

Global Environment Centre Foundation

Annual Report 2002

cdm

wwf3

10th anniversary

nett21

lamphun

awareness

urban

osaka

sustainable

est

global

future

environment

unep

energy

osaka

water expo

nett21

earth

water

halong bay

urban

transfer

est

cdm

global

waste

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ems

dissemination

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global

osaka

new earth

nett21

human

urban

capacity building

forest

conservation

geo-3

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environment

ietc

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climate change

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Tear off four boxes along the dotted line on the front page.
If you're lucky, you get "2002"!
Have fun!

Foreword

Our worldwide approach to global environmental issues has been strengthened as they are significant universal challenges. In 2002, two large-scale international environment conferences were held: the “Johannesburg Summit” in South Africa and “The 3rd World Water Forum” in Kyoto, Osaka and Shiga prefectures. In both conferences, a huge number of participants and many different NGO bodies came from all over the world and had active discussions and exchanges of ideas, making it a milestone year.

Global Environment Centre Foundation (GEC) on the tenth anniversary held various memorial events. One of them was “10th Anniversary Symposium”, inviting Ms. Tokiko Kato, UNEP Special Envoy.

International efforts have been devoted to global environmental issues more than ever before. To follow their efforts, in 2003, we will enhance our approach to the conservation of the global environment in close coordination and cooperation with the UNEP International Environmental Technology Centre (IETC).

We will employ greater efforts to enhance our overseas networks and reinforce cooperation with various sectors, including local economic circles and corporations. Moreover, we will focus all our energies on further promoting and developing our international activities for environmental issues with the achievements and experience we have accumulated since our establishment in 1992.



December 2003

A handwritten signature in black ink that reads "N. Kumagai". The signature is fluid and cursive, with a long horizontal stroke at the end.

KUMAGAI, Nobuaki
President
Global Environment Centre
Foundation

Background of the Establishment

Establishment of the UNEP 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 municipal government and industry. In hopes of extending these benefits beyond its borders, the Osaka City Government has been working to help alleviate environmental problems in developing countries.

With this background, 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 with 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 national Japanese 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 achievement of 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.

- 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 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.

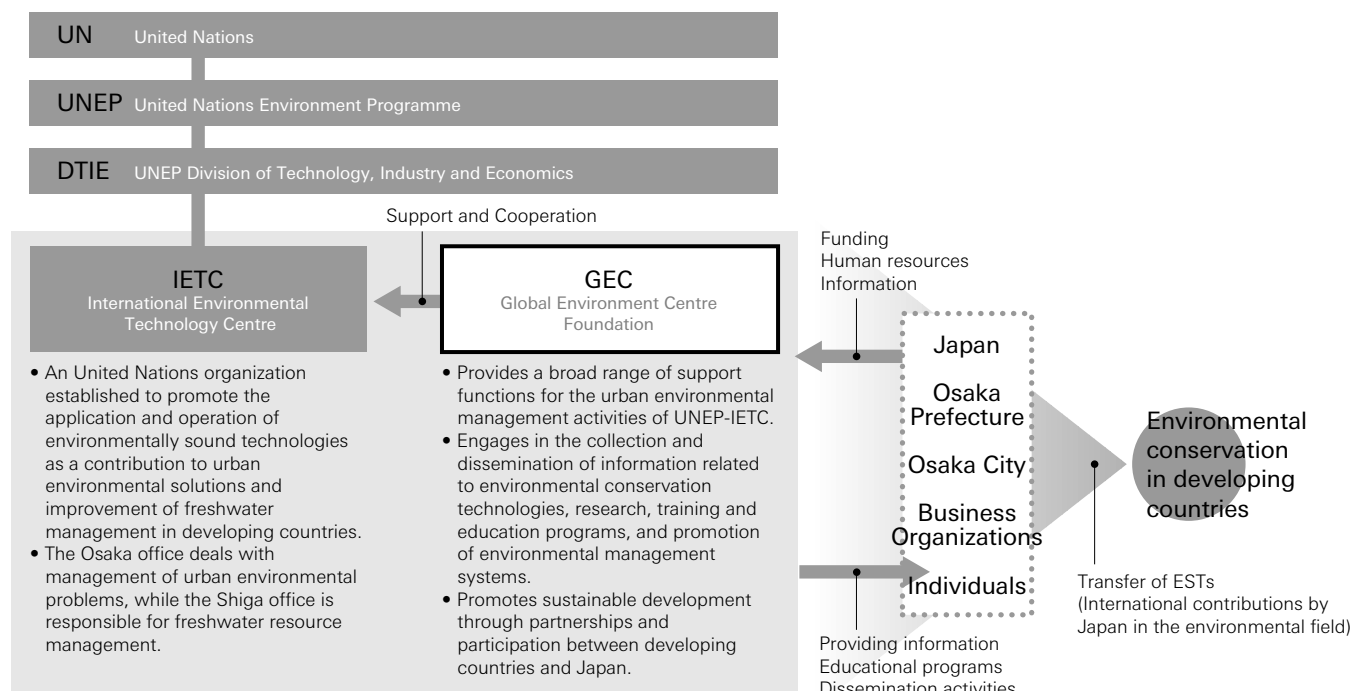
GEC provides logistical support to IETC Osaka and collaborates with IETC on joint projects. It also acts as a liaison between environmental organizations in Japan and the IETC. In this way, it helps to ensure the IETC's smooth and efficient operation. In addition, GEC promotes environmental conservation 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

The Global Environment Centre Foundation (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 UNEP 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	1,728,110,000 yen (as of March 31, 2003)
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 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	17 (as of September 1, 2003)



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Activities in Fiscal Year 2002

As part of its activities in supporting UNEP-IETC, GEC has been cooperating in the preparation of the Guidelines for Environmentally Sound Technology (EST) since 2001.

In relation to this activity, GEC hosted an expert conference, "Guidelines on ESTs and Sustainable Regional Management", and an open symposium titled "Sustainable Regional Management – To Utilize EST for Urban Development" in Shimizu.

