

Global Environment Centre Foundation

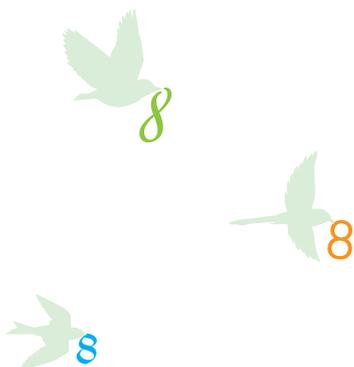
Annual Report 2008



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All years listed in this Annual Report are expressed according to the Japanese fiscal year from 1 April to 31 March.
Terms marked with an asterisk (*) are defined in the margin.



Foreword

The global financial crisis which began as a result of the U.S. subprime mortgage crisis and the collapse of Lehman Brothers delivered a significant blow to Japan's export-reliant economy in 2008 by triggering a sudden appreciation of the yen and a decline in Japanese share prices. At first glance, this contraction in economic activity may appear to be a boon for the environment due to the resultant decrease in environmental impact. The fact is, however, that it will ultimately stymie measures to protect the environment by eliciting a decline in eco-business which will in turn bring a halt to the development of eco-infrastructure and innovations in green technology.

Meanwhile, a look at the rest of the world reveals that the issue of climate change, and especially the issue of waste in developing countries, is currently worsening. Environmental measures generally take low priority in developing countries compared to those relating to poverty, healthcare and sanitation so there is a concern that the current global financial crisis will delay the adoption of environmental conservation measures within these nations.

Since its founding in 1992 as a support body for the United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC), the Global Environment Centre Foundation (GEC) has focused its projects on the transfer of Environmentally Sound Technologies (ESTs) in order to help realize environmental conservation and sustainable development in developing countries.

In 2008, GEC implemented the Clean Development Mechanism (CDM)/Joint Implementation (JI) Feasibility Study Programme at the commission of the Ministry of the Environment, Japan, in order to promote global warming counter-measures and sustainable development. GEC has also been active in tackling various environmental issues by operating training programmes at the commission of the Japan International Cooperation Agency (JICA) with the aim of developing environmental policymakers and other personnel from developing countries, as well as by implementing projects in partnership with IETC in order to transfer Japan's eco-town concept to these countries.

In the future, GEC will continue to promote such initiatives and contribute to international cooperation on the environment in addition to working even harder to protect the global environment with the cooperation of our affiliated organizations.

We therefore hope that this annual report will help to foster an understanding of GEC's activities, and we look forward to your continued support and cooperation in the future.



September 2009

A handwritten signature in black ink that reads "H. Miyahara". The signature is fluid and cursive, written in a professional style.

MIYAHARA, Hideo

President

Global Environment Centre Foundation

Activities in Fiscal Year 2008

In order to provide technological assistance and other forms of international cooperation to developing countries, GEC visited the eco-town target city of Bandung, Indonesia in 2008 where we hosted a workshop and donated two waste chopping machines with the aim of promoting UNEP DTIE IETC's activities to share information on and transfer Environmentally Sound Technologies (ESTs).

We also published new technical information in the existing 'Cleaner Production Technology in Japan' category of our environmental technology database 'NETT21'.

GEC is planning to launch a project in collaboration with the community of Ha Long Bay, Viet Nam where environmental degradation has become an issue. We therefore conducted a preliminary study with Osaka Prefecture University to determine the specific needs of those involved in this project which aims to improve the lives of the residents and the environment.

GEC also supported the 'Industrial Waste Treatment Technology Training' operated by the Osaka Prefectural Government by providing training on the proper treatment of waste and recycling technologies to participants from Jiangsu Province in China.

In our role as secretariat of the CDM/JI Feasibility Study Programme commissioned by the Ministry of the Environment, Japan, GEC continued efforts to select promising CDM/JI projects and ensure their proper progress with a focus on co-benefit projects which address global warming while also meeting the needs of developing countries to deal with environmental pollution. We also contributed to measures to tackle global warming by hosting a symposium and attending the 14th Conference of the Parties to the UNFCCC (COP14) where we both gathered and disseminated information.

GEC operated seven training courses on environmental technology and other subjects under the JICA Group Training Programme which aims to foster human resources in developing countries. We also held a one-day seminar and workshop in Indonesia as part of our efforts to follow up on former training course participants.

In terms of public relations and raising awareness, GEC co-hosted G8 Toyako Summit Commemoration International Symposium with IETC to discuss ways for government, industry and academia to work together towards the realization of a 'low carbon society'.

Meanwhile, UNEP Special Envoy Ms. Tokiko Kato traveled to Australia where she hosted a concert under the theme of protecting the environment in addition to visiting local environmental conservation initiatives. Ms. Kato also gave the keynote speech at the 'ECO Asia Symposium' held in Nagoya, in which she emphasized the importance of conserving the environment.

In addition to all of these activities, GEC also works to promote awareness of our work by issuing newsletters and annual reports, participating in events relating to the environment, and hosting a series of lectures aimed at citizens.



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 the Asian region where economic development is progressing, there is a 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 started its eco-town project in 2004 to create eco-towns in the Asia-Pacific region based on the experiences and lessons of Japan's eco-town development, and GEC has supported this project.

GEC visited the eco-town target city of Bandung in Indonesia from 10 to 14 March 2009 to host a waste management technology workshop as well as presenting two waste chopping machines requested by the Bandung municipal government using the funds collected at an environmentally-themed charity fund-raising event at the 'Nakanoshima Music Carnival '07 - Osaka Chinese Culture Festival' held in September 2007.

The workshop was attended by about 60 people from a broad range of organizations including government and residents' groups who enthusiastically discussed initiatives to effectively reduce and recycle waste. The presentation ceremony was attended by some 300 people including representatives and residents from Bandung.

The waste chopping machines will be used in a waste-reduction pilot project jointly planned by a residents' group and waste disposal firm, thereby supporting the promotion of the 3Rs in Bandung, and advancing the city's eco-town programme.

Eco-Town Project Activities

Since 2006, IETC and Kawasaki City have co-hosted the 'UNEP Eco-Town Project Meeting' with the aim of promoting the eco-town project and, on 20 October 2008, hosted a workshop in Kawasaki targeting eco-town candidate Penang, Malaysia with the participation and cooperation of GEC. The workshop was attended by two staff from the Socio-Economic & Environmental Research Institute (SERI) who made presentations entitled 'The Eco-town Concept' and 'Penang's 10-year Plan', and a decision was eventually reached between IETC and SERI on the specific initiatives of Penang's eco-town activity plan for 2009.

