

Global Environment Centre Foundation

Annual Report 2001



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Foreword

This year, the Global Environment Centre Foundation (GEC) celebrates its 10th anniversary.

At the Earth Summit (United Nations Conference on Environment and Development: UNCED) in Rio de Janeiro, Brazil in 1992, the main mission of the GEC-supported UNEP International Environmental Technology Centre (IETC)—to transfer environmentally sound technologies (ESTs) to developing countries and countries with economies in transition—was clearly stated in article 34 of Agenda 21, thus giving GEC and UNEP-IETC a meaningful starting point for their activities.

In late summer this year, 10 years after the Rio Earth Summit, the World Summit on Sustainable Development (WSSD) was held in South Africa. Today, environmental conservation is one of the world's most pressing tasks, and people all over the world are tackling the problems in many ways like never before. Over the past decade, in its various activities in support of UNEP-IETC, GEC has received gracious support from the Ministry of Foreign Affairs, the Ministry of the Environment, Osaka Prefectural Government, and Osaka City Government, and leaders in industry and academia. We would like to express our deepest gratitude to all the groups and individuals who have supported us.

Reflecting on GEC's 10 years of its activities, GEC clearly aims to make the 21st century one in which sustainable development is possible: the "Century of the Environment." To achieve this, GEC intends to deepen its collaboration with UNEP-IETC and foster international cooperation that contributes to environmental conservation. With this annual report, it is our hope that a greater understanding and appreciation of GEC activities will be fostered. And we look forward to your continuing support and guidance in the future.

November 2002



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.

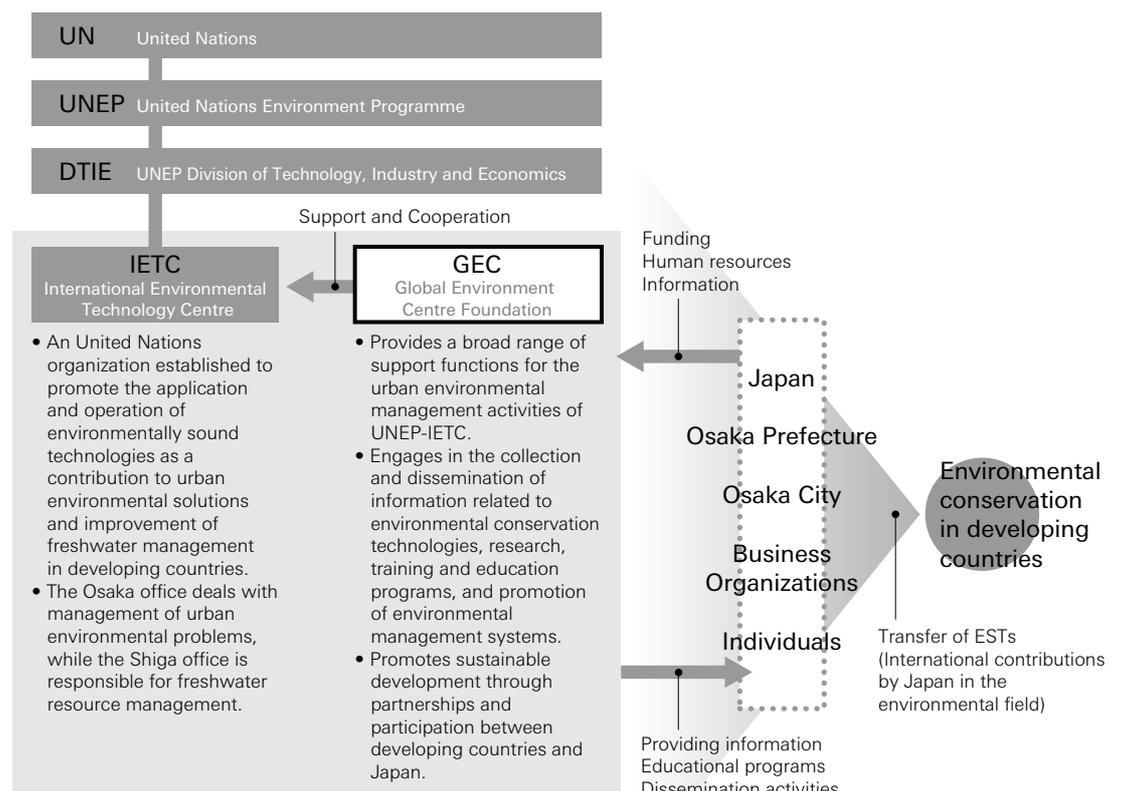
Thus, in all of these ways, GEC's activities make a significant international contribution by Japan in the environmental field.