GEC also extended, improved, and updated its "NETT21 Japanese environmental technology database" in order to enhance "maESTro", which is the database of IETC.

Furthermore, our staff was dispatched to collaborate with the IETC project in "The 3rd World Water Forum (WWF3)".

For the UNEP Special Envoy, our assistance was given to the exchange associated with "The Year of Japan-Korea National Exchange in 2002" and the "Johannesburg Summit (World Summit on Sustainable Development: WSSD)".

For the "International Cooperation Project to Transfer Environmental Technology to Developing Countries", GEC has been implementing dissemination and awareness raising activities toward environmental conservation in the municipality of Lamphun, Thailand, and GEC also undertook the "Preliminary Survey on Environmental Cooperation" in China, and started a "Feasibility Research of a Distributed and Movable New Energy System" in Mongolia.

GEC continued to organize five JICA training courses.

In addition, GEC has engaged in the Networking Project for former JICA training participants since 1998,

which includes operating Internet-based "GEC Information Board".

Through this project, we succeeded in strengthening our partnership with former training course participants.

Also in 2002, the "Feasibility Study of Clean Development Mechanism (CDM) and Joint Implementation (JI) Project" was conducted as

a global warming measure, and in addition, GEC participated in the "Johannesburg Summit", "The 3rd World Water Forum" and other practical international collaborations.

Moreover, GEC also tried to enrich the contents of Environmental Management Systems (EMS) training.

We also promoted the enhancement of various PR activities, which includes updating our website, publishing news letters, and especially the GEC Foundation's 10th anniversary memorial project.

	International Conference/Event	Projects Supporting UNEP-IETC
April, 2002		UNEP Special Envoy Apr. 6-13 Korea
May		May 27-June 7 Indonesia
June		NETT21 July •Release of "Soil and Groundwater Contamination Survey and Countermeasure Technologies" Data Base •Update of "Japanese Advanced Environmental Equipment" Data Base
July		
August		
September	Aug. 26-Sept. 4 "Johannesburg Summit" (South Africa)	Aug. 22-31 South Africa (Participation in Johannesburg Summit)
October		Waste/Water for cities Oct. 28-30 Attending "ASEAN high-level conference on integrative waste management" (Malaysia)
November	Oct. 23-Nov. 1 "COP8" (India)	
December		
January, 2003		
February		EST Feb. 8 "International Environmental Symposium" (Shimizu, Japan)
March	Mar. 16-23 "The 3rd World Water Forum" (Kyoto, Osaka, Shiga)	



Providing of Office Space and Equipment

GEC provided office space and equipment for UNEP-IETC Osaka

Information Gathering and Dissemination/Educational and Promotional Activities

1 Promotion of Environmentally Sound Technology (EST) Information Dissemination and Technology Transfer

Joint Project for Development of Guidelines on ESTs

IETC has built "maESTro II", which is an EST database focusing on urban environment management, and IETC has been developing "Guidelines on ESTs" which will help the decision makers in developing countries when they identify or select ESTs and ESTPA including verification by third-party institutions, from the year 2001. In March 2002, GEC and IETC held an EST expert conference in Osaka, in which generic criteria were proposed as fundamental requirement for technology assessment.



Participants in panel discussion

In 2002, GEC discussed the provisional generic criteria in the fields of waste, water, energy to determine the issues, and also conducted a trial assessment using those criteria, taking up the waste water treatment technology as an example. Along with the Expert Conference concerning "EST Guidelines and sustainable regional management", GEC also hosted an International Environmental Symposium "Sustainable Regional Management - To Utilize EST for Urban Development" in the city of Shimizu (merged with Shizuoka on April 1, 2003) inviting Dr. Steve Halls, Director of UNEP-IETC.

Management and Improvement of GEC and IETC Information Service

In order to provide information to maESTro II, GEC renovated its database in NETT21 involving lifecycle viewpoint through the addition of information on "Energy-Saving Technology at Business-Related Buildings" collected in 2001.

The contents of "Soil and Groundwater Contamination Survey and Countermeasure Technologies" in NETT21 was expanded, and were released on GEC's website. In addition, a NETT21 needs survey was conducted, by sending a questionnaire to trained overseas staff.

2 Supporting UNEP-IETC Projects

The 3rd World Water Forum (WWF3) as collaborative support to IETC projects

IETC hosted a UNEP session (subcommittee meeting) and special side event in WWF3 held in Kyoto, Osaka and Shiga from March 16 to 23, 2003. To support the preparation of this session, GEC dispatched a staff member to IETC as an assistant for the event from November 26, 2002 to the end of April 2003.

Waste Management

IETC is advancing its effort to build a network on a regional basis in order to promote integrated waste management. IETC hosted an ASEAN high level Consultation meeting in KL Malaysia from October 28 to 30 in 2002, in partnership with the ASEAN secretariat and MOSTE of Malaysia. GEC participated in the meeting and proposed a CDM project, capacity building and training in the waste management field.

ESTPA

Environmentally Sound Technology Performance Assessment

maESTro

A searchable ESTs directory/database developed by UNEP-IETC, is an information system to efficiently collect and disseminate information on environmentally sound technologies (ESTs).

Expert Conference

Experts gather from various fields concerning EST to have consultation about the selection and application of ESTs and related matters.

NETT21

An internet-accessible database on Environmental Technologies in Japan developed by GEC. The purpose of NETT21 is to promote environmental conservation and ESTs transfer in developing countries.

Water for cities

Water related programme for sustainable water management in urban areas is one of the prominent areas IETC is strategically addressing.

As the collaboration project with IETC, GEC is preparing an introductory guide for water and wastewater reuse for policy makers in the developing countries.

Other Activities

UNEP Special Envoy's Activities

On October 27, 2000, UNEP nominated Ms. Tokiko Kato, a singer, as UNEP Special Envoy. Commissioned by the Ministry of the Environment, GEC is supporting domestic and overseas visits by Ms. Kato for planning, attendance, recording, press releases and other jobs.

