

Global Environment Centre Foundation

Annual Report 2005



05



contents

1	Foreword
2	Overview of the Global Environment Centre Foundation
4	Activities in Fiscal Year 2005 <ul style="list-style-type: none">• International Cooperation: Technical Support for Developing Countries• Training of Environmental Technology• PR and Educational Activities• Provision of Facilities to UNEP DTIE IETC
16	Projects for Fiscal Year 2006
18	References <ul style="list-style-type: none">• Overview of the UNEP DTIE IETC• Board Members of the Global Environment Centre Foundation• Publications List

Foreword

It would be fair to say that global environment presents one of the biggest challenges to the survival of mankind in the 21st century. Global warming in particular has been labeled as the cause for the recent abnormal weather typified by massive hurricanes, and it will require all of our wisdom to formulate measures to deal with it.

Based on the United Nations Framework Convention on Climate Change, whose ultimate goal is to stabilize the atmospheric level of greenhouse gases bringing about global warming, the Kyoto Protocol finally came into force in February 2005 making the reduction of greenhouse gas emissions mandatory for developed nations. However, the withdrawal from the Protocol of some developed nations including the United States and the increase in emissions by developing nations not compelled to make reductions means that there still remain many issues to be addressed.

Amidst this backdrop, 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 have made the transfer of Environmentally Sound Technologies the focus of our activities in order to help realize environmental conservation and sustainable development in developing nations.

In 2005, GEC implemented the CDM (Clean Development Mechanism)/JI (Joint Implementation) Feasibility Study Programme at the commission of the Ministry of the Environment, Japan in order to promote global warming countermeasures and lead to sustainable development. Furthermore, in addition to accepting the Japan International Cooperation Agency's (JICA) commission to train environmental policymakers and other personnel from developing nations, GEC has been actively tackling environmental issues such as the implementation of Eco-town projects with IETC in order to transfer Japan's Eco-town concept to cities in developing nations.

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

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



January 2007

A handwritten signature in black ink that reads "N. Kumagai". The signature is fluid and cursive.

KUMAGAI, Nobuaki

President

Global Environment Centre Foundation

Background of the Establishment

Establishment of the UNEP DTIE International Environmental Technology Centre

In the 1960s, in conjunction with rapid industrialization, the city of Osaka 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, then 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 nations 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, then 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 DTIE 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 July 3, 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 January 28, 1992 with the expressed purpose of supporting IETC. GEC, a nonprofit organization, obtains support from the local business sector.

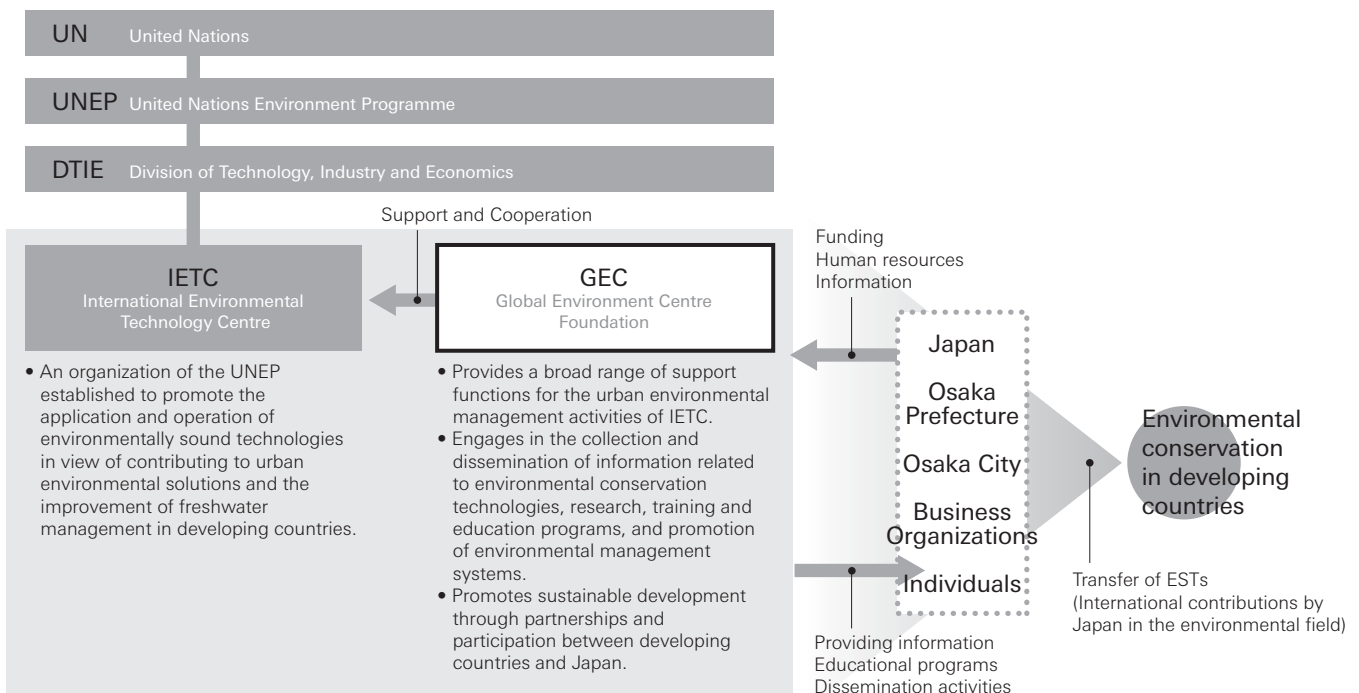
GEC provides logistical support to IETC Osaka and collaborates with IETC on joint projects. It also acts as a liaison between environmental organizations in Japan and the IETC. In this way, it helps to ensure the IETC's smooth and efficient operation. In addition, GEC promotes environmental conservation through original projects such as the collection and dissemination of environmental technological information, training programs, 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	January 28, 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	1,748,610,000 yen (as of March 31, 2006)
Activities	(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 programs, 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	16 (as of August 1, 2006)



Activities in Fiscal Year 2005

In order to promote UNEP DTIE IETC's activities of spreading information on Environmentally Sound Technologies (ESTs) and technology transfer, GEC collaborated with IETC and other related organizations to carry out needs surveys to establish Eco-towns in cities throughout Asia. GEC then applied the survey results to co-host an open session entitled "Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region" with IETC, APO and CITYNET at the "Eco-Products International Fair 2005" in Bangkok, Thailand.

In an ongoing process to overhaul our environmental technology database "NETT 21", GEC updated the "Waste Treatment Technology in Japan" database in 2005.

As a part of our international cooperation within developing nations, GEC also conducted a field survey with the help of a support team and drafted an environmental map in order to bolster the environmental activities of local residents of Thailand's Tha Chin River basin.

In terms of our contribution to combating global warming, GEC continued efforts in 2005 to unearth promising projects and accumulate knowledge for the CDM (Clean Development Mechanism) and JI (Joint Implementation) in our role as secretariat of the CDM/JI Feasibility Study Programme commissioned by the Ministry of the Environment, Japan. GEC provided information acquired through participation in the CDM Executive Board and the JI Supervisory Committee on our website, and presented exhibition booths at COP11 and COP/MOP1 held in Montreal, Canada.