IETC and Kawasaki City also co-hosted the '5th Asia-Pacific Eco-Business Forum - Urban and Industrial Symbiosis' on 16 and 17 February 2009 as a joint event of the 'Kawasaki International Eco-Tech Fair 2009', again with the participation and cooperation of GEC. The forum was attended by 26 representatives from environmental administrations in Bandung and Penang as well as Phnom Penh in Cambodia, Sorsogon in the Philippines and Shenyang in China. Each session featured presentations and lively discussions on the eco-town initiatives and challenges in each of the participants' cities. GEC strived to collect and exchange information which would prove valuable in supporting and promoting the eco-town project in developing countries.



Workshop in Bandung



Waste chopping machine presentation ceremony in Bandung



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.

**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 1,500 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 20 for details.)

**Number of inquiries to
NETT21**

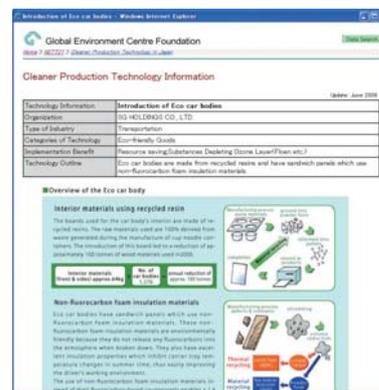
Overseas: 23; Domestic: 2
(1 April 2008–31 March 2009)

**GESAP (GEC Sanitation
Programme)**

The website's content consists of five themes: 'Global Situation in Sanitation Sector', 'Water and Wastewater Reuse', 'Sewage Works in Osaka, Japan' (published by the Osaka City Environment and Sewerage Bureau in 2003), 'Resource and Energy Recovery in Sanitation' and 'Water Supply System in Osaka, Japan' (published by the Osaka City Water Works Bureau in 2006).

Promoting the Spread of Information on ESTs

In July 2008, GEC published an additional 52 technical articles in the 'Cleaner Production Technology in Japan' category of our existing GEC environmental technology database 'NETT21*'. The articles contained technical information collected during a comprehensive data acquisition project in 2007. We also sought to ensure the reliability of the previously-updated databases 'Water Pollution Control Technology in Japan' and 'Waste Management Technology in Japan' by confirming the registered data with their providers. In addition, we surveyed the needs of JICA participants and prioritized the extraction and updating of technical information in high demand for the seven database categories yet to be updated.



Environmental Technology Database 'NETT21'

Urban Water Issues (Website on Water and Sanitation 'GESAP*')

GEC launched the 'GESAP' website on water and sanitation in 2005 with the aim of providing information to assist in solving issues relating to sanitary water supply and drainage in developing countries. The website contains data on global situation in sanitation sector, water and wastewater reuse, and the sewerage works in Osaka, Japan. In 2008, we added a new database category entitled 'Water Supply System in Osaka, Japan' to provide reference information on the previously-unpublished subject of waterworks. The database category was then published on GESAP in March 2009. In the future, GEC will study effective ways to utilize this database while identifying the needs of users.



GESAP

International Cooperation in Developing Countries

Ha Long Bay* Project in Viet Nam

The recent deterioration of the environment in Ha Long Bay in Viet Nam's Quang Ninh Province has raised the possibility of it being deleted from the World Heritage List and made finding a solution all the more urgent. GEC and Osaka Prefecture University therefore launched the 'Project on support for building a community-based recycle-oriented system in Ha Long Bay area' to create a resource recycling system based on cooperation between residents, tourist operators and the government with the aim of improving the lives of residents and the environment in Ha Long Bay. The project was adopted as the 2nd JICA Grassroots Technical Cooperation Project (partnership type) of 2007 and, from 16 to 21 September 2008, GEC visited Viet Nam with Osaka Prefecture University to conduct a preliminary study in preparation for the project's commencement in 2009.

The project seeks to reduce the waste and deal with the household wastewater which is mainly generated by Ha Long Bay's floating community and tourist boats. We also plan to curb the generation of waste and promote measures to improve the environment in collaboration with government agencies including the Quang Ninh Province's Department of Natural Resources and Environment by implementing environmental education as well as water quality monitoring carried out with the participation of local residents. By pushing ahead with this

initiative we will raise awareness about environmental conservation among residents, as well as supporting the creation of systems to facilitate autonomous, sustained efforts led by community groups.

The main objectives of the preliminary study are to identify the specific needs of the project's target group, namely the residents of Ha Long Bay, and to enlist the cooperation of the key stakeholder organizations to implement the project. We also hosted a meeting on 19 September 2008 gathering together all parties involved in the project, and about 20 people attended including representatives from the floating community and tourist boat owners. The meeting facilitated a lively discussion on the details of the project, allowing us to identify a broad range of needs. We now plan to make final adjustments in order to incorporate the local opinions and needs highlighted by this study into the project's activities as we move towards its commencement.



Interview with a representative of floating community



Meeting with local affiliates

Osaka-Asia 3R* Technology Support Project

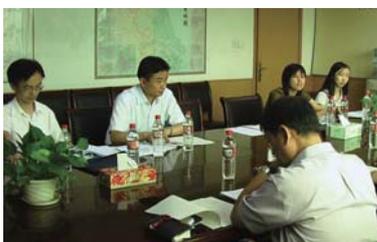
• Support for Training on Industrial Waste Treatment Technology for Jiangsu Province, China

The Osaka Prefectural Government operated the 'Asia 3R Technology Support Project' in 2006 and 2007 with the aim of supporting urban waste initiatives in Asian cities by leveraging the waste treatment and recycling technologies of private companies in Osaka. GEC is supporting this project through the effective use of resources (eco-town and 3R-related technologies) that we have accumulated to date.

Against the backdrop of China's rapid economic development, the Osaka Prefectural Government launched the 'Osaka Prefecture Industrial Waste Treatment Technology Training' in 2008 to train environmental administration officials from Jiangsu Province, where the proper treatment of industrial waste and promotion of recycling are proving problematic. GEC was responsible for conducting the preliminary survey and operating the training.

In order to ensure the training's effective operation, GEC carried out a preliminary survey in Jiangsu Province from 16 to 19 September 2008. The survey team visited the Jiangsu Environmental Protection Department and the candidate trainees to confirm the training curriculum needs. We also confirmed the extent of the province's water pollution caused by recent industrialization with a visit to Lake Tai, which has been emitting a pungent odor due to deterioration in water quality and the occurrence of blue-green algae.

After examining the training program based on the results of the preliminary study, GEC operated the 'Osaka Prefecture Industrial Waste Treatment Technology Training' from 9 to 21 November 2008. On the final day, a training evaluation meeting was held in which the trainees made presentations outlining the specific ways they would apply what they had learned to deal with waste, and was concluded with highly positive evaluations from the participants.



Discussion with Jiangsu Environmental Protection Department officials



Field trip to the Biyo Center in Shiga, Japan

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

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.

Contribution to Measures for the Mitigation of Climate Change

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.