In the 2002 year of "Year of Japan-Korea National Exchange", she visited Korea from April 6 to 13, 2002, met people concerned with environmental conservation

activities in Korean government offices, the UNEP Korea Committee, NGOs, and other bodies, and exchanged opinions with them.

As UNEP Special Envoy, Ms. Kato participated in summit-related events of the "Johannesburg Summit (World Summit on Sustainable Development: WSSD)" held in Johannesburg, South Africa from August 22 to 31. She also invited summit participants to interact with people related with eco-policy and introduced Japanese culture to them and held a concert.



UNEP Special Envoy, Ms. Kato at the WSSD

Publication of UNEP Global Environment Outlook 3 (GEO-3) Synthesis (Japanese)

Participation in "New Earth 2002", a 4th Global Environment Technology Show International Trade and Symposium

In "New Earth 2002" held at Osaka from October 16 to 19, 2002, GEC collaborated in exhibition related with the Osaka City Government under their request, and also did a PR on the business of IETC and GEC by a presentation with IETC.

Participation in "Enviro2002"

Melbourne, Australia (April 8-11, 2002)

Participation in the "International Cooperation Festival 2002"

Tokyo (October 5-6, 2002)

Participation in the 5th IETC's International Advisory Board

Osaka (December 4, 2002)

Participation in the "One World Festival"

Osaka (January 11-12, 2003)

UNEP Special Envoy

Ms. Kato has so far visited Kenya, Thailand, Indonesia, and Mongolia to encourage associates and has also enlightened people through the mass media.

<This support indirectly benefits IETC by raising the profile of UNEP in Japan and the Asia-Pacific region>

GEO-3 Synthesis

See page 20 for details.

New Earth 2002

This show has been held every three years with the intention of promoting domestic and international distribution of the equipment and other means used for global environmental conservation as well as a technology exchange in order to contribute to the international promotion of conquering global environmental issues.

International Advisory Board (IAB)

Constituted on the basis of the arrangement between the Japanese Government and UNEP, this board deliberates on the budget, projects and other related matters.

Survey and Research Projects

Feasibility Studies on Climate Change Mitigation Projects for CDM and JI

Commissioned by the Ministry of the Environment of Japan in 1999, GEC has served as the secretariat for a Feasibility Study on Climate Change Mitigation Projects - Clean Development Mechanism (CDM) and Joint Implementation (JI). GEC has been finding promising projects for CDM as global warming measures.

In 2002, GEC continued to diligently unearth promising CDM projects, and adopted eight projects for waste management, biomass utilization, afforestation, and other. The results of the projects implemented so far were put into a database and are available on the GEC website (available in English only for the projects in 2003).

Clean Development Mechanism (CDM)

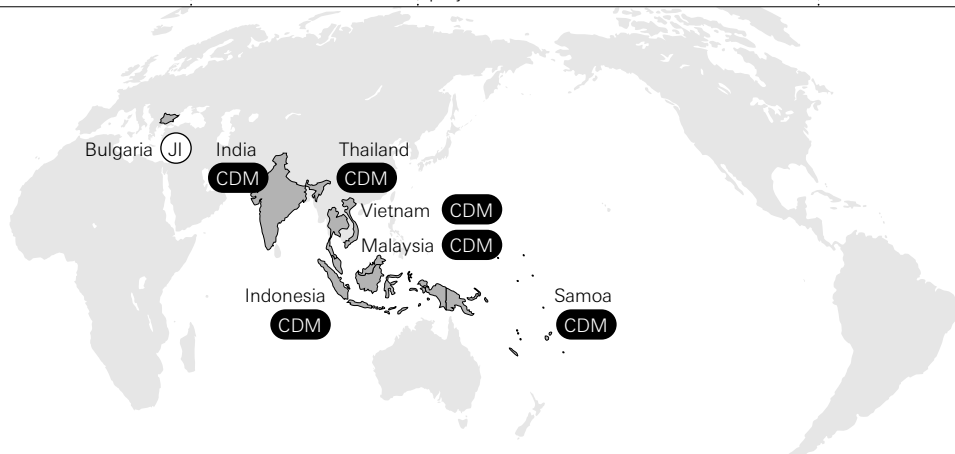
A system to reduce GHG emissions contribute to the sustainable development of the developing countries. Developed countries carry out projects with developing countries by providing technologies and funds. The amount of reduced GHGs emissions from the projects will be shared between both countries.

Joint Implementation (JI)

A mechanism by which developed countries can receive GHG emissions reduction units to meet their Kyoto targets by carrying out projects with other developed countries.

Overview of Feasibility Studies on Climate Change Mitigation Projects for CDM in 2002

Targeted technical fields	Implementation Organization	Title of the feasibility study	Location
Emission reduction of Methane from waste Landfill sites	Obayashi Corporation	Feasibility study on power generation by landfill gas in Thailand	Thailand (near Bangkok)
Utilization of Biomass	EX Corporation	Research for the reduction of methane release from Malaysian palm oil mill lagoon and its countermeasures II	Malaysia
	Overseas Environmental Cooperation Center, Japan	Feasibility study on centralized heat supply system by utilization of Waste Wood and adoption of high-efficiency boiler in Bulgaria	Bulgaria (Haskovo)
	Japan Energy Research Center Co., Ltd.	Feasibility study on fuel ethanol production from molasses in India	India
	Tokyo-Mitsubishi Securities Co., Ltd.	Practical steps in obtaining carbon credits through Malaysia biomass electricity generation project	Malaysia (Sabah Province)
Afforestation	Nissho Iwai Research Institute, LTD	Feasibility study for an environmental forestation project to obtain CO ₂ emission credit in CDM, which will be implemented by private initiative and funds in Vietnam	Vietnam (Hue Province)
	Sumitomo Forestry Co., Ltd.	CDM study on forest plantation projects in East Kalimantan and East Java Province, Indonesia	Indonesia (East Kalimantan and East Java Province)
Other	Pacific Consultants Co., Ltd.	Assistance for the preparation of project design documents of small scale CDM projects in the South Pacific Island Countries	Samoa



Local Surveys of CDM Studies in 2002

- Feasibility Study on Power Generation by Landfill Gas in Thailand (October 27-29)
- Feasibility Study for an environmental forestation project to obtain CO₂ emission credit in CDM, which will be implemented by private initiative and funds in Vietnam (November 4-5)

CDM Forum 2002 (see page 15 for details)

Study on New Energy Systems

GEC continued to execute the maintenance, management and data collection of the solar power generation and other equipment installed on the roof of the UNEP-IETC Osaka Centre office building as a new energy system demonstration facility in order to verify its long-term durability etc.