Carrying on from 2004, GEC offered five JICA training courses to train personnel from developing nations. GEC also expanded the content available on the "JICA-GEC Network" and conducted surveys on the use of knowledge and experience acquired by former training course participants upon return to their countries with the aim of following up on their progress and better understanding the needs of developing nations.

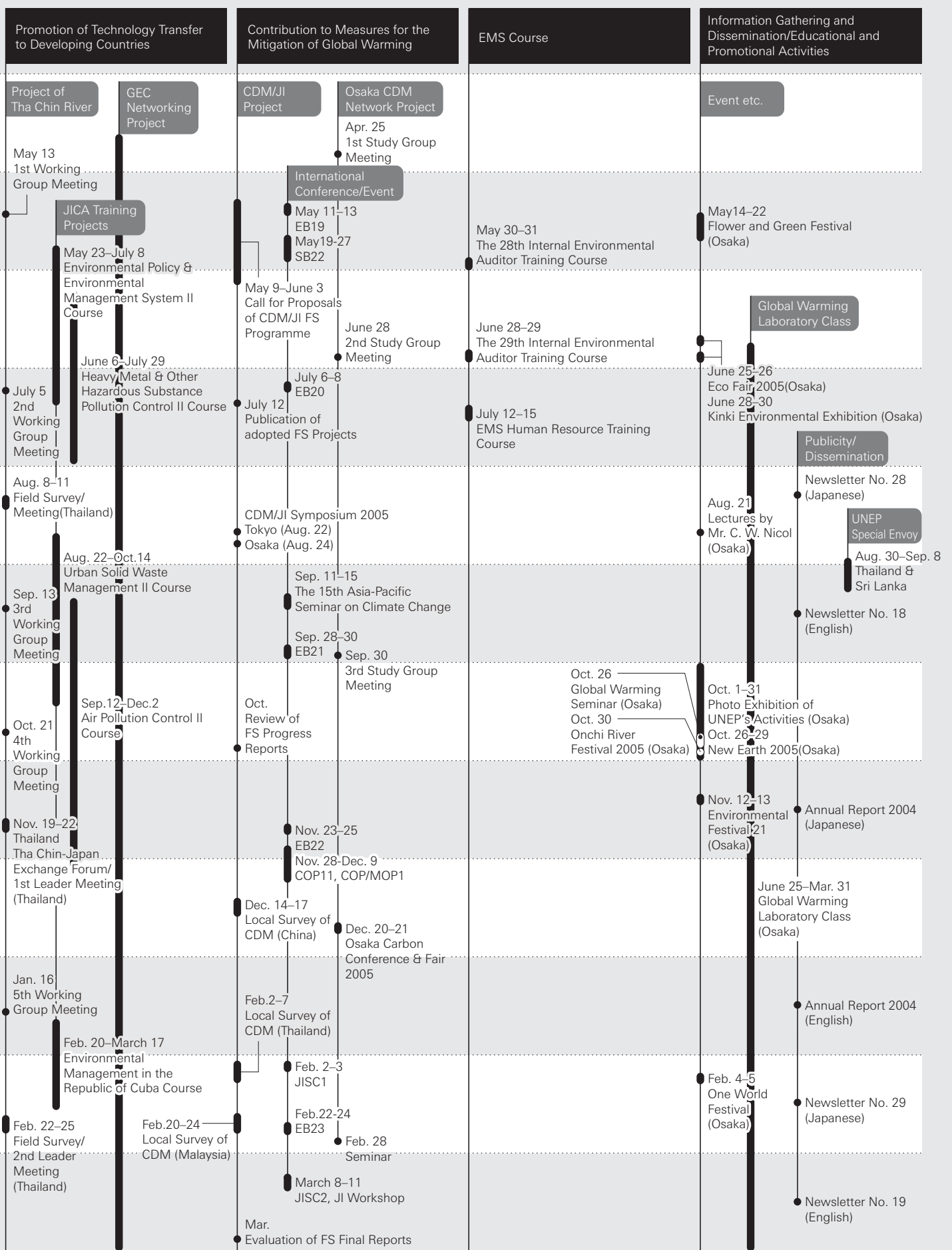
GEC worked to spread awareness of Environmental Management Systems (EMS) by conducting the "Internal Environmental Auditor Training Course".

In August through September 2005, UNEP Special Envoy Ms. Tokiko Kato visited areas in Thailand and Sri Lanka affected by the Indian Ocean tsunami.

In October, GEC worked to promote an awareness and understanding of our projects by hosting a side event entitled "Global Warming Seminar" as well as presenting a booth exhibit at the "New Earth 2005" symposium.

Projects Supporting UNEP DTIE IETC

April, 2005	IETC
May	May 16-27 UNEP Project on Support for Environmental Management of the Iraqi Marshlands- Training Course on ESTs for Drinking Water Provision (Osaka and Shiga)
June	
July	
August	Aug. 27-30 Study Tour for Iraqi Officials (Tokyo, Osaka and Shiga)
September	Oct. 8 Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region (Thailand)
October	
November	Others Nov. Joint Publication of a Booklet entitled Water and Wastewater Reuse
December	
January, 2006	
February	
March	NETT21 Mar. Renewal of Waste Treatment Technology in Japan DB



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

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.

"Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region"

Participants: Approx. 100
Participating Cities: 8

Biomass

Biomass is organic matter produced by living organisms through the photosynthesis of water and carbon dioxide using light from the sun. The carbon contained in biomass is ingested in the living organism's growth process so even if combusted, the amount of carbon dioxide in the atmosphere does not increase.

Zero Emission

A concept which aims to establish a "zero waste" production system using refuse from manufacturing processes as recoverable resources for industry (ISO terminology dictionary).

Report on Eco-Towns* in Japan

Although IETC has previously been involved in waste management measures, it is now also working on a new project to apply eco-town concept based on knowledge and similar experiences from Japan to developing nations, where there is a need for environmentally-friendly industrialization and industrial development.

To that end, GEC carried out a survey in 2004 with IETC targeting eco-towns in Kawasaki City in Kanagawa Prefecture, Minamata City in Kumamoto Prefecture and Naoshima Town in Kagawa Prefecture. The survey looked at eco-town formation in Japan and its management, the role of affiliated organizations, their challenges and the relationship with "the 3Rs" and the creation of a recycling society.

A similar survey on the eco-town in Kitakyushu City in Fukuoka Prefecture was also carried out in 2005, the results of which were combined with the 2004 survey to draft the document entitled "Eco-Towns in Japan" for use in eco-town initiatives in developing countries.

This document has made a significant contribution to launching IETC projects on development of Eco-Towns in the Asia Pacific Region.

Hosting of the "Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region"

In the Asian region where economic development is moving ahead, there is growing interest in the concept of eco-towns as a means of achieving a balance between the environment and the economy, and IETC has commenced eco-town projects in the region based on the lessons learned from Japan's own experiences in the development of eco-towns.