CDM/JI Feasibility Study Programme

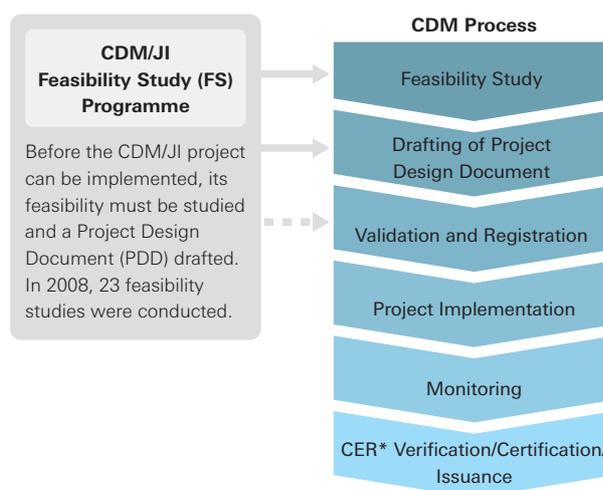
Of the feasibility studies carried out to date, eight projects have been registered by the CDM Executive Board (including registration of one similar project in the FS vicinity) and another five projects have obtained approval from the Japanese government. Three new methodologies derived from previous FSs have also been approved by the CDM Executive Board (EB).

CDM*/JI* Feasibility Study Programme*

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

In order to help Japan obtain the credits needed to achieve its greenhouse gas reduction targets, GEC sought to select more feasible projects during the FS selection process by conducting preliminary interviews with the applicants. In 2008, we invited applications with an emphasis on CDM/JI projects capable of realizing 'Co-benefits' by contributing to global warming countermeasures as well as environmental conservation measures in developing countries. As a result, we adopted 23 feasibility studies in fields such as waste management and biomass utilization. GEC assisted in the development of the Project Design Documents (PDDs) which are required to validate the eligibility of these projects as CDM/JI projects (validation), and managed the progress of the FSs by providing specific advice towards their realization via an expert committee.

CDM Flow & GEC Projects

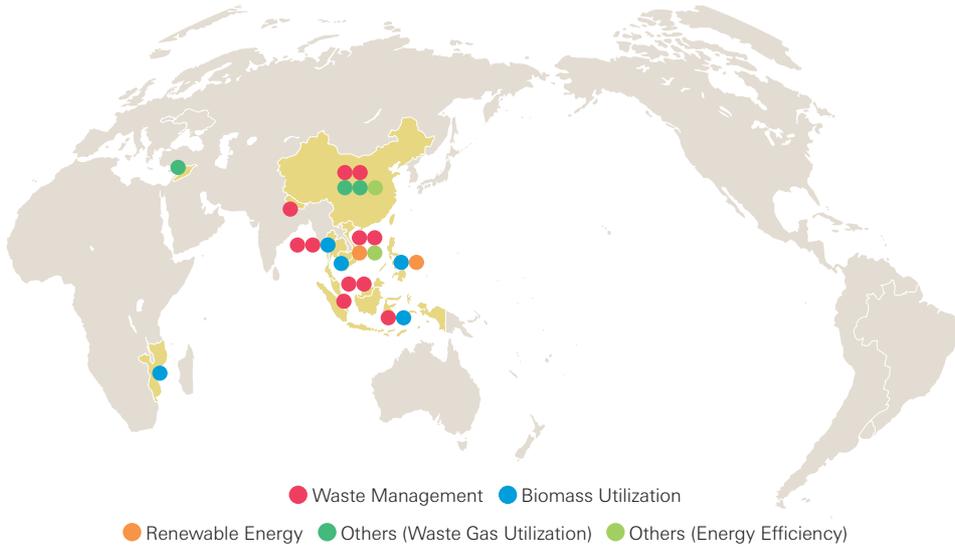


List of 2008 CDM/JI Feasibility Studies*

Category	Project	Country
Waste Management	Methane Emissions Avoidance at Waste Landfill Site	China
	Organic Waste Treatment and Methane Power Generation Project	China
	MSW Intermediate Treatment Programmatic CDM	Indonesia
	Palm Oil Mill Effluent (POME) Treatment Co-benefits CDM	Malaysia
	Power Generation with Waste Material and Recovered Gas of Palm Oil Mill	Malaysia
	Biogas Plants Introducing Program	Nepal
	Sewage Sludge Incineration CDM Project	Singapore
	Biomass Electric Generation System by the Phosphoric Acid Fuel Cells (PAFC)	Thailand
	CDM Project to Utilize Effectively the Biogas at the Swine Farms	Thailand
	Wastewater Treatment and Energy Recovery at Starch Processing Plant	Viet Nam
Generation of Biomass from Urban Refuse in Can Tho City ¹	Viet Nam	
Biomass Utilization	Jatropha Biofuel and Power Generation Project	Cambodia
	Wood Biomass Power Generation	Indonesia
	Bio-diesel Production	Mozambique
	Rice Husk-based Power Generation	Philippines
	Programmatic CDM for Ethanol Production Using Cassava Pulp	Thailand
Renewable Energy	Programmatic CDM on Renewable Energy Generation Utilizing Irrigation Canals	Philippines
	Installation of Solar Water Heating Systems	Viet Nam
Others (Waste Gas Utilization)	Direct Reduction Iron Production by Utilizing Coke Oven Gas	China
	Waste Coke Oven Gas (COG) Based Electricity Generation Plant	China
	Energy Utilization of Ammonia Plant Tail Gas	Syria
Others (Energy Efficiency)	Waste Electricity Utilization at a Locomotive Plant	China
	Introduction of High-Efficiency Electric Transformers in the Electric Transmission and Distribution Grid	Viet Nam

1) The 'CDM Feasibility Study on Generation of Biomass from Urban Refuse in Can Tho City, Viet Nam' was terminated upon learning that the project could not be implemented due to poor feasibility.

CDM/JI Feasibility Study Projects in 2008



Biomass Electric Generation System by the Phosphoric Acid Fuel Cells (Thailand)



MSW Intermediate Treatment Programmatic CDM (Indonesia)



Programmatic CDM on Renewable Energy Generation Utilizing Irrigation Canals (Philippines)

'CDM/JI Symposium 2008'**

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

In October 2008, GEC hosted the 'Symposium on CDM/JI Feasibility Study Programme for Climate Change Mitigation 2008 (CDM/JI Symposium 2008)' in Tokyo and Osaka.

The symposium featured lectures by experts providing participants with the latest information on global warming and CDM/JI both in Japan and overseas. Four CDM/JI FS entities also reported the results of their studies undertaken in 2007, and then experts reviewed these reports and made constructive comments based on the latest findings and information, such as the various issues involved in realizing projects and methods for their resolution.