Preliminary Survey on Environmental Cooperation in Anhui Province and Henan Province in China

The Japan Bank for International Cooperation (JBIC) is currently screening a request from Anhui and Henan provinces in China for a loan contract in Japanese yen to build a natural gas pipeline. The fuel conversion to natural gas in the two provinces will contribute to a reduction of air pollution. In particular, the JBIC hopes to enlist the aid of the Osaka Prefectural and the Osaka City Government to benefit from the technological expertise and experience of Japan's local governments.

GEC sent staff to Anhui Province from October 28 to November 2, 2002 while Osaka Prefectural and Osaka City Government sent staff to Henan Province from November 17 to 22.

Preliminary Survey on Cooperative Study for the Water Quality Management System of Ha Long Bay in Vietnam

From October 30 to November 3, 2002, GEC visited Vietnam for preliminary surveys to get the project underway.

There is concern that increasing industrial and tourism development will result in a negative environmental impact such as water pollution in the Ha Long Bay, which was designated a World Heritage Site in 1994. To protect this valuable natural resource, GEC has proposed supporting activities to establish a water quality management system for Ha Long Bay. To do this, GEC would take advantage of the success of Japan's past efforts to transfer environmental monitoring technology to developing countries, based on Japan's successful experience of water quality management in the closed sea of Osaka Bay.

This project will contribute to raise the capacity of Vietnamese technical personnel.

Survey of Environment Project Development in Mongolia

It is important to positively grasp the needs of developing countries in order to contribute to sustainable development in those countries. Therefore, GEC started surveys to seek the feasibility of the development and dissemination of a new movable energy system of hybrid type that fits the lifestyle of the nomadic people in Mongolia. GEC considers that the technologies, experience and know-how of small to medium businesses in the Kansai area can be effectively utilized for this project.



Ha Long Bay, listed as a World Heritage



A yurt, equipped with a wind power generator and a television antenna



Solar power generation panels installed on the roof of the UNEP-IETC Osaka Centre

Future goals

As a result, all parties determined it necessary to establish methods to confirm the effectiveness of air quality improvement measures by gathering data on the air quality and sources of pollution in both provinces and by predicting future atmospheric concentrations through simulation measurements.

Enclosed waters

Water area where it is difficult to exchange water inside with the outside; such as lakes, marshes, inland seas, and basins. Therefore, contaminated substances are likely to be deposited, and it is difficult to improve the water quality, which permits the eutrophied (over-fertilized) water to cause red tides and malodors.

Distributed and movable new energy system

Means an energy system that utilizes movable wind power generators and solar power generators suitable to their nomadic life.

Features of the project

- 1) An extensive network of Thai-Japan environmental conservation activists, which did not exist before, has been established.
- 2) The project has been progressing while reflecting opinions from participants as much as practicable and also allowing both parties to get good points from each other.
- 3) Japanese civil activist groups introduced practical cases in Japan to overseas activists and had friendly exchanges, which in turn boosted the consciousness of Japanese activists, enabling them to review their activities in Japan from different viewpoints.



Kuang River

Overseas EMS dissemination

Trainees who partook in this course are granted up to five points of the ten points which are required when they apply for IEMA qualification (Associate Environmental Auditor), according to the results of the final examination.

Promotion of Environmental Conservation in Thailand

These activities aim to foster local leaders and to enhance the environmental conservation consciousness of the citizens in Lamphun, Thailand.

Since FY2001, GEC has implemented the "Demonstration Project of Environmental Conservation Activities with Community Participation" in Lamphun, Thailand. In 2002, an "Opening Ceremony for Activities" was held in Lamphun in August, and voluntary activities for environmental conservation were started by citizens.

Working group members from Japan joined the activities, and gave advice on the citizens' activity plan.

On October 16 to 22, concerned Thais were invited to Japan to support the promotion of the Thai voluntary "Citizens participating in practical activities for Kuang River water quality improvement" through their participation in "Onchi River Festival 2002", which is a place for practical river environmental conservation activities in Osaka, and in environment educational activities at a local primary school.

This project was briefly reported in the 3rd World Water Forum Pre-session held in the United Nations University (UNU), Tokyo, on October 16 and 17, and also Assistant Professor Prasarn from the Faculty of Education, Chiang Mai University, one of the Thai leaders, gave a presentation on the activities at the 3rd World Water Forum on March 21, 2003.



A Lamphun municipal officer explaining a simplified effluent treatment device

Promotion of Environmental Management Systems (EMS)**• EMS Implementation in GEC**

GEC has been promoting operation of EMS since July 2001.

• EMS Training Courses

As a training body for environmental auditors in the EMS registration system for ISO 14001 accredited by the Japan Accreditation Board for Conformity Assessment (JAB), GEC held the following courses.

- 1) Environmental Auditor Formal Training Course
- 2) Environmental Auditor Refresh Course
- 3) Internal Environmental Auditor Training Course

• Other Seminars

- 1) Support to the Osaka City government by organizing EMS Implementation Course to ensure their successful EMS expansion in their offices
- 2) On demand seminars for municipalities and corporations
- 3) Cooperation to other training institutes in ISO 9000 (Quality Management Systems) training

• Overseas EMS dissemination

GEC enriched lectures on EMS in the five JICA Training Courses implemented by GEC in order to promote overseas dissemination of EMS. In particular, we adopted a six-day seminar with textbooks certified by the Institute of Environmental Management and Assessment (IEMA), UK, in the training curriculum of the "Environmental Policy & Environmental Management System Course" this year.