In association with this work, GEC has carried out a needs survey to set up eco-towns in Asian municipalities in cooperation with CITYNET. With the participation of the eight cities selected as a result of the survey, GEC co-hosted the above entitled session with IETC, CITYNET and APO introducing knowledge and experience gained from Japan's eco-towns and held a discussion on eco-town development in developing nations in the Asia Pacific region. GEC plans to draft a training manual for use in these localities and to promote eco-town projects in the future.



Eco-Town Session

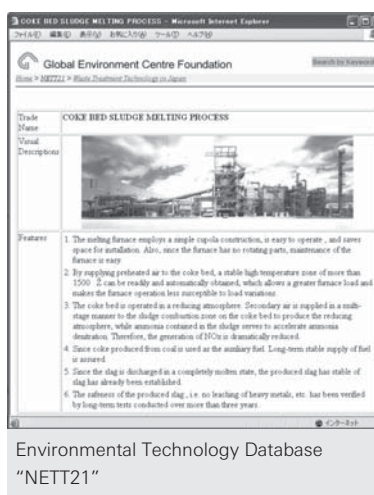
"Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region"

Date	October 8, 2005
Venue	Bangkok, Thailand
Organizers	UNEP DTIE IETC, GEC, CITYNET, Asian Productivity Organization(APO)
Participating Cities (8 cities)	San Fernando(Philippines), Sri Jayawardhanapura Kotte(Sri Lanka), Colombo(Sri Lanka), Hue(Vietnam), Visakhapatnam(India), Bandung(Indonesia), Palembang(Indonesia), Penang(Malaysia)
Programme	<ul style="list-style-type: none"> • Presentation "Biomass* and Zero Emissions* in the Context of Eco Town Development" Mr. Masatoshi Yoda, Corporate Adviser of Ebara Corporation, Japan "Establishing Eco-Towns: Experience from APO's Projects" Mr. Augustine Koh, Director, Environment Department, APO "The Eco-Towns Initiative in Japan: Implications for Cities in the Asia Pacific Region" Mr. Yuichi Nagasaka, Director, GEC "The Criticality of Eco-Towns for Environmentally Friendly Industrial Development in Asian Cities" Ms. Khunying Nathanon Thavisin, Bangkok Metropolitan Administration(BMA) • Panel Discussion Theme: Strategies and Guidelines to adopt Eco-Towns in Cities in Asia-Pacific

Promoting the Spread of Information on ESTs

GEC's environmental technology database "NETT21*" is currently comprised of technical databases covering ten fields and is accessible to the public via GEC's website. In 2005, we updated the "Waste Treatment Technology" database which was first published nine years ago. In updating the database, an expert committee was established and the following changes were made to enable users to access information on Japan's latest waste treatment technology more efficiently and more easily: 1) the adoption of an integrated, common format 2) the classification of waste by category (combustible waste, sludge etc.) and 3) the option to search the database by technology or company name.

We also plan to consecutively update other databases.



Environmental Technology Database "NETT21"

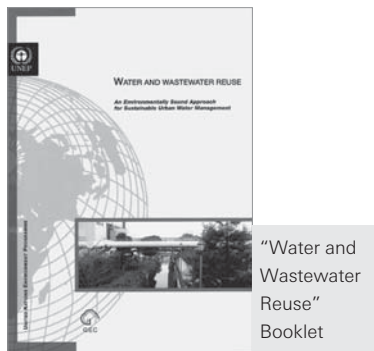
Urban Water Issues

• Booklet on "Water and Wastewater Reuse" and Website on Wastewater Treatment (GESAP)

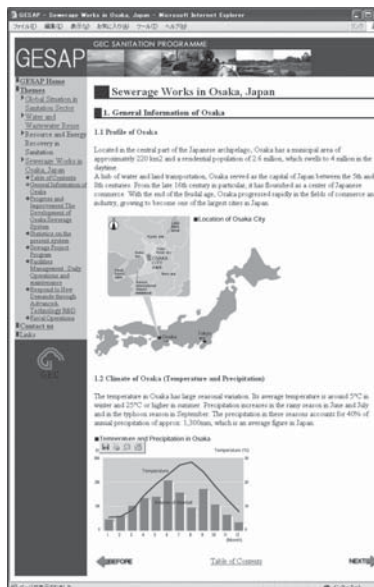
GEC has collaborated with IETC since 2003 to publish a booklet on water and wastewater reuse which targets policymakers in developing countries. This booklet was jointly issued in 2005 and distributed at "The 4th World Water Forum" held in Mexico in March 2006.

With the ever-increasing demand for water brought about by rapid population increases in developing nations, it is essential to effectively use limited water resources by reusing wastewater for various applications. It is also necessary to place limitations on the applications of wastewater reuse and to sterilize it in order to minimize the risk of waterborne infectious diseases. In addition to providing a description of these wastewater reuse policies and guidelines, the booklet introduces examples of wastewater used for agriculture, industry and even drinking water in countries around the world.

In 2005, GEC launched the GEC Sanitation Programme (GESAP) website on wastewater treatment including sewerage. The website currently consists of sections entitled "Global Situation in Sanitation Sector", "Water and Wastewater Reuse" and "Sewerage Works in Osaka, Japan" and an initial draft of new content entitled "Resource and Energy Recovery in Sanitation" has also been completed.



"Water and Wastewater Reuse" Booklet



GEC Sanitation Programme (GESAP) Website

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.

Please refer to page 20 for database entries.

UNEP Project on Support for Environmental Management of the Iraqi Marshlands

Please refer to the IETC website for details.
<www.unep.or.jp>

Condition of the Wetlands

The Iraqi Marshlands were once the largest wetland region in the Middle East renowned for their indigenous ecological systems and biodiversity. However, dam construction and irrigation from the upper basins of the Tigris and Euphrates Rivers together with drainage projects under the former regime have led to a dramatic reduction in their size and have dealt a severe blow not only to the ecosystem but local fishing and agricultural industries as well.



The Iraqi Marshland ©UNEP



People living around the Marshland ©UNEP

• Support for the UNEP Project on Support for Environmental Management of the Iraqi Marshlands*

Since August 2004, IETC has been carrying out the “Support for Environmental Management of the Iraqi Marshlands” project. Within the framework of this project, following the “Sustainable Sanitation Training Course” in 2004, GEC has also been commissioned to carry out the “Training Course on ESTs for Drinking Water Provision” and the “Study Tour for Iraqi Officials”. This specifically involves the creation of a training program, selection of lecturers, drafting of a training text and arranging accommodation and other services for the participants.

As a related project, both IETC and GEC cooperated in the training for “Restoration of Marshlands in Southern Iraq” conducted by JICA in March 2006 by providing lectures and field trips for the 13 Iraqi participants. The lecture began with an introduction of IETC and GEC’s projects followed by an inspection of small-scale and large-scale “johkasou” household waste water treatment systems in Osaka Prefecture with the cooperation of Osaka Prefecture, Toyono Town and the Yamatedai Wastewater Treatment Plant Management Association in Ibaraki City.