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	1,718,110,000 yen (as of March 31, 2002)
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	17 (as of July 1, 2002)



Activities in Fiscal Year 2001

In FY2001, GEC implemented the followings as Projects Supporting UNEP-IETC. GEC began offering assistance in UNEP-IETC's projects to draw up guidelines for environmentally sound technologies (ESTs); GEC dispatched its internal committee experts to the Experts Meetings on ESTs in Thailand, Korea, and Osaka organized by IETC; and it co-organized the "International Seminar on ESTs for Energy and Land-based Transportation" with IETC on March 5-6, 2002 in Osaka. To support the enhanced content of the IETC's "maESTro," GEC updated and improved data from its NETT21 Japanese environmental technology database. GEC also deepened and strengthened its support for IETC activities through editorial work for publications such as the "Booklet on Rainwater Harvesting and Utilization" and secretariat work for the "Regional Workshop for Local Governments on MSWM" in the Philippines, both of which were done by GEC collaboration staff. As well, commissioned by the Ministry of the Environment, GEC implemented assistance activities in support of various activities of the UNEP Special Envoy, Ms. Tokiko Kato who appointed to this role by UNEP in October 2000. Ms. Kato visited a variety of sites in Japan and overseas where face difficult environmental problems, in order to encourage people engaging in environmental conservation activities.

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GEC also implemented the followings as Projects to Providing a Platform for Supporting UNEP and Promoting International Cooperation. The first, as International Cooperation Projects to Transfer Environmental Technologies to Developing Countries, GEC launched "Demonstration Project of Environmental Preservation Activities with Community Participation" in Lamphun Municipality, Thailand. This new project aims to encourage local residents to get involved in environmental preservation activities. The second, in the category of Training Projects, saw the implementation by GEC of four JICA training courses which are commissioned by the Japan International Cooperation Agency (JICA), and the launch of "Environmental Management in the Republic of Cuba" as a new country-focused training course. In addition, GEC hosted a "One-Day Seminar" in Cairo, Egypt for former JICA training participants and also hard-launched the Internet-based "GEC Information Board" which fosters exchange among network members around the world. These projects are intended to strengthen the GEC Networking Project. For the third, as a Contribution to Climate Change Mitigation, GEC continued its Feasibility Studies on Climate Change Mitigation Projects for Clean Development Mechanisms (CDM). Additionally, the Environmental Cooperation Project on Energy Use with Chongqing, China, which had begun in FY1999, was completed as GEC project at the end of FY2001 after achieving its initial goals. Now it is transferred to the next stage which the Chinese and Japanese companies to proceed it with their individual efforts. In the forth, under Promotion of Environment Management Systems (EMS), GEC implemented three training courses such as the Environmental Auditor Formal Training Course, as well as through various EMS support and cooperative activities with governmental and the private sectors.

Providing of Office Space and Equipment

GEC provided office space and equipment for UNEP-IETC Osaka

Information Gathering and Dissemination / Educational and Promotional Activities

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

IETC plans to draw up the Guidelines on ESTs, which contributes to clarify whether some technologies are environmentally sound technologies (ESTs). These guidelines will be ready by FY2003. In support of this plan, GEC established the Experts Committee on EST/EVT (Chair: Prof. Toru Morioka, Graduate School of Engineering, Osaka University) in September 2001. The members of this committee consist of experts from universities and private enterprises, and its objective is to summarize various ideas on the concept of EST and EVT (environmental verification of technologies) in Japan. GEC dispatched committee experts and staff to the Experts Meetings on ESTs in Thailand, Korea, and Osaka and the "International Seminar on ESTs for Energy and Land-based Transportation" in Osaka. Approximately 80 participants from international organizations, governments and research bodies around the world took part in the International Seminar in Osaka. At this seminar, GEC supported IETC in a secretariat capacity. GEC also cooperated by conducting networking activities called APREN (the Asia-Pacific Regional EST-ISs Network) which is based on Information Systems of EST (EST-ISs) being promoted by IETC in the Asia-Pacific region.

- **The International Seminar on Environmentally Sound Technologies (ESTs) for Energy and Land-based Transportation**

Dates: March 5-6, 2002

Venue: The International House, Osaka

Co-Organizers: UNEP-IETC,

Ministry of the Environment of Japan and GEC

Number of Participants: Approximately 80



Japan Environmental Technology Information Database Updated and Expanded

GEC's "NETT21: Database on New Environmental Technology Transfer in the 21st Century" was updated and expanded during fiscal year 2001.

- **Updating NETT21 Information**

With the cooperation of the Japan Society of Industrial Machinery Manufacturers (JSIM), GEC has updated information on Advanced Environmental Equipment.

- **Collection of Information on Energy-Saving Technology at Business-Related Buildings**

Since 1998, under the Technical Study Group on Energy-Savings at Business-Related Buildings (Chief: Prof. Minoru Mizuno, Graduate School of Engineering, Osaka University), GEC has been collecting information and looking into ways to use energy-saving technologies in commercial buildings.