Information Collection and Dissemination/Educational and Promotional Activities

10th Anniversary Memorial Events of GEC Establishment

As it was established on January 28, 1992, GEC enjoyed the decennial of its foundation in 2002, in commemoration of which, various memorial events were performed.

A memorial booklet, "10 Years 10 Steps" was issued, and a 10th Anniversary Symposium, "1992-2002-Towards the Future-What Can We Do for the Earth" was held at Intex Osaka on October 17, 2002.



Ms. Kato, UNEP Special Envoy

Since NGOs have recently increased in the field of environmental conservation, in particular, the symposium focused on NGO activities, we asked NGOs working in the Kansai region to report their activities and also requested Ms. Tokiko Kato, UNEP Special Envoy, to talk about her mission activities. GEC made a full report of its business activities during the past ten years. The session was successful, with about 700 participants.

Other events for memorial foundation decennial included a newspaper dialogue (on Nihon Keizai Shimbun, or Japanese Economic Newspaper, often shortened to Nikkei) and the establishment of GEC Membership.

Memorial Events for GEC Foundation Decennial

- The GEC Membership was established
- Eco-bags were manufactured
- Memorial booklet, "10 Years 10 Steps" was issued
- "Decennial commemoration symposium" was held
- "Dialogue to commemorate foundation decennial" was posted in Nihon Keizai Shimbun

Video on Air Pollution Control released

GEC, in collaboration with the Institute for Global Environmental Strategies (IGES), has produced a video film intended for air pollution control training in developing countries.

This video shows the experience of air pollution control in Japan by presenting three examples of unique strategies based on the social situation at that time. These local level efforts which had influence on national pollution control will provide the key to successful air pollution control. The completed video film is currently available in English. GEC will utilize this video for group training in the "Air Pollution Control Course" commissioned by JICA and the e-learning courses of IGES.

GEC addresses the 3rd World Water Forum (WWF3)

As part of WWF3, GEC had a booth in "Water EXPO" on March 18 to 22, 2003, and it also hosted a forum under the theme of "Sustainable Water Technology - Japanese Technologies will Contribute to the World" at the venue of vendor forum of Water EXPO on March 20 with the collaboration from five water technology associated corporations.



A presentation by Assistant Professor Prasarn (WWF3)

In addition, a "Monitoring and Modeling" session was held by the Ministry of the Environment at the Kyoto venue on March 21, in which a Thai leader, Assistant Professor Prasarn from the Faculty of Education, Chiang Mai University made presentation about the dissemination and awareness raising activities performed in Lamphun, Thailand.

Participants of Dialogue

- Mr. Isomura
(Mayor of Osaka)
- Dr. Halls
(Director of UNEP-IETC)
- Mr. Kumagai
(President of GEC)

Source and Cooperation

The production of this film involved the cooperation and provision of images and materials from various organizations, including municipalities of Osaka, Yokohama and Kita-kyushu, as well as corporations such as Kimoto Electric Co., Ltd., Nakayama Steel Works, Ltd. and the Electric Power Development Co., Ltd.

Presenter and Technologies

- Kubota Co.:
Submerged membrane process
- Toshiba Co.:
Data Collection Platform using wind and solar power
- NGK Insulators, Ltd.:
NGK Ceramic filters
- Tsukishima Kikai Co., Ltd.:
Ultra-fine aeration panel
- Ebara Co.:
- The technology for urban storm water
- Large scale filter system

Environmental Technology Information Network

A portal site of environmental technology information made to promote the dissemination of technology that assists environmental conservation.

Development of Environmental Technology Information Network

The Environmental Information Center located in the National Institute for Environmental Studies (NIES) is trying to establish the "Environmental Technology Information Network (tentative title)" in 2003. In order to contribute to the establishment of the network, GEC checked the data source, classified, and sorted the contents of environmental technology information, commissioned by the NIES.

Publicity Activities

In order to introduce the contents of GEC activities widely, we prepared Japanese and English newsletters and annual reports and distributed them to concerned institutions and organizations. GEC also exerted efforts for PR and dissemination activities for GEC organization and projects, such as showing visitors PR video films.

Updated GEC Website

Aiming at a more informative and user-friendly website, GEC's website was renovated in May 2002, including the detailed contents of GEC projects. Also, the data on various disclosure information and reports have been released on the website since 2001.



Management of a Library

A library for experts, with environmental related books mainly consisting of UNEP related publications, has been open (with some limits in use) since 1997. GEC made efforts to improve the library, such as further enhancement of UNEP related publications.

Collections in GEC library	5,294 (including UNEP related publications 266)
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Use of library

Open on Monday through Friday (13:30 to 17:00), accessible on a booking basis. Books can be viewed and copied only in the library (as of July 2003)



Training activity

The Japan International Cooperation Agency (JICA) Group Training Project

Commissioned by JICA, GEC continued to organize the following four training courses for administrative officials and engineers in developing countries. In addition, it organized “Environmental Management in the Republic of Cuba Course”, started from the FY2001, from January 20 to February 14, 2003. Participants must present their “Country Report” at the start of the session, and an “Action Plan” at the end of the training in all training courses.