Outline of the “Training Course on ESTs for Drinking Water Provision”

Operating Body	UNEP DTIE IETC
Commissioned Body	GEC
Associated Bodies	Waterworks Bureau of Osaka Municipal Government, Osaka City Waterworks Service Association, Maibara Municipal Government, Lake Biwa-Yodo River Water Quality Preservation Organization, Foundation for Advanced Studies on International Development(FASID), Japan International Cooperation Agency Osaka International Center(JICA OSIC), Japan International Cooperation Center(JICE)
Training Period	May 16-27, 2005
Participants	30 participants from Iraq’s Ministry of Environment, Ministry of Municipality and Public Works, Ministry of Water Resources, Basrah Governorate, Missan Governorate, Thi-Qar Governorate and universities
Purpose	Capacity building of Iraq’s policymakers and technicians and the provision and exchange of technical information for the implementation of pilot projects to provide drinking water all with the aim of improving the supply of drinking water in the Iraqi Marshlands
Training Programme	General review of waterworks technology, specific water purification technology including reverse osmosis filtration, evaluation of waterworks projects, and the planning and implementation of pilot projects including participation by local residents



Field trip to small waterworks facility using the reverse osmosis process in Maibara City

Outline of the “Study Tour for Iraqi Officials”

Operating Body	UNEP DTIE IETC
Commissioned Body	GEC
Associated Bodies	Department of Waterworks Osaka Prefectural Government, Osaka City Environment and Sewerage Bureau
Tour Period	August 27-30, 2005
Participants	12 participants including high-level Iraqi government officials, governors from Missan Governorate, Thi-Qar Governorate and Basrah Governorate in southern Iraq, National Assembly Marshland Committee members, academics from national universities in southern Iraq, and eminent members of southern Iraqi tribes
Purpose	By seeing first hand examples of ESTs being implemented in Japan such as Lake Biwa’s conservation activities and Osaka Prefecture’s water supply and Osaka Municipal sewerage facilities, it is hoped that Iraq’s high-ranking officials will recognize the need for ESTs and lead to their active participation and collaboration on the UNEP project to help manage and restore the Iraqi Marshlands
Training Programme	Inspection of the Lake Biwa precinct reed conservation and reed commercialization activities, the Murano Water Treatment Plant and Hirano Sewage Treatment Plant, and exchange meeting with key members of the Osaka Prefectural Government and the Osaka City Government



Visit to the Murano Water Treatment Plant

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

Vigorous environmental activities are being carried out in the Tha Chin River, which is situated west of Bangkok and reputed to be the worst river in Thailand. However, there is a lack of coordinated partnerships among the various active groups so GEC, at the commission of the Thai Government, is providing experience in improving the environment of Japan's rivers and providing support for the creation of partnerships among these groups as well as the invigoration of local activities.

In order to strengthen the conservation activities of local residents from the four provinces occupying the river basin, namely Chai Nat Province, Suphanburi Province, Nakhohn Pathom Province and Samut Sakohn Province, in 2005 GEC tied up with the Mahidol University's Faculty of Environment and Resource Studies, the Thai Government's Pollution Control Department (PCD), the Ministry of Natural Resources and Environment of Thailand and Regional Environment Office 5 (REO5) to provide know-how and support required for river conservation based on similar experiences in Japan with a support team consisting of members with expertise in environmental activities, as well as carrying out a survey and creating an environmental map* of the river.

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

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

Environmental Map

A map of the results of pack tests to determine water quality and surveys of regional ecosystems.



Field Support Activities in 2005

Schedule	August 8-11, 2005	November 19-22, 2005	February 22-25, 2006
Purpose	Field survey/Meeting	Thailand Tha Chin-Japan Exchange Forum, 1st Thai Chin River Basin Leader Meeting	Field survey, 2nd Tha Chin River Basin Leader Meeting (presentation of environmental map, exchange of information)
Contents	Traveled to Tha Chin River with support team of Japanese environmental activity experts selected from GEC, carried out field survey & gathered information. Held exchange with PCD, Mahidol University and the "We Love Tha Chin Club".	At the exchange forum, all 4 provinces reported on their status while the support team introduced Japanese case studies. GEC also proposed drafting an environmental map, which was met with the approval of all province leaders.	Visit to Nakhon Pathom sewage treatment plant and field survey of eco-activity in local schools. At the leader meeting, each province's environmental maps were presented and Mahidol University gave an analysis of the water quality of the four provinces.



Students experiment with pack test




Tha Chin River Basin Leader Meeting





Stabilization pond (outlet to 1st pond)

Tha Chin River

River span: 320km
Flow area: 12,000km²
Inhabitants: 2.5 million







Contribution to Measures for the Mitigation of Global Warming

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 nation (investor nation) provides funds and technical assistance for the implementation of projects which lead to a reduction in greenhouse gas emissions in developing nations (host nations), credits (CER) are issued for the amount of reduced emissions. Developed nations can then use these credits to achieve their own emission reduction targets.

JI (Joint Implementation)

Like CDM, Joint Implementation is also a Kyoto Mechanism. A system whereby developed nations cooperate to implement projects to reduce greenhouse gases, with one developed nation (the host nation) issuing ERUs (credits) and the other developed nation (investor nation) able to use those credits to achieve their own emission reduction targets.

Kyoto Protocol

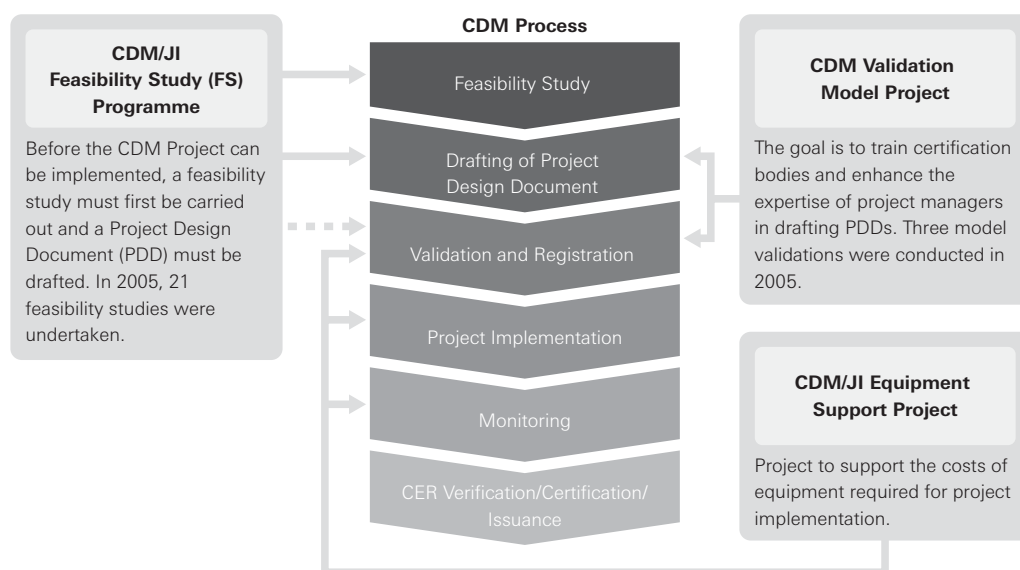
The International Instrument adopted at the 3rd Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC) which sets out a framework for international efforts to mitigate climate change. The protocol ordains targets for the reduction of greenhouse gas emissions in developed nations, 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)).