Participants also received the 'CDM/JI Symposium 2008' booklet containing summary reports on FSs conducted in 2007.



'CDM/JI Symposium 2008' in Tokyo (left) and Osaka (right)

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.

2008 CDM/JI Feasibility Studies

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

'CDM/JI Symposium 2008'

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.

Co-benefits approach to climate change and CDM

Initiatives to implement climate change measures and CDM projects while also meeting development needs in developing countries. In particular, the co-benefits approach encourages climate change measures and CDM projects which also contribute to solving local environmental issues (such as air and water pollution and waste) from the perspective of sustainable development.

Osaka CDM Network

A network established in February 2004 by GEC, OISCA Kansai Branch and Business Innovation Centre Osaka to promote active participation and independent initiatives in the CDM/JI by companies located in the Kansai region. The Network aims to provide workshops and other practical forums and currently has 23 member organizations as of July 2009.

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.

Collection and Distribution of CDM/JI-related Information

GEC attended the 14th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP14)* and the 4th Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP4)* held in Poznan, Poland, from 1 to 12 December 2008, where we collected information. GEC also set up an exhibition booth introducing the CDM/JI FS Programme commissioned by the Ministry of the Environment, displayed posters to raise awareness of the 'Co-benefits approach to climate change and CDM*', and distributed the 'CDM/JI Manual for Project Developers and Policy Makers-2008' issued by the Ministry of the Environment as well as its electronic media and other related materials.



COP14

The information collected at these conferences and their side events is published on the GEC website. The dissemination of up-to-date, precise information on CDM/JI in Japanese is highly significant for businesses in Japan involved in CDM/JI projects.

Osaka CDM Network*

The Osaka CDM Network provides information on the CDM and emission trading business via seminars held several times a year.

In 2008, the Osaka CDM Network hosted three seminars for its members and, in November, set up a web platform from which it launched the 'Osaka Carbon Offset Concierge' (OCONOMI) activity to raise public awareness on carbon offsetting.



Osaka Carbon Conference & Fair 2008

The Network also hosted the 'Osaka Carbon Conference & Fair 2008' at the 'New Earth 2008' symposium held at Intex-Osaka from 26 to 28 November 2008.

Human Resource Development in Developing Countries

Japan International Cooperation Agency (JICA) Group Training Project

GEC operated the following seven JICA-commissioned group training courses for engineers and government officials from developing countries, while also enhancing the courses' curricula. In addition to the existing training courses, GEC also launched the 'Capacity Development in Environmental Management (Air and Water Pollution Control) for Middle Eastern Countries' in 2008 with the aim of enhancing policymaking and regulatory capacity to improve air and water pollution in the Middle East which have experienced remarkable industrial expansion and urbanization.

Before the start 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.

Training period	Nationality of participants	Main course contents
Environmental Policy & Environmental Management Systems*		
7 May– 27 June 2008	10 participants from Indonesia (2 participants), Kenya (2 participants), Laos (2 participants), Mauritius, Senegal (2 participants), Ukraine, Viet Nam	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau New Japan Certification Service Co., Ltd. United Nations University, etc <p><u>Lectures</u></p> <ul style="list-style-type: none"> Environmental administration in Japan Experience of Urban Environmental Management in Osaka City Environmental Management System, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Sewage treatment plant Incineration plant, etc <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>
Pollution Controls for Hazardous Substances in the Environment*		
16 June– 8 August 2008	5 participants from Algeria, El Salvador, Macedonia, Philippines, Viet Nam	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government Research Institute of Environment, Agriculture and Fisheries, Osaka Prefectural Government Environmental Management and Technology Center in Kansai Minamata City Toyama Prefecture, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Introduction to hazardous metals Air and water pollution control measures, etc. <p><u>Practical training</u></p> <ul style="list-style-type: none"> Sampling and analysis of air and water, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Waster and sewer facility Minamata Disease Municipal Museum, etc. <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>
Urban Solid Waste Management by Local Government*		
21 August– 21 October 2008	10 participants from Belize, East Timor, El Salvador, Jamaica, Maldives, Mongolia, Sri Lanka, Turkey, Uruguay, Vanuatu	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau Foundation of Environmental Management, Osaka Fukuoka University, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Outline of industrial waste control, etc. <p><u>Practical training</u></p> <ul style="list-style-type: none"> Practice in designing a landfill site, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Recycling plant Final disposing sites, etc. <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>
Air Pollution Control*		
24 September– 12 December 2008	5 participants from China, India (2 participants), Morocco, Pakistan	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau Osaka Environmental Technology and Research Co., Ltd. Nakayama Steel Works, Ltd. Suuri-Keikaku Co., Ltd. Universities, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Planning of Air Pollution Prevention, etc. <p><u>Practical training</u></p> <ul style="list-style-type: none"> Measurement and analysis of flue gas etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Exhaust gas treatment facility Monitoring stations, etc. <p><u>Purpose</u></p> <p>To train engineers and administrative officials and to teach techniques for countermeasures against air pollution.</p>

Environmental Policy & Environmental Management Systems Course



Lecture on environmental management systems

Pollution Controls for Hazardous Substances in the Environment Course



Snapshot of practical analysis training

Urban Solid Waste Management by Local Government Course



Field trip to green recycling center

Air Pollution Control Course



Field trip to coal-fired thermal power plant

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



Field trip to learn about soil contamination control measures

Capacity Development in Environmental Management (Air and Water Pollution Control) for Middle Eastern Countries



Study tour of sewage plant

TRAINING PROGRAMME FOR YOUNG LEADERS, Latin American Countries, Environment (Environmental Conservation) Group



Field trip to Eco Plaza

GEC Networking Project for Former Training Participants

There are 1,050 overseas GEC participants on the network in 111 countries. (as of March 2009)

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

14 November–12 December 2008	21 participants, 3 participants from each of Argentina, Bolivia, Chile, Colombia, Cuba, Peru, Venezuela	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau Osaka City Public Works Bureau Sumitomo Metal Mining Co., Ltd. National Institute for Minamata Disease Toyama Prefecture, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Soil contamination control measures Industrial wastewater control, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Mines Treatment facility for wastewater containing heavy metals, etc. <p><u>Purpose</u></p> <p>To draw up 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>
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Capacity Development in Environmental Management (Air and Water Pollution Control) for Middle Eastern Countries*

23 January–27 February 2009	6 participants from Egypt (2 participants), Iran, Lebanon, Syria (2 participants)	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau Osaka City Public Works Bureau Osaka Prefectural Government Suuri-Keikaku Co., Ltd. Universities, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Methods for formulating prevention programs (air & water pollution) Environmental Impact Assessment, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Air pollution/water pollution monitoring station Sewage treatment plant, etc. <p><u>Purpose</u></p> <p>To enhance the environmental management capacity of central and local government organizations in the target countries to formulate and execute policies and regulatory techniques in the areas of air & water pollution prevention.</p>
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TRAINING PROGRAMME FOR YOUNG LEADERS, Latin American Countries, Environment (Environmental Conservation) Group*