Training period	Nationality of participants	Main course contents:
JICA Training Course on Heavy Metal Pollution Control		
May 27-July 19, 2002	Egypt (2), China, Pakistan, Brazil, Sri Lanka	<ul style="list-style-type: none"> •Lectures <ul style="list-style-type: none"> - Introduction to heavy metal pollution - Air and water pollution control measure etc. •Practical training <ul style="list-style-type: none"> - Sampling and analysis of air and water - Analysis of heavy metals in soil/waste etc. •Facility tours <ul style="list-style-type: none"> - Refuse incineration plant - Sewage treatment plant/water purification plant etc. <p>Purpose: to develop well-qualified human resources who are able to collectively evaluate emission sources and environmental contamination by poisonous metals and harmful chemical substances, and to establish preventive measures against environmental pollution by poisonous metals etc.</p>
		
National Institute for Minamata Disease		
JICA Environmental Management Seminar		
June 10-July 23, 2002	India, Indonesia, Chile, Malta, Cameroon, Zambia, Garner, Bangladesh, Philippines	<ul style="list-style-type: none"> •Lectures/Discussion/Tours <ul style="list-style-type: none"> - Global environmental preservation and sustainable development - International initiatives to protect the environment - Joint action by governments, industry and citizens etc. <p>Purpose: to master pragmatic and practical methodologies, such as the framing of environmental policies, techniques of environmental assessment, guiding corporation policies, and methods of enlightening citizens.</p>
		
A training lecture at JICA Osaka Centre		
JICA Training Course on Urban Solid Waste Management		
August 19- November 11, 2002	Egypt, Samoa, Sri Lanka (2), China, Ivory Coast, Malawi	<ul style="list-style-type: none"> •Lectures <ul style="list-style-type: none"> - Outline of waste management - Processing of domestic/industrial wastes etc. •Practical training <ul style="list-style-type: none"> - Analysis of composition of waste - Practice in designing a landfill site etc. •Facility tours <ul style="list-style-type: none"> - Recycling plant, Final disposal sites etc. <p>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.</p>
		
Participants with certificates in hand at completion ceremony		

Country Report

A report prepared by each participant describing the environmental administration system, environmental situation and other related issues in his or her country. A session debriefing the report is held at the commencement of the training course to minimize the gap between participants' consciousness of problems and lecturers' knowledge.

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. A seminar is also held here, and listeners (mainly lecturers) give advice to make the proposed plan more practical.

Environmental Management in the Republic of Cuba

With "Earth Summit" in 1992, Cuba publicized its environment oriented policy and has been improving its legal system and administrative mechanism, and the cultivation of human resources in the environmental field. Therefore, JICA focused on the environmental field as a key collaborative area and set up this course as a new country focused training course in cooperation with GEC. It will accept 50 participants for 5 years starting from 2001.

GEC Networking Project for Former Training Participants

There are 628 overseas GEC participants on the network in 85 countries. (as of August 2003)

Training period	Nationality of participants	Main course contents:
JICA Training Course on Air Pollution Control		
September 17-December 6, 2002	Iran, Indonesia (2), Egypt, Cuba (2), China, Pakistan, Brazil	<ul style="list-style-type: none"> •Lectures <ul style="list-style-type: none"> - Basic knowledge on air pollution - Air pollution control technology etc. •Practical training <ul style="list-style-type: none"> - Flue gas desulfurization technique - Environmental management technology etc. •Facility tours <ul style="list-style-type: none"> - Power plant - Refuse incineration plant 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		
January 20-February 14, 2003	Cuba (9)	<ul style="list-style-type: none"> •Lectures <ul style="list-style-type: none"> - Environmental management in Japan - Pollution control measures etc. •Practical training <ul style="list-style-type: none"> - Waste water and solid waste sampling and analysis etc. •Facility tours <ul style="list-style-type: none"> - Sewage treatment plant, Incineration plant etc. Purpose: to cultivate an ability to formulate a comprehensive environment management plan, taking into consideration measures against public nuisance caused by industry and urban life as well as sustainable development and environmental conservation.



A Traffic Safety Environment Research Laboratory

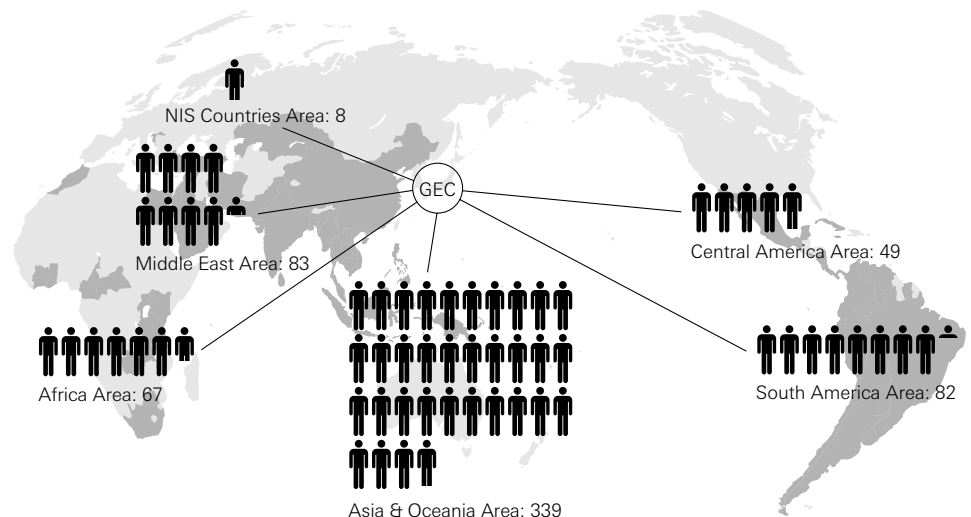


Sewage Treatment Facility

GEC Networking Project for Former Training Participants

In order to provide a follow-up framework for former JICA training participants, one that will facilitate a continuing flow of information with developing countries and enable GEC to continually assess areas of demand, GEC has been engaged in GEC Networking Project. In 2002, through internet-based "GEC Information Board", which is a part of this project, GEC has actively exchanged information with former participants and fully utilized this network. In addition, in cooperation with JICA, GEC computerized technical documents such as JICA training texts so that network members can see them on the GEC website.