The technical information gathered is entered into the NETT21 and is disseminated to developing countries via the Internet. For enhancing the content of NETT21 and providing updated technology information to IETC's maESTro, this study group collected information on energy-saving technologies to repair existing buildings in FY2001.

Support for Dissemination of IETC's Searchable ESTs Directory/Database: "maESTro"

GEC supported activities to disseminate the environmental technology database and accompanying management software for the searchable EST directory called "maESTro," which was developed by IETC.

GEC and IETC Information Service Maintenance Management and Expansion

GEC has been working on sound operational management of information systems of GEC and IETC. As well, GEC launched the "GEC Information Board," a site related to the JICA training project, and updated and improved its content.

Assisting to Publish a Booklet on Rainwater Harvesting and Utilization

GEC collaboration staff assisted IETC by creating drafts for an IETC booklet titled "Rainwater Harvesting and Utilization: An Environmentally Sound Approach for Sustainable Water Management—An Introductory Guide for Decision."



IETC Publicity Activities Using the GEC Newsletter and Website

In order to inform its wider constituencies of IETC activities, the GEC Newsletter (Japanese and English edition) contained articles about IETC projects.

Support to IETC Japanese Website

GEC supported IETC with the Japanese version of its website by proofreading the text and checking technical terms.

Publishing NETT21 Introductory Pamphlet

For more raising awareness of NETT21 database amongst the general public, GEC edited and published a pamphlet outlining the features of the NETT21 database in Japanese, English, and Spanish. An introduction of IETC's maESTro database is also included in this pamphlet.

Seminars and Symposia

Support and Participation in the Regional Workshops for Local Governments on MSWM

GEC collaboration staff participated in the "Regional Workshops for Local Governments on Municipal Solid Waste Management," organized by IETC and held in Clark Field in Angeles City, the Philippines on September 24-27, 2001. GEC collaboration staff also assisted with preparation and running of the workshops. The target audience of this workshop is local governments in Southeast Asia, and there were 48 participants from the Philippines, including 5 mayors, and 18 participants from 7 other countries in Southeast Asia in the workshop.

Participation in the Asia-Pacific Regional Workshop on Urban Environmental Management: EMS Training

On May 21-25, 2001 in Singapore, GEC collaboration staff took part in the Workshop for the Asia-Pacific Region on "Training-the-Trainers" for Development and Application of Environmental Management Systems (EMS) for Urban Management. GEC collaboration staff also assisted to evaluate the effectiveness of the IETC-created "Train-the-Trainers" kit. This workshop was organized by IETC and the Regional Institute of Environmental Technology (RIET).

Participation in Workshop on EMS: Raising Awareness

On September 19, 2001, GEC collaboration staff took part in and collected information at the IETC-hosted "Workshop on Environmental Management Systems: Raising Awareness" in Bangkok.

Other Activities

Project for UNEP Special Envoy's Activities

Commissioned by the Ministry of the Environment, GEC assisted in the activities of Ms. Tokiko Kato, UNEP Special Envoy since October 2000. GEC has been offering various types of support for her activities, which have included touring environmental conservation sites and assisting in NGO activities. Ms. Kato visited Thailand and Indonesia from April 17 to 27, 2000. During her visit, Ms. Kato met and encouraged people engaging in efforts to improve living conditions in the urban slums of Thailand and in activities to protect biodiversity in Indonesia. From August 10 to 19, 2001 in Mongolia, Ms. Kato invited people to a symposium on environmental conservation and gave a concert, encouraging local and foreign NGOs in activities such as afforestation efforts. GEC staff joined Ms. Kato on her Mongolia visit, accompanying her on her observation tours and recording the proceedings. These activities received wide TV and newspaper coverage.



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

Support to the Fourth IETC's International Advisory Board

IETC held its Fourth International Advisory Board in Otsu City in Shiga Prefecture, on November 10, 2001. GEC staff participated in this meeting as a member of the Board.

Participation in "UNEP Day" at Kitakyushu Expo-Festival 2001

GEC supported an IETC lecture and exhibition on "UNEP Day" in the Environment Museum at the Kitakyushu Expo-Festival 2001, held on September 26-28, 2001 in Kitakyushu City, Fukuoka Prefecture. GEC also took the opportunity to promote the various activities of GEC and IETC.

Participation in the International Cooperation Festival 2001

GEC, jointly with IETC and International Lake Environmental Committee (ILEC), participated in exhibitions at the International Cooperation Festival 2001 held at Hibiya Park, Tokyo on October 7-8, 2001.

Participation in the One World Festival

GEC, IETC and ILEC jointly participated in exhibitions at the One World Festival, held at the International House, Osaka, on October 13-14, 2001.