17 February–4 March 2009	13 participants from Argentina, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Guatemala (3 participants), Honduras, Mexico, Paraguay, Peru	<p><u>Cooperating bodies</u></p> <ul style="list-style-type: none"> Osaka City Environment Bureau Osaka City Public Works Bureau Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government Foundation of Environmental Management, Osaka Osaka International House Foundation, etc. <p><u>Lectures</u></p> <ul style="list-style-type: none"> Japan's environment measures, waste treatment & climate change Waste disposal in Osaka, etc. <p><u>Facility tours</u></p> <ul style="list-style-type: none"> Sewage treatment plant Eco Plaza, etc. <p><u>Purpose</u></p> <p>To enhance the environmental knowledge of young people working in environmental fields as well as promoting mutual understanding and amicable relationships through exchanges with students and homestays.</p>
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GEC Networking Project for Former Training Participants*

In an effort to follow up on former JICA 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 and the 'Connect the World' email newsletter, and conducts one-day seminars* to consolidate the network through the exchange of information.

Commissioned by JICA, GEC continued to manage the 'JICA-GEC Network' website for network members in 2008 and updated the site's main page on a weekly basis to provide information to members. In addition, we conducted a survey of members at six and twelve months after their return home to ascertain how they had applied



One-day Seminar in Jakarta

the knowledge and experience acquired from their training since their return, and monitored the progress of their action plans prepared during the JICA group training.

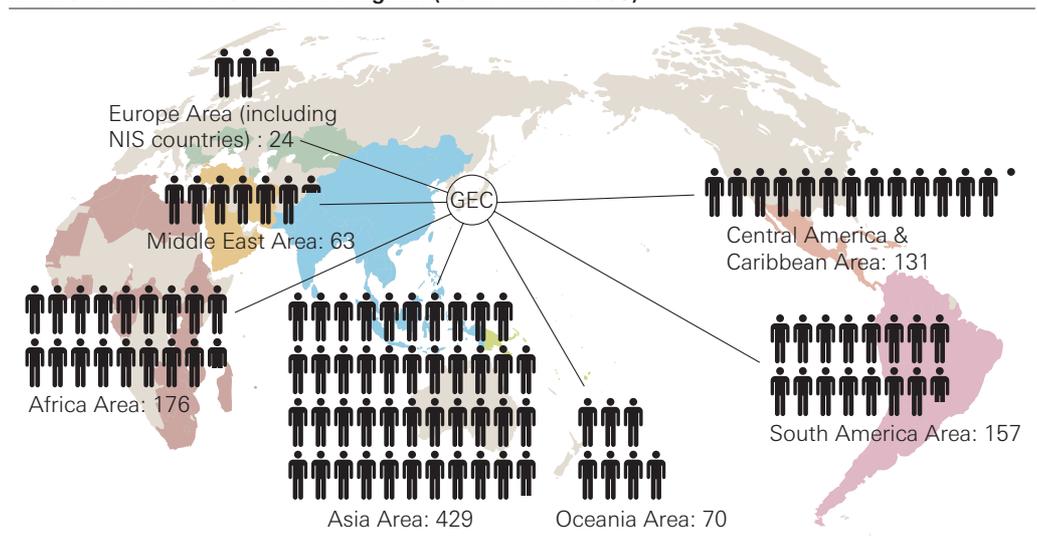
GEC also visited Indonesia from 9 to 14 March 2009, where we hosted a one-day seminar in Jakarta and held a workshop in Bandung. In addition, GEC visited a landfill site in Leuwigajah on 12 March where a landslide claimed the lives of 140 people in 2005 (refer to page 3 article on Bandung).

We will actively continue to host these one-day seminars in the future while considering the needs of repatriated participants and following up on their progress in an appropriate manner.

Upgrading the GEC Participants Network

1998	GEC commenced one-day seminar and publication of newsletters
May 2001	Full-scale operation of the GEC Information Board began
April 2002	GEC Network expanded to include four environmental JICA training courses offered by the Osaka City Government
May 2003	JICA training course curriculum text made available online
April 2004	Country reports, other reports and photo album made available online
April 2005	Change of name to the 'JICA-GEC Network'
January 2007	Publication of mail magazine "Connect the World" begins
March 2009	Publication of questions from training course participants commences

Network Member Distribution Diagram (As of March 2009)



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)
- Indonesia (March 2009)



Tour of Leuwigajah waste disposal site

Dissemination of Environmental Management Systems (EMS)

EMS Training Courses

GEC operates the Internal Environmental Auditor Training Course targeting both corporate and administrative internal environment auditors. The 2008 course took place in July and was undertaken by 10 people.

Dissemination of EMS Overseas

By enhancing the seminars on EMS 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.

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.

Promotion of IETC Projects & Joint PR

GEC Publications
Please refer to page 15.

GEC provides PR to raise awareness of IETC activities by introducing IETC projects both in our newsletters (published in Japanese and English) and on our website.

IETC and GEC co-hosted the G8 Toyako Summit Commemoration International Symposium on 'Low Carbon Society: Towards its Realization with Collaboration of Actors' and the 'UNEP World Environmental Photo Exhibition - Climate Change -' on 9 September 2008, at International House, Osaka. GEC also operated exhibition booths together with IETC at the 'New Earth 2008' symposium held at Intex-Osaka from 26 to 28 November 2008 and the 'One World Festival' held at International House, Osaka from 20 to 21 December 2008, where we introduced each other's activities by distributing pamphlets and newsletters and displaying panels introducing our activities.

We also hosted a series of lectures together with the Osaka Municipal Central Library on 1 and 15 February 2009 entitled 'World Water Tour - Iraq & Thailand' with the aim of improving the public's understanding of IETC and GEC's activities. The first installment on 1 February consisted of a lecture entitled 'Support for Environmental Management of the Iraqi Marshlands' which reported on the main consequences, specific activities and achievements of the Iraqi Marshlands Project operated by IETC. The lecture was attended by about 50 members of the public and was followed by a lively Q&A session, reflecting the high level of public interest.



'UNEP World Environmental Photo Exhibition'



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

PR Activities

Number of visitors to GEC
62 (1 April 2008–31 March 2009)

In order to introduce our activities to a wider audience, GEC undertook aptly-timed public relations (PR) activities by distributing regular newsletters and annual reports in both Japanese and English to affiliated organizations, and through the use of our website. We also screened a PR video and provided an explanation of our facilities to visitors, as well as operating exhibition booths at various events to introduce our activities.

On 15 February 2009, we hosted a series of lectures with IETC and the Osaka Municipal Central Library introducing our activities in support of the local residents of the Tha Chin River basin over a period of three years from 2005.