Network Member Distribution Diagram (as of August 2003)



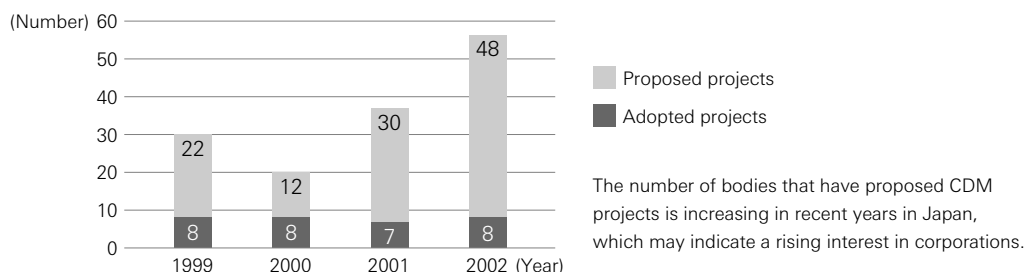
Seminars and Symposia

“Global Warming CDM Forum 2002”

Along with the Ministry of the Environment, GEC co-hosted the “Global warming CDM Forum 2002” in Osaka on July 23, 2002. As the applicants for participation in the forum increased in 2002, an additional forum was also held in Tokyo on July 26.

In the forum, Mr. Takahashi, head of the Global Warming Measures Department, the Ministry of the Environment, delivered a keynote speech, titled “Recent Trends in Japan and the World against the Global Warming Problem”, and Mr. Hiraishi, director of the Institute for Global Environment Strategies (IGES) gave a keynote speech, titled “Summarizing feasibility studies and problems in crystallization of projects”. Besides, reports of 2001 CDM project survey were presented by seven bodies.

Trends in the number of proposed CDM projects



CDM Forum 2002

CDM projects and the application procedure for that year are explained in the forum.

Participants:
Osaka: 250, Tokyo: 290



CDM Forum 2002 (Tokyo)

Other Activities

Contribution to the Johannesburg Summit (World Summit on Sustainable Development: WSSD)

For contribution to the Johannesburg Summit, UNEP-IETC co-hosted a convention of municipalities, titled “Local Action Moves the World”, in Johannesburg, South Africa on August 27 to 30, 2002, with the International Council for Local Environmental Initiatives (ICLEI). The convention was joined by more than 600 heads of municipalities from all over the world. GEC also took part in the session by dispatching its staff, along with the Osaka City Government.

Deputy Executive Director of UNEP Visits IETC and GEC

After paying a courtesy call at the Osaka Prefectural Government office and the Osaka City Government office, Mr. Shafqat Kakakhel, Deputy Executive Director of UNEP, dropped in the UNEP-IETC Osaka Centre and the GEC office to exchange opinions on October 24, 2002.

Vice Minister of the Environment Visits IETC and GEC

On September 18, 2002, Mr. Eiichi Yamashita, Vice Minister of the Environment, visited the offices of UNEP-IETC Osaka Centre and GEC. GEC briefly explained to the vice minister about its activities and guided him through the facilities, requesting his deeper understanding and support.

Collaboration with the Supporting Committee of APEC Virtual Center for Environmental Technology Exchange

GEC joined the consultation and other sessions of the council, operating the APEC Virtual Center for Environmental Technology Exchange (APEC-VC) for the purpose of collaboration.

APEC Virtual Center for Environmental Technology Exchange

Originates in the “APEC Osaka Meeting” held in November 1995, in which it was positioned as a formal joint research project of APEC. Currently it is operated by members from municipalities, corporations, environment related institutes with the support of the Ministry of Economy, Trade and Industry, the Ministry of Foreign Affairs and so on.

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Projects Programs for Fiscal Year 2003

GEC will contribute more positively than ever to the conservation of the global environment, in order to lead the 21st century to a "Century of Environment" that allows sustainable development. To achieve these objectives, GEC will promote collaboration with UNEP-IETC and international activities to conserve the global environment with developing of information technology (IT). In the collaboration project with UNEP-IETC, we will continuously advance the development of "Guidelines on ESTs" to promote the dissemination of environmentally sound technology (EST) and technology transfer, and further we will advance collaboration projects by proposing sustainable water management in cities and other various projects to UNEP-IETC.

GEC will also support various activities of the UNEP Special Envoy.

Under "International Cooperation Projects to Transfer Environmental Technologies to Developing Countries", GEC will continue to disseminate the conservation of environment in Lamphun, Thailand and raise awareness for it.

In its training activities, GEC will continue to organize five training courses commissioned by the Japan International Cooperation Agency (JICA) improving their curriculums.

For the GEC Networking Project for former JICA training participants, we will endeavor to have a better understanding of the needs of developing countries through Internet-based "GEC Information Board".

We will strengthen our follow-up activities for former participants by offering technical materials on our website.

In addition, we will continue to implement activities on the clean development mechanism (CDM) as a contribution to global warming measures.

For the environment management systems (EMS),

GEC will continue to implement its "Internal Environmental Auditor Training Course" and other training to exert efforts for EMS dissemination.

Projects Supporting UNEP-IETC

IETC Support

1) Promotion of Environmentally Sound Technology (EST) transfer	(1) Development of EST Guideline (2) Providing of information to the EST Information System of IETC. (3) Water for cities: programme including publishing and e-learning as an "Environmentally Sound Sewage Technology" (4) Waste Management
2) Dissemination and promotion of EMS	Distribution of EMS training kit of IETC, in the JICA group training course.
3) Providing facilities and others	Providing of office space and equipment.
4) UNEP Special Envoy project	GEC will support the environment-related activities of the UNEP Special Envoy, both domestically and internationally (*).

* This support indirectly benefits IETC by raising the profile of UNEP in Japan and the Asia-Pacific region.

Projects to Providing a Platform for Supporting UNEP and Promoting International Cooperation

Promotion of Technology Transfer to Developing Countries

1) Water quality environment management in Ha Long Bay, Vietnam	Supporting for establishing a water quality environment management system, GEC will hold training course for water quality measurements and measurement plans.
2) Environmental conservation in Lamphun, Thailand	In 2003, GEC will support for organizing "Eco Festival", promotion to the catchment basin network, corrections of manuals for leaders.
3) Environmental cooperation in Anhui and Henan provinces, China	GEC will promote natural gas introduction, which is an environmental project based on a Japanese yen loan, and give guidance for the preparation of the master plan for improvement of the atmospheric environment.
4) Small wind and solar power generation in Mongolia	GEC will implement a field survey of compact hybrid wind and solar power generation facilities suitable to the markets and living situations of Mongolian nomadic people.
5) JICA Training Projects: 5 courses	Heavy Metal and Other Hazardous Substance Pollution Control, Environmental Policy & Environmental Management Systems, Urban Solid Waste Management, Air Pollution Control, Environmental Management in the Republic of Cuba
6) GEC Networking Project	GEC will reinforce its network through information exchange with former participants and others.