CDM*/JI* Project Surveys

• CDM/JI Feasibility Study (FS) 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 Programme at the commission of the Ministry of the Environment, Japan. In 2005, 21 projects were selected and feasibility studies were carried out in addition to the drafting of Project Design Documents (PDDs) required for validation assessments. A database containing the results of the feasibility studies carried out to date and the CDM Manual are both available on the GEC website.

CDM Flow & GEC Projects



List of 2005 CDM/JI Feasibility Study Projects*

Category	Project	Country
Waste Management	Jelegong LFG collection & energy recovery	Indonesia
	Bantar Gebang LFG collection & energy recovery	Indonesia
	Laogang LFG utilization & energy recovery	China
	Muribeca LFG to energy	Brazil
	Methane gas collection & energy utilization at Sao Paulo coastal disposal area	Brazil
	Effective use of methane gas at the waste water treatment plant	Ukraine
Biomass	Utilization of biomass at palm oil manufacturing factories in Sabah	Malaysia
	Efficient methane recovery and heat generation in palm oil mill	Malaysia
	Methane and EFB power generation in Terengganu	Malaysia
	Improvement of POME treatment system at palm oil mills	Malaysia
	Rice based fuel-ethanol production	Vietnam
	Production of bio-diesel fuel from soybean oil	Brazil
	Promotion of palm oil based bio-diesel	Thailand
	High quality fuelization of waste biomass and its advanced utilization	Indonesia
Biomass + Afforestation/ Reforestation	Eucalyptus plantations and use of biomass energy	Laos
Afforestation/Reforestation	Low income community mangrove reforestation	Fiji
Others	Xinjiang Urumqi Tuoli 30MW wind farm	China
	Talubin river basin mini-hydropower project	Philippines
	Integrated micro-hydropower project on Banjarcahyana	Indonesia
	Recovery and destruction of HFC23 from refrigerant gas plant	Russia
	Heat recovery system at the sponge iron kilns in Orissa	India



CDM/JI Feasibility Study Projects in 2005

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



Waste Landfill (Kajima Corp.)



Eucalyptus Plantation (Oji Paper Co., Ltd.)



Waste Water Treatment Plant (Shimizu Corp.)

Collection and Distribution of CDM/JI related Information

The task of collecting and providing the updated information on globally-discussed rules is essential to support efforts towards the implementation of CDM/JI projects. GEC participated in the 22nd session of the Subsidiary Bodies of the UNFCCC (SB22), the CDM Executive Board (EB*) and the JI Supervisory Committee (JISC*) and other international forums, where we gathered information as well as providing it on our website. GEC presented a display booth at the UNFCCC COP*11 & COP/MOP*1 where we introduced the efforts of the Ministry of the Environment, Japan as well as our own and gathered the latest information.



COP/MOP1

EB (CDM Executive Board)

The supervisory body for the CDM responsible for authorizing baseline and monitoring methodologies and guidelines.

JISC (Joint Implementation Supervisory Committee)

Responsible for the substantive administration and supervision of JI including determination of relevant procedural rules.

COP (Conference of the Parties)

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

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

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

Osaka CDM Network

In order to promote the active participation of companies located in the Kansai region, GEC set up the "Osaka CDM Network" in February 2004 in coordination with the Environment ISO Group of Kansai Branch, OISCA and the Business Innovation Centre Osaka.

In December 2005, the "Osaka Carbon Conference & Fair 2005" marked the first meeting of its kind to be held in Japan. In addition, three workshops and one external presentation were also convened.

As of August 2006, 19 companies are members of the Osaka CDM Network.



Osaka Carbon Conference 2005

Study on New Energy Systems

GEC is continuing its work of managing and collecting data obtained from the solar power generator installed atop the roof of the GEC office building and other equipment in an attempt to test their long-term durability and verify the demonstration facility as a new energy system.

Human Resource Development in Developing Nations

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 measures for environmental improvement in his or her country based on the findings and competence acquired through the training.

Environmental Policy and Environmental Management Systems II



Field trip to the quasi-national park visitor centre

Heavy Metal and Other Hazardous Substance Pollution Control II



Analysis of mercury content in hair

Urban Solid Waste Management II



Lecture at Fukuoka University on sanitary landfill

Air Pollution Control II



Field trip to learn measuring instruments

Japan International Cooperation Agency (JICA) Group Training Project

Commissioned by JICA, GEC has continued to offer the following five group training courses while enhancing their respective curricula. The courses target administrative officials and engineers in developing countries. Participants must present their "Country Report*" at the start of the session and an "Action Plan*" at the end of training in all training courses.

Training period	Nationality of participants	Main course contents
Environmental Policy and Environmental Management Systems II*		
May 23– July 8, 2005	9 participants from Afghanistan, Argentina, Indonesia, Malaysia, Morocco, Pakistan, Serbia and Montenegro (2 participants), the Philippines	<ul style="list-style-type: none"> • Cooperating bodies - Osaka City Environment and Sewerage Bureau etc. • Lectures/Discussion/Tours - Global environmental preservation, sustainable development and EMS - International initiatives to protect the environment etc. • Purpose To master pragmatic and practical methodologies, such as the framing of environmental policies, techniques of the environmental assessment, guiding corporation policies, and methods of enlightening citizens.
Heavy Metal and Other Hazardous Substance Pollution Control II*		
June 6– July 29, 2005	6 participants from Brazil, China, Ghana, Pakistan, Tunisia, Vietnam	<ul style="list-style-type: none"> • Cooperating bodies - Environmental Pollution Control Center, Osaka Prefecture etc. • Lectures - Introduction to heavy metal pollution - Air and water pollution control measures etc. • Practical training - Sampling and analysis of air and water etc. • Facility tours - Waste incineration plant etc. • Purpose 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.
Urban Solid Waste Management II*		
August 22– October 14, 2005	9 participants from Chili, Dominican Republic, Lesotho, Mongolia, Morocco, Sri Lanka (3 participants), Venezuela	<ul style="list-style-type: none"> • Cooperating bodies - Environmental Management Bureau, Osaka City etc. • Lectures - Outline of waste management etc. • Practical training - Practice in designing a landfill site etc. • Facility tours - Recycling plant, Final disposing sites etc. • Purpose 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.
Air Pollution Control II*		
September 12– December 2, 2005	8 participants from Albania, Argentina, Chile, China, Cuba, Egypt, Mexico, Thailand	<ul style="list-style-type: none"> • Cooperating bodies Osaka City Environment and Sewerage Bureau, Osaka City Institute of Public Health and Environmental Sciences etc. • Lectures - Basic knowledge on air pollution etc. • Practical training - Measurement and analysis of flue gas etc. • Facility tours - Exhaust gas treatment facility etc. • Purpose To raise engineers and administrative officials having leadership and technique capable of taking comprehensive and planned counter measure against air pollution.