Participation in "EnvironmexAsia 2001/WatermexAsia 2001"

At the "EnvironmexAsia 2001/WatermexAsia 2001 (the 6th Asian International Environmental/Water Management Technology, Equipment & Control Systems Exhibition & Conference)" in Singapore on October 30-November 2, 2001, GEC supported the IETC booth and promoted the various activities of GEC and IETC.

Participation in "GLOBE 2002"

GEC joined in support of the IETC booth and the promotion of GEC and IETC activities at "GLOBE 2002—the 7th Biennial Trade Fair & Conference on Business and the Environment," held in Vancouver, Canada on March 13-15, 2002.

Survey and Research Projects

Promotion of Environmental Management Systems (EMS) and Auditing

GEC was accredited as a training body for environmental auditors in the EMS Registration System for ISO 14001 in October 1997, by the Japan Accreditation Board for Conformity Assessment (JAB). Since then, GEC has organized training courses to promote EMS concepts in Japan.

In December 2001, GEC held the 8th conference for the Committee for Promotion of EMS Training Courses (Chair: Prof. Toru Morioka, Graduate School of Engineering, Osaka University). The conference generated recommendations on carrying out activities for EMS in the future.

● Environmental Auditor Formal Training Courses and Internal Environmental Auditor Training Courses

Completion of a JAB accredited formal training course is one of the requirements to become an official environment auditor. The course has also been accredited by the Institute of Environmental Management and Assessment (IEMA) in the U.K.

In fiscal year 2001, GEC organized a number of courses.

<Environmental Auditor Formal Training Courses>

– 21st course to 23rd course / total number of participants: 23

<Environmental Auditor Refresh Course> photo

– 3rd course / number of participants: 14

<Internal Environmental Auditor Training Courses>

– 17th course to 19th course / total number of participants: 51



● Support for EMS-Related Projects

In order to promote dissemination of EMS concepts, as well as capacity building of human resources for EMS projects, GEC organized an Internal Environmental Auditor Training Courses for the staff of Osaka City Government. In addition, GEC cooperated to the "Training Courses for the Development of EMS Construction" held by the Hyogo Environmental Advancement Association and in conducting ISO 9000-related courses for external training body.

● EMS Implementation in GEC

GEC has been engaged in preparatory study to introduce an ISO 14001-compliant EMS into GEC office. In November 2000, GEC set up an internal project team to implement its EMS. The EMS was completed in June 2001 and has been going into operation since July 2001.

Feasibility Studies on Climate Change Mitigation Projects for CDM and JI

GEC has served as secretariat for a Feasibility Study on Climate Change Mitigation Projects, Clean Development Mechanism (CDM) and Joint Implementation (JI), which commissioned by the Ministry of the Environment of Japan since FY1999 under the Promotional Committee for the CDM project. GEC has undertaken the review and screening of applications for the performance of feasibility studies on possible CDM and JI projects such as biomass use and afforestation (as recommended by local governments and NGOs), including evaluation of project feasibility and overall administration. The purpose of the project is to accumulate knowledge necessary to formulate the international/domestic rules on CDM/JI frameworks as well as to explore projects that effectively contribute to reduction of GHG emission and enhancement of CO₂ sinks.

In FY2001, GEC received 30 proposals for feasibility studies to identify and select CDM and JI projects from various groups and selected seven of these on topics such as biomass use, a still relatively untapped area. Besides monitoring the implementation of the selected projects and evaluating their feasibility, GEC put together a report giving the results of surveys over the past two years. GEC also carried out local surveys in Indonesia and Malaysia to ensure that the projects were proceeding on schedule. As part of these activities, GEC held a CDM Forums focusing on reports and evaluation of the CDM studies implemented in FY2001.

● Overview of Feasibility Studies on Climate Change Mitigation Projects for CDM in FY 2001

- Project development study for reducing methane emissions from anaerobic lagoons treating effluents from palm oil production in Malaysia by EX Corporation
- Feasibility study on biomass recycling project using livestock waste in Ukraine by Japan PFI Association (NPO)
- Practical steps in obtaining carbon credits through a Thai biomass electricity generation project by Tokyo-Mitsubishi Securities Co., Ltd.

- Feasibility study on charcoal production and power generation projects using biomass from industrial afforestation projects in South Sumatra by Kansai Environmental Engineering Center Co., Ltd.
- Evaluation of an afforestation project in Indonesia (East Kalimantan) by Sumitomo Forestry Co., Ltd.
- Pilot project on the use of wind power generation as an alternate energy source in Estonia by Overseas Environmental Cooperation Center, Japan
- South pacific island nation CDM project feasibility study by Pacific Consultants Co., Ltd.

