting system at a sugar manufacturing company have been prepared and the systems were implemented.</li> <li>- The composting system to convert the organic waste into a valuable resource was improved to provide better quality of compost to farmers and reduce the environmental impacts during composting of organic wastes.</li> <li>- A workshop was held to disseminate the experience gained and lessons learnt</li> </ul> </li> <li>• Integrated Solid Waste Management project for Wuxi, China; Maseru, Lesotho; and Pune, India <ul style="list-style-type: none"> <li>- ISWM Plans and Implementation Strategy for three pilot locations were completed.</li> <li>- Training materials for capacity building of local partners on ISWM were developed.</li> <li>- Stakeholders Workshops and Training Workshops were held in each city.</li> </ul> </li> <li>• ISWM project for Matale, Sri Lanka was started.</li> <li>• Launched a Waste Biomass Management project in the Philippines and a compendium of technologies to convert waste biomass into a material and energy source was developed.</li> <li>• Continued to support of the 3R Initiative of the Government of Japan and participated in the Senior Officials Meeting on the 3R Initiatives in Bonn, Germany.</li> <li>• Continued to support the Osaka 3R Consortium and provided advice and inputs to the Consortium's activities in China, Malaysia, Thailand and Vietnam.</li> <li>• Organized the 3rd Asia-Pacific Eco-business Forum "Urban and Industrial Symbiosis" with City of Kawasaki.</li> <li>• Developed a 'database-of-database' on eco-products and related issues including information on products covering a range of types over its entire life-cycle.</li> <li>• Organized training sessions in Kawasaki, Japan and in Bandung, Indonesia respectively to build capacities in adopting green procurement programmes in the countries in the SAARC and ASEAN regions.</li> <li>• Prepared a tool set for the design and planning of industrial parks and eco-towns.</li> </ul> <p><u>Water and Sanitation</u></p> <ul style="list-style-type: none"> <li>• Pilot Demonstration on the application of the phytotechnology to improve water quality in Bocaina City, Brazil <ul style="list-style-type: none"> <li>- Produced a design of the pilot artificially constructed wetland.</li> <li>- Organized a training workshop for local authorities and institutions.</li> </ul> </li> <li>• Continued the work on upgrading the IETC software to design artificial wetlands to allow for the inclusion of temperate and cold climates</li> <li>• Launched a project to address the need for improving access to water and wastewater provision in rural communities in environmentally vulnerable areas in Jamaica</li> <li>• Preparation of the Sourcebook and Training Manual on Water Use Efficiency in the Urban and Domestic Environment</li> <li>• Support for Environmental Management of the Iraqi Marshlands project <ul style="list-style-type: none"> <li>- Carried out field surveys to address the gap in data and information available on demographic, social and economic conditions in 199 villages in the marshlands.</li> </ul> </li> </ul> |

- Conducted awareness raising workshops targeting women in marshland villages
- Held a high-level meeting to discuss environmental priorities in Iraq and to assess the progress of the Iraqi Marshlands Project with the Iraqi delegation
- Held an evaluation meeting of phase II-A
- Started work to improve access to safe drinking water in the seventh village following the successful completion of ESTs for drinking water provision in six villages
- Maintained and improved the trilingual project website in English, Arabic and Japanese to disseminate the project activities and lessons learnt
- Organized an open event in the 1st Asia-Pacific Water Summit on "Water Resources and Environment in Euphrates-Tigris River Basin" in Beppu.

#### Disaster Management and Prevention

- Demonstrating ESTs for Building Waste Reduction in Indonesia project
  - Prepared a report on baseline data of the tsunami debris describing the various types of debris generated during the disaster and implications for technologies that will be needed for their processing.
  - Prepared a catalogue of technologies that are used in the handling of construction and demolition wastes.
- Undertook a post-disaster mission in Toyooka to assist in assessment of environmental damage of natural and human-caused disasters
- Set up an experts group for environmental risk assessment to develop strategies and decision-making tools for effective technologies in disaster management
- Use of ESTs in Forestry Waste Management for disaster prevention in Banyumas, Indonesia.
  - Carried out an assessment of potential environmental impacts of forestry waste management
  - Carried out a policy gap analysis to promote forest waste management

#### Others

- Participated in the 15th Environment Congress for Asia and the Pacific (ECO Asia 2007)
- One World Festival
- Participated in the tree planting ceremony of World Championships in Athletics Osaka
- Photo exhibition Osaka

## INDEX

**Series of NETT21:** Database on New Environmental Technology Transfer in the 21st Century by GEC, and the number of data listings for each topic.

Database on: • Air Pollution Control Technology in Japan: 128  
 • Waste Management Technology in Japan: 45  
 • Water Pollution Control Technology in Japan: 96  
 • On-Site Green Technique (OGT) in Japan: 83  
 • Air Pollution Continuous Monitoring Technology in Japan: 83  
 • Water Pollution Continuous Monitoring Technology in Japan: 53  
 • Cleaner Production Technology in Japan: 189  
 • Energy-Saving Technology at Business-Related Buildings: 94  
 • Soil and Groundwater Contamination Survey and Countermeasure Technologies: 37  
 • Japanese Advanced Environmental Equipment (provided by JSIM): 621

Total: 1,429 data listings (as of 31 March 2008, complete data available in English via the GEC Website)

**Number of inquiries to NETT21:** Overseas: 21; Domestic: 7(1 April 2007–31 March 2008)

**Number of visitors to GEC:** 122 (1 April 2007–31 March 2008)

**Stored publications:** 6,394 including 408 UNEP-related books (as of 31 March 2008)

**Global Environment Centre Foundation  
Annual Report 2007**



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