Contribution to Global Warming Measures both Domestically and Internationally

1) Feasibility study of CDM and JI	GEC will continue CDM project survey, and hold a CDM forum to report the projects in 2002.
2) Osaka CDM Network Project	GEC will consider the provision of information to corporations in Osaka and support participating in CDM projects.

Promotion of Environment Management System (EMS)

1) EMS Training Courses	(1) "Internal Environmental Auditor Training Course" (2) "On demand seminars" for municipalities and corporations
2) EMS Implementation Course	Training courses on EMS development and implementation for the Osaka City Government and related organizations.
3) Overseas dissemination	Dissemination of GEC's experience on EMS to developing countries through the JICA training courses.
4) EMS Implementation in GEC	GEC will continue the EMS in our office, which has been conducted since July 2001.

Information Gathering and Dissemination

1) Maintenance, management and enhancement of information systems	(1) GEC will manage and upgrade its information system. (2) Will improve the information of NETT21. (3) Improve availability of the "GEC Information Board" of the overseas GEC participants' network.
2) Seminars and symposia	GEC will hold seminars and symposiums in cooperation with various industrial bodies, NGOs and other entities.
3) Public Relations	(1) Publicity of GEC activities via the Internet (2) Publishing newsletters and annual reports (3) GEC will disseminate global warming measures on school education.
4) Promotion of the "GEC Friend-Membership" activities	GEC will promote the activities of the "GEC Friend-Membership", which started on the occasion of GEC foundation decennial.
5) Management of the GEC library	GEC will enhance UNEP related publications etc, and in addition, will promote cooperation with the library room of "Eco Museum of Osaka".

Overview of the UNEP International Environmental Technology Centre

Name	United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC)
Date of Conclusion of the Agreement between Japanese Government and UNEP	October 30, 1992
Mandate	The main role of the IETC is to promote the adoption, application, and operation of Environmentally Sound Technologies (ESTs) to address urban environmental problems such as sewage, air pollution, solid waste, and noise, and the management of freshwater to developing countries and countries with economies in transition.
Approach	Osaka Office management of urban environmental issues Shiga Office management of freshwater resources
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) Administrative/Fund Management Officer Information Network Officer (as of November 2003)
Programme Activities (implemented in 2001-2002)	<ul style="list-style-type: none"> • Information Bulletin, IETC's newsletter INSIGHT, Technical Publications and Report Series • Development and maintenance of the EST information system, including maESTro • Preparation of Publications and training materials on: <ol style="list-style-type: none"> (1) Sustainable management of urban wastewater and stormwater (2) Rainwater harvesting in cities (3) Transport and cities (4) Planning and managing of lakes and reservoirs (5) Energy and cities (6) Environmental Management Systems (EMS) for urban management (7) Municipal solid waste management (8) ESTs in architecture and construction (9) Computer based training for EMS (10) Trenchless technologies (11) ESTs for urban management (12) Phytotechnologies and ecosystem management (13) Urban land use and "Brownfields" • Workshops and seminars on: <ol style="list-style-type: none"> (1) Management practices of lakes and reservoirs focusing on eutrophication (in association with UNEP-GPA) (2) Bioclimatic and ecological design in Architecture (3) Adoption, applying and operating ESTs for sewage in the wider Caribbean region (4) Joint training programme of IETC and Environment Canada on environmental management for urban decision-makers (5) Environment citizenship (6) Environmentally Sound Technology Performance Assessment (EST-PA)

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	MATANO, Kagechika	Former Ambassador to Sweden
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SOMIYA, Isao		Professor, Faculty of Science and Technology, Ryukoku University
TAKEDA, Nobuo		Professor, Graduate School of Engineering, Kyoto University

(As of July 1, 2003, honorific omitted; names in alphabetical order [Surname])

Publications List

Publications

Name of publication	Description	Format/No. of Pages Date of Issue
Global Environment Outlook 3 (GEO-3) Synthesis (Japanese)	The brief version, out of GEO-3 published by UNEP, was translated and published by the Global Environment Bureau of the Ministry of the Environment and GEC.	A4/16 pages July 2002
10 Years 10 Steps: Global Environment Centre Foundation, Osaka, Japan 1992-2002 (Japanese/English)	A decennial memorial booklet describing the progress of GEC over ten years	A4/24 pages August 2002

Periodicals

Name of publication	Description	Format/No. of Pages Date of Issue
GEC NEWSLETTER No.22 (Japanese edition)	An introduction to the activities of GEC	A4/8 pages September 2002
GEC NEWSLETTER No.23 (Japanese edition)	An introduction to the activities of GEC	A4/8 pages February 2003
GEC Newsletter No.12 (English edition)	An introduction to the activities of GEC	A4/8 pages August 2002
GEC Newsletter No.13 (English edition)	An introduction to the activities of GEC	A4/8 pages March 2003
Global Environment Centre Foundation Annual Report (Japanese edition)	Report on projects of GEC for fiscal year 2001	A4/24 pages October 2002
Global Environment Centre Foundation Annual Report (English edition)	Report on projects of GEC for fiscal year 2001	A4/20 pages October 2002

Series of NETT21:

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

Database on:	<ul style="list-style-type: none"> • Air Pollution Control Technology in Japan: 128 • Waste Treatment Technology in Japan: 98 • Water Pollution Control Technology in Japan: 109 • 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: 47 • Soil and Groundwater Contamination Survey and Countermeasure Technologies: 37 • Japanese Advanced Environmental Equipment (provided by JSIM): 621
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Total: 1,449 data listings (as of July 2003, complete data available in English via the GEC Website)

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