- **Local Surveys of CDM Studies in FY2001**

- Period and site researched: January 7-12, 2002/Indonesia, South Sumatra
Project researched: Feasibility study on charcoal production and power generation projects using biomass from industrial afforestation projects in South Sumatra by Kansai Environmental Engineering Center Co., Ltd.
- Period and site researched: February 3-9, 2002/Malaysia
Project researched: Project development study for reducing methane emissions from anaerobic lagoons treating effluents from palm oil production in Malaysia by EX Corporation

- **CDM Forum 2001 (Kindly refer in details to p.13)**

Date: August 29, 2001
Venue: International House, Osaka
Number of participants: 223

Environmental Cooperation Project on Energy Use with Chongqing, China

Since FY1999, GEC, under the guidance and advice of the Study Group on Energy-Related Issues in Developing Countries (Chair: Dr. Yutaka Suzuki, President of the Himeji Institute of Technology), has been involved in environmental cooperation project for the advanced utilization of natural gas in Chongqing, China. GEC visited Chongqing in July 2001 and narrowed the focus of the project down to four areas: a study on automatization and safety of natural gas supply; a study on burners for natural gas boilers as well as other steps to increase efficiency; a study on popularization of residential gas alarms; and a study on remote metering at model residential apartment buildings. Japanese and Chongqing companies, along with local organizations, decided to conduct joint research in these four areas. GEC also visited Chongqing in December 2001, receiving updates from the Chinese side on the progress of joint research, and gathering various other information. These visits and talks allowed GEC to achieve the goals it initially set for the project. It is now up to the Chinese and Japanese companies to proceed with their individual efforts.

- **Japan Delegation Visits and Holds Conference in Chongqing** photo

Period: July 29-August 1, 2001
Place visited: China (Chongqing)

- **Japan Delegation Visits and Exchanges Views in Chongqing**

Period: December 2-8, 2001
Place visited: Chongqing Science and Technology Committee and other organizations

- **Meeting with the Study Group on Energy-Related Issues in Developing Countries and its Working Group**

Date: July 4, 2001 and March 13, 2002
Venue: Osaka

- **Report on Environmental Joint Project on Energy Utilization in Chongqing, China**

Languages: Japanese
Month of Publication: March 2002



Study on New Energy Systems

Since new energy systems created from technologies such as fuel cells and solar generators result in a markedly reduced impact on the environment, GEC undertook a study to verify the effectiveness and sustainability of these systems over long periods of time, through the operation and management of specific facilities. The fuel cell completed its mission in October 2000 after monitoring a 50,000-hour period of operation, and the results were published on the GEC website as a valuable reference for similar environmentally-friendly systems in the future.

Promotion of Environmental Conservation

Since FY2001, GEC has implemented the "Demonstration Project of Environmental Preservation Activities with Community Participation" in Lamphun Municipality, Thailand. The goal of this project is to improve the water quality of the Kuang River, which runs through Lamphun, train locals to be future environmental activity leaders, and summarize the project in a report so that Lamphun can serve as a model of local environmental action for the rest of the country. In FY2001, GEC drew up an activity program of joint efforts between NGOs with experience in environmental education and expertise in water environment issues and a working group of Thai and Japanese environmental scholars. After preliminary meetings and local surveys during two visits, GEC held a "Workshop on Environmental Protection Activities" for local citizens in January 2002. To disseminate the results of these activities to a greater number of concerned people, GEC published the "Manual for Environmental Preservation Activities Focused on Rivers" and opened a PDF version on its website.

- **Preparatory Meeting and On-Site Research for Workshop**

Period: July and September, 2001

Place visited: Thailand (Lamphun)

- **Workshop on Environmental Protection Activities** photo

Period: January 26-28, 2002

Cooperating Organizations: Lamphun Municipality and Pollution Control Department of MOSTE, Thailand

- **Publication of "Manual for Environmental Preservation Activities Focused on Rivers"**

Languages: Thai, English and Japanese

Month of Publication: March 2002



Information Collection and Dissemination / Educational and Promotional Activities

Management of a Library on Environmental Issues

GEC has opened to the public a library of books on environmental issues, with a special focus on UNEP-related books. Updating the UNEP collection and improving the system of managing the collection have been the main foci of these efforts.

Publication of GEC Newsletter and Annual Report

Issue 20 of the GEC Newsletter was published in June 2001, and Issue 21 was published in March 2002, with the aim of providing more comprehensive content and including special features related to the themes at hand. The English-language GEC Newsletter Issue 10 was published in May 2001, and Issue 11 was published in October 2001, and these reports on GEC activities were distributed widely overseas. In addition, the GEC 2000 Annual Report (Japanese and English edition) was published, bringing together a summary of all the year's activities and events for the benefit of interested domestic and international organizations. GEC also produced a promotional video for use in facility tours and seminars, aimed at furthering understanding of GEC structure and activities.