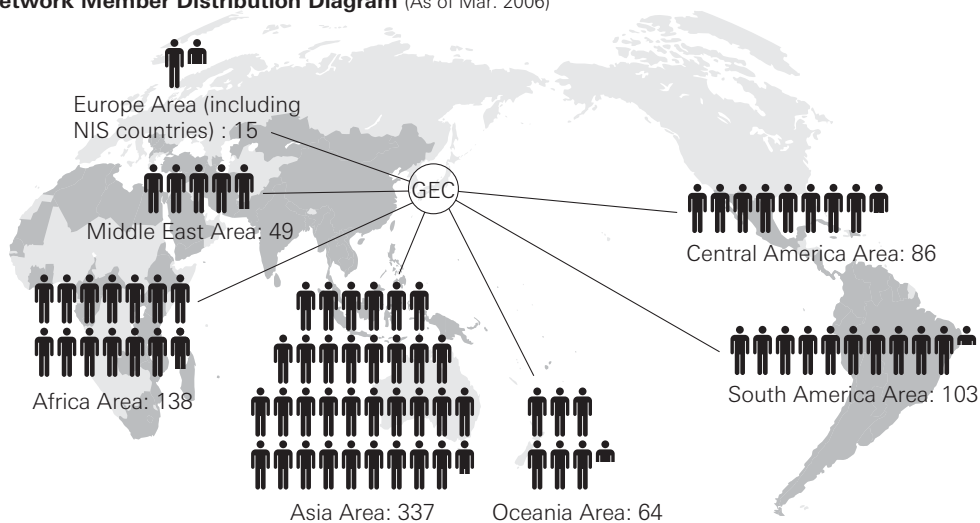
Environmental Management in the Republic of Cuba*

February 20– March 17, 2006	10 participants from Cuba	<ul style="list-style-type: none"> • Cooperating bodies Osaka City Environment and Sewerage Bureau, Kwansai Gakuin University etc. • Lectures - Environmental management in Japan etc. • Facility tours - Air pollution monitoring facility etc. • Purpose To cultivate an ability to formulate a comprehensive environmental management plan, taking into consideration measures against public nuisance caused by industry and urban life as well as sustainable development and environmental conservation.
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GEC Networking Project for Former Training Participants*

In an effort to follow up on former JICA participants and better ascertain the needs of developing nations, GEC has established a network for former training course participants (GEC Network), publishes the GEC PLAZA newsletter and conducts one-day seminars*. We are also promoting the use of the Internet by launching the member-based "GEC Network" website. In 2005, the website name was changed to the "JICA-GEC Network" after we were contracted by JICA, since which time we have been working to expand the site's content and conducting surveys of former participants upon their return to their home countries in order to learn how they are applying the knowledge and experience they acquired through the training courses.

Network Member Distribution Diagram (As of Mar. 2006)



Environmental Management in the Republic of Cuba

In the 1992 "Earth Summit", Cuba publicized its environmental policy and has been improving its legal system and administrative mechanisms, and cultivating human resources in the environmental field. JICA has supported Cuba's efforts by making the nation one of its priorities in the field of environmental cooperation, and with the cooperation of GEC, established this Course in 2001 under a five year plan. Over those five years, the course accepted 49 participants and came to a close in 2005.



Lecture at United Nations University on the Internet

GEC Networking Project for Former Training Participants

There are 792 overseas GEC participants on the network in 98 countries. (as of Mar. 2006)

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 (1999)

Malaysia & Vietnam (2000)

Indonesia (2001)

Egypt (2002)

Dissemination of Environmental Management Systems (EMS)

EMS Training Courses

Carrying on from 2004, the "Internal Environmental Auditor Training Course" was conducted twice in 2005. We also offered the "EMS Human Resource Training Course" targeting municipal governments and their affiliates a total of ten times.

Dissemination of EMS Overseas

By enhancing the EMS lectures we offer within the five JICA training courses, we have succeeded in expanding our reach overseas including developing nations.

GEC Publications

Please refer to page 20

Photo Exhibition :
“UNEP Activity Exhibition
–the Iraqi Marshlands
Project and UNEP Special
Envoy Ms. Tokiko Kato*”



UNEP Activity Exhibition

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.



Together with people from the Chuaphloeng Community, Bangkok (Thailand)



Train damaged by the tsunami (Sri Lanka)

Promotion of IETC Projects & Joint PR

Joint PR Projects

GEC provides PR to raise awareness of IETC activities in the form of articles relating to IETC projects both in our newsletters (published in Japanese and English) and on our website.

We operated a display booth and performed PR activities together with IETC at the “New Earth 2005” held at Intex Osaka from 26 to 29 October 2005. We also hosted a photo exhibition* at the Eco Museum of Osaka from 1 to 30 October 2005 under the theme entitled “UNEP Activity Exhibition—the Iraqi Marshlands Project and UNEP Special Envoy Ms. Tokiko Kato”.

Joint Overseas Seminar

In collaboration with IETC, APO and CITYNET, GEC co-hosted a thematic session at the “Eco-Products International Fair 2005” held in Thailand in October 2005 entitled “Environmentally Sustainable Industrial Development and the Concept of Eco-towns in the Asia Pacific Region” in order to support IETC's projects to transfer eco-towns to developing nations. The session was attended by participants from the eight cities identified in GEC's preliminary needs survey (see page 6 for details).

Support for UNEP Special Envoy Activities

Since 2001, GEC, commissioned by the Ministry of the Environment, 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.

From 30 August to 8 September 2005, Ms. Kato visited Thailand and Sri Lanka, especially those places worst affected by the Indian Ocean tsunami which occurred at the end of 2004, to see first hand the living conditions of the local residents, the state of the environment and the activities of NGOs in addition to holding charity concerts. To commemorate Ms. Kato's five years as UNEP Special Envoy, GEC published a pamphlet (in Japanese and English) and a booklet (in English) outlining Ms. Kato's activities, which was then used for PR activities.



Singing with children in Taptawan Village, Phang Nga Province, Thailand

Activities Highlights of Ms. Kato, UNEP Special Envoy

Date	Countries Visited
October 30, 2000	Appointed as UNEP Special Envoy
April 17-27, 2001	Visit to Thailand and Indonesia
August 10-19, 2001	Visit to Mongolia
April 6-13, 2002	Visit to Korea
June 2-4, 2002	Attended the “WSSD PrepCom 4 Meeting” on sustainable development in Bali, Indonesia
August 22-31, 2002	Attended and held a concert at “WSSD” held in Johannesburg, South Africa
May 13-24, 2003	Visit to Uzbekistan and Kirghiz Republic
September 8-18, 2003	Visit to Republic of the Fiji Islands and Kingdom of Tonga
May 16-23, 2004	Visit to India
July 19-28, 2004	Visit to China

Hosting of Seminars and Symposia

Hosting of the "Global Warming Seminar*" as a side event of the "New Earth 2005"

On 26 October 2005, GEC hosted the "Global Warming Seminar" at the Cosmosquare International Education and Training Center as a side event to the "New Earth 2005" held at Intex Osaka.