Then, on 22 February 2009, we made a similar presentation at an event held at the Konohana Community Hall in Osaka City. Through these activities we have strived to raise public awareness of environmental conservation and understanding of our work.



GEC's booth at Tsurumi Ward Festival



Snapshot of the lecture

Hosting of Seminars and Symposia

Hosting of G8 Toyako Summit Commemoration International Symposium on 'Low Carbon Society: Towards its Realization with Collaboration of Actors'

The G8 Summit held in Toyako, Hokkaido in July 2008 emphasized the importance of shifting to a low-carbon society in order to achieve a 50% reduction in global greenhouse gas emissions by the year 2050. Heeding this message, GEC co-hosted the above-mentioned symposium with IETC in Osaka city on 9 September 2008 to discuss ways for the general public and the corporate sector to work towards the realization of a low-carbon society.



Keynote speech by Prof. Ogunlade R. Davidson

Vice Chair of the Intergovernmental Panel on Climate Change (IPCC) Professor Davidson gave the keynote speech in which he introduced the findings of the IPCC Fourth Assessment Report and emphasized that, in order to achieve a low carbon society, it is necessary to change the nature of our development, promote the synergy of climate policy and sustainable development, and ensure fair, participatory decision-making. In addition, Mr. Moriya, Council for Global Environment, Minister's Secretariat, Ministry of the Environment gave a speech on the outcomes of the Toyako Summit and the MOE's 'Action Plan for Achieving a Low-carbon Society', Dr. Nishioka, Senior Visiting Researcher, National Institute for Environmental Studies spoke about the necessity and potential for cutting demand-side energy consumption in order to achieve a low carbon society, while Mr. Chandak, then Officer-in-Charge, UNEP IETC discussed UNEP's climate change policy and the need to reform our lifestyles.

The panel discussion featured presentations by representatives of the energy industry, manufacturing industry, citizens and NGOs on approaches and progressive initiatives towards achieving a low carbon society, followed by a lively discussion in which the speakers and presenters voiced their opinions in response to questions and comments from the audience. The moderator Dr. Nishioka brought the discussion to a close with the remark that we need to start changing society a little at a time with policies toward a low carbon society.

As part of GEC's measures to combat global warming, we purchased carbon offsets* for the greenhouse gases generated by the symposium equivalent to around 8tCO₂.

Support for UNEP Special Envoy Activities

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 and local communities.

In 2008, Special Envoy Kato visited the cities of Cairns, Geelong, Melbourne and Sydney in Australia from 12 to 22 August 2008. First Ms. Kato made a trip to Green Island, which is located approximately 30 km offshore of Cairns and formed from coral reefs. Here she visited the island's environmental conservation facilities which are subject to strict environmental regulations as well as inspecting the coral reefs on the seabed. Next the delegation visited a World Heritage Listed tropical rainforest, and then travelled to Geelong to inspect the mudflats which has a wetlands agreement with the Fujimae mudflats in Nagoya City in Japan. The trip reminded Ms. Kato of the importance of preserving these mudflats to protect



Green Island formed from coral reef



Panel discussion



Panel presentation

Carbon offset

An instrument which aims to compensate for part or all of the CO₂ and other greenhouse gas emissions which inevitably occur in the course of daily life or economic activity, and which prove difficult to reduce with normal emission-reduction efforts, through the purchase of 'carbon credits' in projects which reduce or absorb emissions elsewhere.

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.



Performance with local musicians in Australia



Participating in the panel discussion in Nagoya

the creatures which inhabit them. While in Melbourne, the delegation made a courtesy call to Victoria's Department of Sustainability and Environment, and listened to an explanation on the severity of the state's drought as well as the measures to deal with it. To round off the trip, Ms. Kato held a concert under the theme of environmental conservation and appealed to the local people through music about the importance of protecting the environment.

Special Envoy Kato also attended 'ECO Asia Symposium' held in Nagoya on 12 September 2008 where she delivered the keynote speech and emphasized the importance of preserving the natural environment conveyed with the use of song and images.

Ms. Kato is currently UNEP's sole special envoy, and GEC will continue to support her activities in 2009 to spread awareness of the importance of UNEP's activities and environmental conservation.

Activities Highlights of Ms. Kato, UNEP Special Envoy

Date	Countries Visited
30 October 2000	Appointed as UNEP Special Envoy
17-27 April 2001	Visit to Thailand and Indonesia
10-19 August 2001	Visit to Mongolia
6-13 April 2002	Visit to Korea
2-4 June 2002	Attended the 'WSSD PrepCom 4 Meeting' on sustainable development in Bali, Indonesia
22-31 August 2002	Attended and held a concert at 'WSSD' held in Johannesburg, South Africa
13-24 May 2003	Visit to Uzbekistan and Kyrgyzstan
8-18 September 2003	Visit to Fiji and Tonga
16-23 May 2004	Visit to India
19-28 July 2004	Visit to China
30 August-8 September 2005	Visit to Thailand and Sri Lanka
17-25 August 2006	Visit to Malaysia
13-23 August 2007	Visit to Viet Nam
21 May 2008	Visit to Fujimae Mudflats
12-22 August 2008	Visit to Australia
12 September 2008	Attended 'ECO Asia Symposium'

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 2009).



Upkeep of the Library*

Since 1997, GEC has provided public access (by appointment) to the library containing specialist literature on the global environment and especially UNEP-related publications. In 2008, 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. In addition, GEC distributed copies of the publication entitled 'History of Pollution Control in Osaka City' to interested public and university libraries all over Japan.

Maintenance and Enhancement of Information Systems

GEC has strived to maintain our information provision systems, and has implemented system and software upgrades to enhance operational efficiency and ensure system stability and reliability.

Provision of Facilities to IETC*

GEC continued to provide facilities to IETC.

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.