PR and Open Information on the GEC Website

GEC has continued to update and improve its website with more detailed information on its organization and activities. Since October 2001, GEC has released information such as a list of directors, business plans, reports on activities, and financial situation.

Training Projects

JICA Training Course on Heavy Metal Pollution Control

Commissioned by the Japan International Cooperation Agency (JICA), GEC provided a training course on heavy metal pollution control in cooperation with the Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government. GEC received three participants from three countries to develop experts capable of developing preventive measures to deal with heavy metal pollution. The two-month program included lectures, analysis, practical training and facility tours.

Training period: May 28-July 19, 2001

Nationality of participants: China, Thailand and Brazil

Main course contents:

- Lectures:
 - (a) Introduction to heavy metal pollution
 - (b) Air pollution control measures
 - (c) Water pollution control measures
 - (d) Soil Contamination prevention measures and so on
- Practical training:
 - (a) Sampling and analysis of suspended particles in atmosphere
 - (b) Sampling and analysis of river water
 - (c) Analysis of heavy metals in soil/waste and so on
- Facility tours:
 - (a) Refuse incineration plant
 - (b) Sewage treatment plant/ water purification plant and so on
- Presentation of country report and action plan



JICA Environmental Management Seminar

Commissioned by JICA, GEC provided an environmental management seminar in cooperation with the Environment and Sewerage Bureau, Osaka City Government. GEC received eleven participants from nine countries who will play major roles in environmental management. The one-month program included seminar-style lectures and discussions, as well as facility tours.

Training period: June 11-July 17, 2001

Nationality of participants: Bangladesh, China, Myanmar, Morocco, Seychelles, South Africa, Micronesia, Papua New Guinea and Cuba

Main course contents:

- Lectures/ Discussions/ Tours:
 - (a) Global environmental preservation and sustainable development
 - (b) International initiatives to protect the environment
 - (c) Joint action by governments, industry and citizens
- Presentation of country report and action plan



JICA Training Course on Urban Solid Waste Management

Commissioned by JICA, GEC organized a training course on urban solid waste treatment in cooperation with the Environment Management Bureau, Osaka City Government. GEC received six participants from five countries, and provided lectures on collection, as well as interim treatment and final disposal of urban solid waste, during the three-month program.

Training period: August 20-November 2, 2001

Nationality of participants: China, the Philippines, Thailand, Egypt and Brazil

Main course contents:

- Lectures:
 - (a) Pollution control measures
 - (b) Outline of waste management
 - (c) Processing of domestic/ industrial wastes and so on
- Practical training:
 - (a) Analysis of composition of waste
 - (b) Practice in designing a landfill site
- Facility tours:
 - (a) Recycling plant
 - (b) Final disposal sites, and so on
- Presentation of country report and action plan



JICA Training Course on Air Pollution Control

Commissioned by JICA, GEC provided a training course on air pollution control in cooperation with the Environment and Sewerage Bureau, Osaka City Government. GEC received seven participants from seven countries, and provided lectures on air pollution prevention, as well as prediction and management technologies, during the three-month program.

Training period: September 17-December 7, 2001

Nationality of participants: Bangladesh, Indonesia, Pakistan, the Philippines, Sri Lanka, Egypt and Turkey

Main course contents:

- Lectures:
 - (a) Basic knowledge on air pollution
 - (b) Air pollution control technology
 - (c) Air pollution measurement technology
 - (d) Air pollution prediction technology
- Practical training:
 - (a) Flue gas desulfurization technique
 - (b) Environmental management technology
- Facility tours:
 - (a) Power plant
 - (b) Refuse incineration plant and so on
- Presentation of country report and action plan



Preliminary Survey for New JICA Course in Cuba and Its Establishment

In FY2001, GEC welcomed ten participants to a new session of its "Environmental Management in the Republic of Cuba" course. As a preparation for this course, GEC staff joined the Steering Committee and visited Cuba for a preliminary survey.

● Training period: February 18-March 23, 2002

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 environment-related information with developing countries and enable GEC to continually assess areas of demand for this information, GEC has been offering a network of former JICA training participants since 1998.

In May 2001, the "GEC Information Board," which enables former training participants to exchange opinions with

network members all over the world, went on-line. In addition to efforts to increase the number of network members, GEC cooperated with JICA and Osaka City Government to enable it to offer technical documents such as JICA training texts on the GEC website. GEC held a One-Day Seminar for former training participants in Cairo, Egypt in March 2002. It also continued to keep network members informed and cohesive with another edition of the "GEC Plaza" newsletter.