The seminar began with the keynote speech from Ms. Kazuko Murata, Vice President of World Watch Japan entitled "The Current State of Global Warming", and featured the Global Warming Laboratory Class presented by the Osaka Environmental Counselors Association(OECA) as well as case reports on relevant environmental measures.



Keynote Speech by Ms. Kazuko Murata

CDM/JI Symposium 2005*

Since 2000, GEC has held events together with the Ministry of the Environment, Japan to raise awareness and understanding of CDM/JI projects. GEC held the "CDM/JI Symposium 2005" on 22 August 2005 in Tokyo and 24 August 2005 in Osaka. The symposium consisted of a panel discussion and reports on CDM/JI feasibility studies carried out in 2004.

PR Activities

In order to introduce our activities to a wider audience, GEC regularly publishes and distributes newsletters and annual reports in both English and Japanese.

GEC also conducts PR activities by presenting exhibition booths at several events.

We are also working to spread awareness of our projects and deepen understanding of global warming among schools through the operation of the Global Warming Laboratory Classes* in Osaka prefectural primary schools, which we began in 2003 at the commission of the Osaka Environmental Counselors Association (OECA).

Upkeep of the Global Environment Library*

The library has been open to the public since 1997 and offers a range of references on the global environment, particularly UNEP-related publications. GEC publications (newsletters and annual reports) and other publications (project reports, technical material etc) are organized and posted on the website, partly in PDF format. The collection numbered 6,097 publications (including 342 UNEP-related references) as of Aug. 2006.

Maintenance and Enhancement of Information Systems

As in 2004, GEC continued the maintenance and enhancement of information systems in concert with IETC. GEC also changed our website address in 2005 at the behest of IETC from www.unep.or.jp/gec to <http://gec.jp/>

Provision of Facilities to IETC

GEC continued to provide support for IETC facilities in 2005.

Global Warming Seminar

Participants: Approx. 150



CDM/JI Symposium 2005

Participants:

Tokyo: Approx. 320

Osaka: Approx. 150

Global Warming Laboratory Class

Held 16 times over 2005
(651 participants)



Library Use

The library is open for use on Wednesday and Friday from 10:00 to 12:00 and 13:00 to 17:00 by prior booking. Books are not available for loan, but can be viewed and copied within the library (as of Aug. 2006).



Projects for Fiscal Year 2006

GEC will make even greater efforts and contribute to developing nations tackling environmental conservation in the hope that the 21st Century will develop into a Sustainable Society. We plan to achieve this by supporting IETC and promoting international cooperation to foster environmental conservation while drawing upon the knowledge, experience and dynamism that exists in the Kansai region and the rest of Japan.

In terms of our IETC support projects, we will work with IETC to promote projects for the development of eco-towns in the Asia Pacific region by establishing a strategic committee and co-hosting a session on eco-towns in Singapore.

In order to promote the spread of information on ESTs and technology transfer, GEC is continuing to overhaul our environmental technology database NETT21.

GEC will promote international cooperation towards environmental conservation in Thailand's Tha Chin River project in an attempt to encourage all relevant groups occupying the river basin to work together and of their own accord.

We will contribute to the mitigation of global warming by attending the COP and other international gatherings to both collect and provide knowledge and information, in addition to continuing to implement CDM/JI feasibility studies.

GEC will also continue to offer four JICA training courses while expanding upon their content. Under the guidance of JICA, GEC will enhance the content of the JICA-GEC Network website as well as striving to follow up on the progress of the former training course participants and better understand the needs of developing nations.

In addition to providing support for the activities of UNEP 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.

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) Implementation of Eco-town surveys
- 2) Hosting of "Thematic Session on Environmentally Sustainable Industrial Development and the Concept of Eco-Towns in the Asia Pacific Region" in Singapore
- 3) Updating and improvement of NETT 21 and consideration of ways to make its use more effective
- 4) Updating and improvement of GEC Sanitation Programme (GESAP)

2) Needs survey for Osaka-Asia 3R Technical Support

3) International Cooperation in Developing Countries

- 1) Environmental Conservation Activities Involving Local Residents of Thailand's Tha Chin River Basin: Guiding and supporting efforts for the drafting of an environmental supplementary reader and self-driven cooperation between local environmental groups in addition to enhancing environmental map drafting methods and the collection and organization of environmental information

4) Contribution to Measures for the Mitigation of Global Warming

- 1) CDM/JI Projects
 - Conducting feasibility studies with improved content
 - Hosting symposia to report the results of feasibility studies in 2005
- 2) Collecting and providing information on international conferences
 - Amassing and providing information through participation in international gatherings
- 3) Study on Reduction of Greenhouse Gases using CDM and other Kyoto Mechanisms
 - Offering support to Osaka-based companies through the Osaka CDM Network by provision of CDM data and project participation
- 4) Study on New Energy Systems
 - Collecting data obtained from the solar power generator and other equipment in an attempt to test their long-term durability as verified new energy system facilities

Training of Environmental Technology

1) Human Resource Development in Developing Nations

- 1) JICA Group Training Projects: 4 courses
 - Environmental Policy & Environmental Management Systems II
 - Pollution Controls for Hazardous Substance in the Environment
 - Urban Solid Waste Management II
 - Air Pollution Control II
 - 2) GEC Networking Project
 - GEC will reinforce its network capability by information-exchanges with former participants.
-

2) Dissemination of Environmental Management Systems (EMS)

- 1) EMS Training Courses
 - Operation of training programs such as the "Internal Environmental Auditor Training Course" and "On demand seminars" for municipalities and private enterprises
 - EMS Human Resource Training Course: Targeting the municipalities and their affiliates, this course teaches trainees how to set up EMS.
 - 2) Dissemination of EMS Overseas
 - Through our JICA training courses, GEC is working to spread the adoption of EMS in developing countries.
 - 3) Introduction of EMS within GEC
 - GEC established an EMS within our office in July 2001, and intends to continue its operation into the future.
-

PR and Educational Activities

1) Promotion of IETC Projects & Joint PR

- 1) Joint Public Relations:
 - PR activities including the posting of articles on IETC projects in GEC publications and on our website
 - Cooperating to host a photo exhibition introducing UNEP's activities in continuation of last year
 - 2) Participation in the International Advisory Board (IAB)
-

2) UNEP Special Envoy Project

- GEC supports the environmental activities of the UNEP Special Envoy Ms. Tokiko Kato both in Japan and abroad.
-

3) Maintenance and Enhancement of Information Systems

- Efforts to maintain and upgrade information systems
 - Maintaining and improving the security and user-friendliness of the network for former training course participants' website
-

4) Hosting of Seminars and Symposia

- PR activities targeting local residents, hosting of seminars and forums including the CDM/JI Symposium and making presentations at environmental exhibitions in collaboration with affiliated organizations
-