Publications List

Publications in 2008

Publication name	Contents	Format	Size/pages/date of publication
Philippine One-day Seminar Report FY2007	A report on a one-day seminar conducted in the Philippines in 2007	Booklet	A4/98 pages May 2008 (Japanese version) ①
CDM/JI Symposium 2008	Survey reports from the 2007 CDM/JI Feasibility Study Implementation Group (distributed on the day of the symposium)	Booklet PDF	A4/66 pages October 2008 (Japanese version) ②
Report on the G8 Toyako Summit Commemoration International Symposium on 'Low Carbon Society: Towards its Realization with Collaboration of Actors'	Provides a summary of the details of the International Symposium on 'Low Carbon Society: Towards its Realization with Collaboration of Actors' held in 2008.	Booklet PDF	A4/132 pages December 2008 (Japanese version) ③

Periodicals

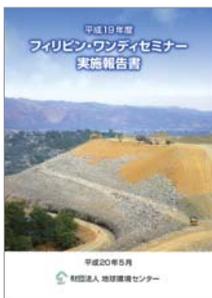
Publication name	Contents	Format	Size/pages/date of publication
GEC Newsletter No.34 (Japanese version)	An introduction to the activities of GEC	Booklet PDF	A4/8 pages August 2008
GEC Newsletter No.35 (Japanese version)	An introduction to the activities of GEC	Booklet PDF	A4/8 pages February 2009
GEC Newsletter No.24 (English version)	An introduction to the activities of GEC	Booklet PDF	A4/8 pages October 2008 ④
GEC Newsletter No.25 (English version)	An introduction to the activities of GEC	Booklet PDF	A4/8 pages March 2009 ⑤
Global Environment Centre Foundation Annual Report 2007 (Japanese version)	Report on project of GEC for fiscal year 2007	Booklet PDF	A4/24 pages July 2008 ⑥
Global Environment Centre Foundation Annual Report 2007 (English version)	Report on project of GEC for fiscal year 2007	Booklet PDF	A4/24 pages September 2008 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 6-7.



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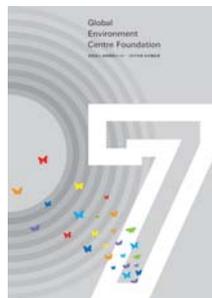
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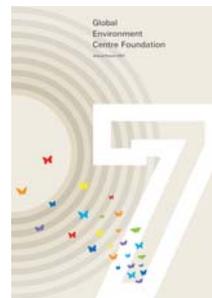
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⑤



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⑦

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.

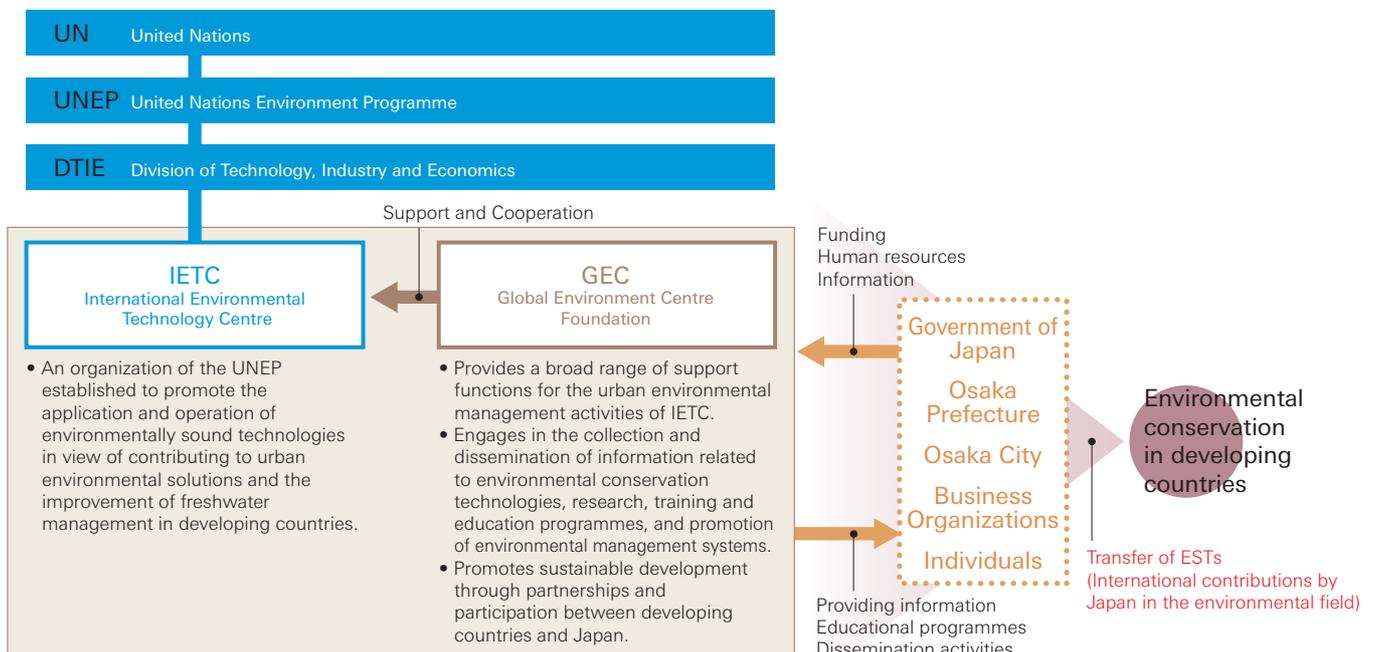
GEC provides logistical support to IETC Osaka and collaborates with IETC on joint projects. It also acts as a liaison between environmental organizations in Japan and the IETC. In this way, it helps to ensure the IETC's smooth and efficient operation. In addition, GEC promotes environmental conservation 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 Telephone: +81-6-6915-4121 Facsimile: +81-6-6915-0181
Endowments	1,754,160,000 yen (as of 31 March 2009)
Activities	<ol style="list-style-type: none"> (1) Providing general support for activities of UNEP relating to urban environmental conservation in developing countries (2) Undertaking research which contributes to the conservation of the global environment, with particular emphasis upon urban environmental management in developing countries (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 (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 (5) Facilitating communications with international organizations, governmental organizations, and research organizations in various countries, in order to contribute to conservation of the global environment (6) Any other activities necessary to achieve the mission of GEC
Number of Staff	24 (including temporary staff, as of 31 March 2009)



*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	MOCHIZUKI, Katsuichi	Former Director General for Environmental Policy, Environment Bureau, Osaka City Government (Former Managing Director, Osaka Bay Regional Offshore Environmental Improvement Center)
Managing Director	MITSUOKA, Kazuhiko	Former Director General for Environmental Policy, Environment Bureau, Osaka City Government
Directors	FUJIWARA, Yukinori NAKAGAWA, Masataka SOURI, Norio YAGI, Yasuo	General Manager, Economic Research Department, Kansai Economic Federation Director, Economy and Industry Division, The Osaka Chamber of Commerce and Industry Professor, Graduate School of Economics, Osaka City University Former Senior Executive Director - Environmental Management, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government
Auditors	IWAMOTO, Kenichi NISHIYAMA, Kenichiro TAGAWA, Seichi	Certified Tax Accountant Director of Environmental Protection Division, Environment Bureau, Osaka City Government Executive Director, Urban Environment Office, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government
Councilors	HIGAKI, Yoji IZUMI, Masahiro KANEKO, Kumao KATAOKA, Shigehiro KATAYAMA, Toru MATSUMOTO, Kiyokazu MIZUNO, Minoru MORIOKA, Toru OSUMI, Kazuyoshi SAKAI, Toshifumi SUZUKI, Yutaka	Director General, Environment Bureau, Osaka City Government Executive Officer, Environmental Considerations, Kansai Electric Power Co., Inc. Chairperson, Japan Council on Energy & Security Attorney Executive Managing Director, Overseas Environmental Cooperation Center General Manager, Environment Department, Osaka Gas Co., Ltd. Professor Emeritus, Osaka University Professor, Faculty of Environmental and Urban Engineering, Kansai University Senior Executive Director - Environmental Management, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government Director General, Osaka International Centre of the Japan International Cooperation Agency Vice President, University of Hyogo