The Fourth One-Day Seminar

Date: March 20, 2002

Venue: Cairo (Egypt)

Themes: "10 Years of GEC and JICA Training—From Rio to Johannesburg"

"Quality Control of Analysis"

Number of participants: 40

Seminars and Symposia

Holding the Meeting for Environmentally Affluent Society in Osaka Prefecture

On June 6, 2001, GEC, the Osaka Prefectural Government, the Global Environmental Forum-KANSAI, and the Conference on Constructing Affluent Society by Citizens of Osaka Prefecture, jointly held the "Meeting for Environmentally Affluent Society in Osaka Prefecture." The event featured lectures and the presentation of the Osaka Environment Award.

Date: June 6, 2001

Venue: Teijin Hall, Osaka

Organizers: Osaka Prefectural Government, Global Environment Forum-KANSAI,

Conference on Constructing Affluent Society by Citizen of Osaka Prefecture and GEC

Number of participants: Approximately 250

CDM Forum 2001

On August 29, 2001, as part of the "Feasibility Studies on Climate Change Mitigation Projects for Clean Development Mechanisms (CDM)," GEC and the Ministry of the Environment held the "CDM Forum 2001." The details of this event were reported on the GEC website.

Date: August 29, 2001

Venue: International House, Osaka

Organizer: GEC

Co-organizer: Ministry of the Environment of Japan

Supporting organizations: UNEP-IETC, Osaka Prefectural Government, Osaka City Government and the International House, Osaka

Participants: 223



Other Activities**Participation in ECO-ASIA 2001**

GEC staff took part as observers at "ECO-ASIA 2001 (the Congress of Environment Ministers of the Asia Pacific Region)," held on October 13-14, 2001 in Tokyo. The event allowed Environment Ministers from the Asia-Pacific region to exchange opinions freely in order to promote discussion on environmental measures. Topics discussed at "ECO-ASIA 2001" included preparations for, and the establishment of working committees for, the WSSD in South Africa.

Cooperation with the APEC Steering Council of Environmental Technology Exchange Promotion

GEC participated in the discussions of the APEC Virtual Center for Environmental Technology Exchange (APEC-VC), and offered its cooperation.

Participation in the International Environmental Cooperation Forum, West Japan

On March 11, 2002 in Kobe, GEC took part in the "Tenth International Environmental Cooperation Forum, West Japan," hosted by the International EMECS Center. GEC and other participating organizations deepened their relationships by exchanging information about their various international environmental cooperation projects. The contact group for this conference comprises six member-organizations and nine observer-members. Each year the Forum meets to exchange information and to deepen ties among its affiliated organizations. The contact group for this conference was comprised of six working member organizations, as well as nine observer member. Each year the Forum meets to exchange information and deepen ties among its affiliated organizations.

GEC/JCB Card

GEC made efforts to increase the number of holders of the GEC/JCB credit card, which it developed jointly with JCB Co., Ltd. Under this credit card system, a portion of each purchase is automatically contributed to GEC when the card is used for shopping or traveling. In this way, card users can support global environmental conservation activities without making special donations.

**Establishment of the GEC Friend-Membership**

December 2001 marked the start of the "GEC Friend-Membership." Established to mark 2002 as the 10th anniversary of the founding of GEC, the membership acts as a support group by raising awareness about GEC and boosting the effectiveness of GEC activities. The membership also aims to make learning about the environment issues fun through enjoyable information exchanges among members.

Publications

Name of publication	Description	Format/No. of Pages Date of Issue
Manual for Environmental Preservation Activities Focused on Rivers (Thai/English/Japanese)	This manual introduces efforts to combat common environmental problems, concrete methods for surveying river environments, and examples of environmental activities in Lamphun in Thailand.	A4/ 34 pages March 2002
Report on Environmental Joint Project on Energy Utilization in Chongqing, China (Japanese)	In this report, GEC summarizes reference materials covering aspects such as details of past activities, progress of present efforts, and future outlooks and tasks.	A4/ 246 pages March 2002

Periodicals

Name of publication	Description	Format/No. of Pages Date of Issue
GEC NEWSLETTER No.20 (Japanese edition)	An introduction to the activities of GEC	A4/ 8 pages June 2001
GEC NEWSLETTER No.21 (Japanese edition)	An introduction to the activities of GEC	A4/ 8 pages March 2002
GEC Newsletter No.10 (English edition)	An introduction to the activities of GEC	A4/ 8 pages May 2001
GEC Newsletter No.11 (English edition)	An introduction to the activities of GEC	A4/ 8 pages October 2001
Global Environment Centre Foundation Annual Report (Japanese edition)	Report on projects of GEC for fiscal year 2000	A4/ 24 pages August 2001
Global Environment Centre Foundation Annual Report (English edition)	Report on projects of GEC for fiscal year 2000	A4/ 20 pages November 2001



Project Programs for Fiscal Year 2002

While looking back on the accomplishments of the past decade, GEC aims to contribute to sustainable development by making the 21st century the "Century of the Environment." Achieving this will require even more aggressive contributions to protecting the global environment, particularly that of the developing countries. This is why, through efforts such as the Johannesburg Summit in 2002 and the spread of information technology, GEC will continue to provide the utmost support to UNEP-IETC and take part in international cooperation activities that contribute to urban environmental conservation.