5) PR Activities

- 1) Publication of GEC newsletters and annual reports
 - 2) Provision of information on GEC activities and the environment over the internet
 - 3) Promoting GEC's activities by attendance at various exhibitions and fairs
 - 4) Accepting tours of GEC facilities
 - 5) Providing education on global warming mitigation measures in schools
-

6) Upkeep of the Global Environment Library

- Broadening the use of our collection of available reading materials by disclosing UNEP-related materials and GEC's own publications on our website in addition to expanding our collection of UNEP-related materials
-

Provision of Facilities to IETC

Providing facilities and equipment to IETC

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	October 30, 1992
Mandate	Promoting the application and transfer of Environmentally Sound Technologies (ESTs) particularly among developing nations 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	Director, Deputy Director, Senior Liaison Officer, Programme Officers (3) (as of September 2006)
Programme Activities (implemented in 2005)	<ul style="list-style-type: none"> • Water and Sanitation <ul style="list-style-type: none"> - Publication of "Water and Wastewater Reuse—An Environmentally Sound Approach for Sustainable Urban Water Management" - Online Publication of "Waste Stabilization Ponds and Constructed Wetlands—Design Manual" - Release of Pamolare II software online • Sustainable Production and Consumption <ul style="list-style-type: none"> - Participation in ministerial conference on the 3R initiatives - Online publication of "Waste Management Guidelines" - Eco-town regional workshop (Bangkok) - Workshop on Enabling Policy Framework for Resource Augmentation (Vietnam) - Workshop on ESTs for Composting (Vietnam) • Disaster Management <ul style="list-style-type: none"> - Online publication of "Environmental Management and Disaster Preparedness : Lessons Learnt from Tokage Typhoon(Typhoon 23 of 2004) in Japan" - Online publication of "Environmental Management and Disaster Preparedness— Building a multi-stakeholder partnership" • Iraqi Marshlands Project <ul style="list-style-type: none"> - Training Course on "Application of Remote Sensing and GIS for Marshlands Assessment and Monitoring" (Amman) - Training Course on "Marshlands Information Network (MIN)" (Amman) - Training Course on "Integrated Water Resource Management (IWRM): Policy and Integration" (Amman) - Training Course on "ESTs for Drinking Water Provision" (Osaka, Shiga) - Training Course on "Community Level Initiatives" (Alexandria) - Training Course on "Wetland Management" (Cairo) - Training Workshop on "ESTs Assessment and Methodology" (Damascus) - Technical Meeting on "Data Collection and Analysis" (Amman) - Technical Meeting on "Pilot Projects Implementation" (Amman) - Technical Workshop on "Phytotechnology Applications for Pilot Sites" (Amman) - International Public Symposium (Tokyo) - Donor Coordination Meeting on Iraqi Marshland Management (Paris) - Japanese Marshland website online - Online publication of "Complete Version of the Roundtable Report" (September 2004) - Publication of booklet "Back to Life" (English, Japanese and Arabic) • Development and updating of the EST Information System (ESTIS) <ul style="list-style-type: none"> - Launch of ESTIS builder in Arabic - Launch of ESTIS in French • Conferences, Events etc. <ul style="list-style-type: none"> - Expert group meeting on "Training Module on Methodology for Assessment of ESTs" (Shiga) - International conference on "ESTs for Water and Sanitation Services at Local Level especially for Poor Urban Areas" (Shiga) - Expert group meeting on "Methodology for Assessment of ESTs" (Shiga) - UNEP Activity Photo Exhibition - Participation in New Earth 2005

Board Members of the Global Environment Centre Foundation

President	KUMAGAI, Nobuaki	Chancellor, University of Hyogo Professor Emeritus, Osaka University
Executive Director	MASUDA, Takafumi	Former Director General/Director of Environment Division, Environment and Sewerage Bureau, Osaka City Government
Directors	AKIYAMA, Yoshihisa KATAYAMA, Toru MATANO, Kagechika MORISHIMA, Akio MORISHITA, Shunzo NOMURA, Akio OHTA, Fusae SEKI, Junichi	Chairperson, Kansai Economic Federation (Kankeiren) Executive Managing Director, Overseas Environmental Cooperation Center Special Adviser, IKEA Japan K.K. (Former Ambassador to Sweden) Chair of the Board of Director, Institute for Global Environmental Strategies Chairperson, Kansai Association of Cooperate Executive Chairperson, Osaka Chamber of Commerce and Industry Governor of OSAKA Mayor of OSAKA
Auditors	KONISHI, Toshiaki SHICHI, Michihiro	Treasure of Osaka City Director General, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government
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(as of August 1, 2006, honorific omitted; name in alphabetical order <Surname>)

Publications List

Publications in 2005

Publication name	Contents	Size/pages/date of publication
Eco-Towns in Japan –Implications and Lessons for Developing Countries and Cities–	Within the context of Japan's pursuit to become a recycling-oriented society, this publication describes the state of Eco-towns currently underway in Japan and explains how the concept was born.	A4/84 pages June 2005 English version
CDM/JI Symposium 2005	Survey reports from the 2004 CDM/JI Feasibility Studies	A4/60 pages August 2005 Japanese version
CDM Manual for Project Developers and Policy Makers	Outlines the latest developments in CDM/JI frameworks, CDM Executive Board, COP etc. Drafted at the commission of Ministry of the Environment.	<ul style="list-style-type: none"> Japanese version: A4/191 pages September 2005 English version: A4/121 pages March 2006
WATER AND WASTEWATER REUSE	An entry-level text for water and wastewater reuse for policymakers which explains the concept of wastewater reuse and describes the application of ESTs which contribute to reuse.	A4/48 pages November 2005 English version

Periodicals

Publication name	Contents	Size/pages/date of publication
GEC NEWSLETTER No.28 (Japanese version)	An introduction to the activities of GEC	A4/8 pages August 2005
GEC NEWSLETTER No.29 (Japanese version)	An introduction to the activities of GEC	A4/8 pages February 2006
GEC Newsletter No.18 (English version)	An introduction to the activities of GEC	A4/4 pages September 2005
GEC Newsletter No.19 (English version)	An introduction to the activities of GEC	A4/4 pages March 2006
Global Environment Centre Foundation Annual Report (Japanese version)	Report on project of GEC for fiscal year 2004	A4/24 pages November 2005
Global Environment Centre Foundation Annual Report (English version)	Report on project of GEC for fiscal year 2004	A4/20 pages January 2006

- 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 Treatment Technology in Japan: 46
- Water Pollution Control Technology in Japan: 94
- 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: 190
- 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 August 2006, complete data available in English via the GEC Website)

- Number of inquiries to NETT21: Overseas: 24; Domestic: 3 (April 1, 2005–March 31, 2006)
- Number of visitors to GEC: 144 (April 1, 2005–March 31, 2006)
- Stored publications: 6,097 including 342 UNEP-related books (as of August 1, 2006)

**Global Environment Centre Foundation
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