(as of 1 July 2009, honorific omitted; name in alphabetical order <Surname>)

Overview of the UNEP DTIE IETC

Name	United Nations Environment Programme (UNEP) Division of Technology, Industry and Economics (DTIE) 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 tel: +81-6-6915-4581 fax: +81-6-6915-0304 Shiga Office 1091 Oroshimo-cho, Kusatsu-city, Shiga, 525-0001 Japan tel: +81-77-568-4581 fax: +81-77-568-4587 e-mail: ietc@unep.or.jp IETC homepage: http://www.unep.or.jp/
Posts (As of 1 July 2009)	Director, Deputy Director, Senior Liaison Officer, Senior Programme Officer Programme Officers (3)
Programme Activities (implemented in 2008)	<p>Production and Consumption with focus on Waste/3R</p> <ul style="list-style-type: none"> • Integrated Solid Waste Management project for Wuxi, China; Maseru, Lesotho; Pune, India; and Matale, Sri Lanka <ul style="list-style-type: none"> - ISWM Plans and Implementation Strategy were accepted by the concerned authorities and taken up for implementation. - Pilot activities in Maseru were implemented. • E-waste management project <ul style="list-style-type: none"> - 2 guidance manuals were prepared. - E-waste management project in Phnom Penh, Cambodia was launched. • Continued to support the 3R Initiative of the Government of Japan and participated in the 2nd Asia 3R Conference in Tokyo, Japan. • Continued to support the Osaka 3R Consortium and provided advice and inputs to the Consortium's activities in China, Malaysia, Thailand and Vietnam. • Organized the 4th Asia-Pacific Eco-business Forum 'Urban and Industrial Symbiosis' with City of Kawasaki. • Organized a South-South cooperation workshop on waste management in Bali, Indonesia in partnership with Division of Environmental Law and Conventions (DELIC) and Non Aligned Movement Center for South-South Technical Cooperation (NAM CSSTC). • Project on Converting Waste Plastic into Fuel was launched. <p><u>Water and Sanitation</u></p> <ul style="list-style-type: none"> • Pilot demonstration on the application of the phytotechnology to improve water quality in Bocaina City, Brazil continued. The construction of artificial wetland is in progress. • The work on upgrading the IETC software to design artificial wetlands to allow for the inclusion of temperate and cold climates was completed. • Continued the implementation of a project to address the need for improving access to water and wastewater provision in rural communities in environmentally vulnerable areas in Jamaica <ul style="list-style-type: none"> - Several interventions for environmentally sound water provision were identified. - The water supply system was extended. - Completed a preliminary analysis of 43 rural communities that lack water and wastewater provision. - A planning tool that helps to assess the water supply levels was drafted. • A sourcebook and training manual on water use efficiency in the urban and domestic environment was published. • Support for Environmental Management of the Iraqi Marshlands project <ul style="list-style-type: none"> - Provided information management hardware for the Marshland Information Network (MIN) and completed training on its operation and management. The MIN system and its management were handed over to the Iraqi ministry. - Conducted awareness raising workshops targeting women in marshland villages - The work to improve access to safe drinking water in the seventh village was completed. - Pilot project for alternative energy use to facilitate drinking water provision was organized.

- Pilot project for water quality/wetland improvement was implemented.
- Training course on 'Sustainable Management of the Iraqi Marshlands' was organized in Damascus, Syria.
- A project evaluation meeting was held in Kyoto to review the outcomes and results achieved by the project, and to formulate recommendations for future work.
- Maintained and improved the trilingual project website in English, Arabic and Japanese to disseminate the project activities and lessons learnt.

Disaster Management and Prevention

- Project DEBRI - Demonstrating ESTs for Building Waste Reduction in Indonesia
 - Assessed the catalogue of technology systems that are used in the handling of construction and demolition wastes.
 - The Sustainability Assessment of Technology (SAT) tool developed by UNEP was used in the identification of waste technology systems and solutions.
 - Developed a Waste Management Mechanism (WMM) - a management plan that ring-fences the debris waste management equipment.
 - Organized capacity building workshops using the WMM document.
 - The essential economic barriers in implementing the project were identified.
 - A detailed report was developed, and policy suggestions and recommendations were made.
- With GEC, initiated a study on 'Japanese Cities and Urban Vulnerability in the context of Urban Environmental Management'.
- The Asia Pacific Task Force on Urban Risk Reduction was founded, and IETC provided specific inputs relating to the interrelationships between environmental management and risk reduction strategies to the Task Force.
- Provided advice and technical assistance to the cyclone disaster in Myanmar (2–3 May 2008), and the earthquake disaster in P.R. China (12 May 2008).

Others

- Participated in One World Festivals
- Delivered a lecture on IETC's activities focusing on the Integrated Solid Waste Management at Ryukoku University.
- Delivered a keynote address at the 4th International Pro Europe Congress—From Waste to Resource Management.
- Represented UNEP in the UN Panel booth for TICAD IV. Also contributed to the production of a booklet 'Examples of UN Work in Africa' prepared for TICAD IV.
- With ILEC, held a joint exhibition for World Environment Day and Environment Month.
- With GEC, organized the International Symposium on 'Low Carbon Society -Towards its Realizations with Collaborations of Actors'. Also held 'UNEP Environment Photo Exhibition'.
- Co-sponsored the 5th Dialogue on Environmental Education (Asia Cooperation Dialogue) organized by MOFA Japan and delivered presentations.
- Participated in the New Earth 2008 exhibition.

INDEX

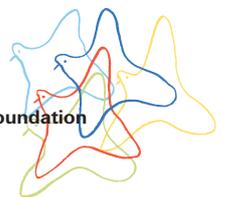
Series of NETT21: Database on New Environmental Technology Transfer in the 21st Century by GEC, and the number of data listings for each topic.

- Database on:
- Air Pollution Control Technology in Japan: 128
 - Waste Management Technology in Japan: 43
 - Water Pollution Control Technology in Japan: 82
 - 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: 241
 - 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: 1,465 data listings (as of 31 March 2009, complete data available in English via the GEC Website)

Stored publications: 6,685 including 414 UNEP-related books (as of 31 March 2009)

**Global Environment Centre Foundation
Annual Report 2008**



Date of issue: September 2009
Issued by Global Environment Centre Foundation (GEC)

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