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Under Projects Supporting UNEP-IETC, GEC will be continuing drawing up the EST Guidelines, which help transfer the use of ESTs to developing countries. GEC will also collaborate with IETC projects for sustainable water use and management in cities. Furthermore, GEC will continue to support the various activities of UNEP Special Envoy, Ms. Tokiko Kato.

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Under Projects to Providing a Platform for Supporting UNEP and Promoting International Cooperation, GEC will continue with its program in Lamphun, Thailand to encourage residents to get involved in environmental preservation activities as part of GEC's efforts to transfer environmental technologies to developing countries. Commissioned by JICA, GEC is again implementing five training courses, this fiscal year with more advanced content. In particular, in the "Environmental Policy & Environmental Management Systems" course (formerly called the "Environmental Management Seminar"), GEC is aiming for the more effective transfer of environmental management systems (EMS) to developing countries by adding more advanced lectures on this subject. Regarding the "GEC Networking Project for Former Training Participants," GEC has opened a JICA training section on its website, where freely available technical documents and other beneficial features will help strengthen the network. To contribute to the prevention of global warming, GEC is continuing its "Feasibility Studies on Climate Change Mitigation Projects for Clean Development Mechanisms (CDM)." In the area of environmental management systems (EMS), GEC will continue to carry out various training activities including the Environmental Auditor Formal Training Course, as well as boost its overall EMS training programs through efforts such as sending instructors to give courses at various organizations.

**Projects
Supporting
UNEP-IETC**

IETC Support

- (1) Providing of office space and equipment
- (2) Promotion and transfer of information on environmentally sound technologies (ESTs)
 - EST/EVT Project
 - Japanese environmental technology information database updated and expanded
 - GEC and IETC information service maintenance management and expansion
- (3) Cooperation to IETC projects
 - Sustainable Water Use and Management in Cities
- (4) UNEP Special Envoy project
GEC will provide support for environment-related activities of the UNEP Special Envoy, both domestically and overseas.*
*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) Supporting survey on water quality environmental management in Halong Bay in Vietnam
Using experience gained on a previous project on environmental monitoring technology transfer in Vietnam, GEC will support projects including working with the Vietnamese government to make a plan for measuring water quality.
- (2) Environmental preservation activities with community participation
To facilitate the transfer of expertise on spreading environmental activities suitable to developing countries, GEC is continuing to carry out model projects in Thailand for getting local residents involved in environmental preservation activities.
- (3) Training courses commissioned by the Japan International Cooperation Agency (JICA)
 - 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
- (4) GEC networking project for the former training participants
Through needs assessments, holding local seminars, and engaging in information exchange via the Internet-based message board, GEC will follow-up on previous training courses and strengthen its network.

Contribution to Climate Change Mitigation in Japan and Abroad

- (1) Feasibility study on climate change mitigation projects for CDM and JI
GEC will continue to conduct the CDM project study as in fiscal year 2001.
- (2) Proof study on new energy-saving systems
GEC will collect data on operations and maintenance of solar generators, and similar energy-saving systems.

Promotion of Environmental Management Systems (EMS)

- (1) EMS training courses
 - Environmental Auditor Formal Training Courses, Environmental Auditor Refresh Courses and Internal Environmental Auditor Training Courses
 - EMS seminars for local governments
- (2) Expanding and enhancing of EMS lectures in JICA training courses
- (3) EMS (ISO 14001) implementation in GEC

Information Gathering and Dissemination

- (1) Projects for GEC 10th anniversary
GEC will hold symposia and publish special report to mark 2002 as its 10th anniversary.
- (2) Seminars and symposia
GEC will organize a wide variety of seminars and symposia in collaboration with industry organizations, NGOs and other entities.
- (3) Public awareness activities
 - GEC will provide environmental information via the Internet
 - Publication of the GEC Newsletter and GEC Annual Report (Japanese and English edition)
- (4) Operation and enhancement of the GEC library

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
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	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 October 2002)	

Programme Activities (for 2001-2002)

- 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:
 - (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:
 - (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) Environmental Verification of Technologies (EVT)

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	YAMAMOTO, Masakatsu	Chairperson, Environmental Problem Committee, Osaka Industrial Association

(As of July 1, 2002, honorific omitted; names in alphabetical order [Surname])

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

- Database on:
- 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

Total: 1,449 data listings

(as of July 2002, complete data available in English via the GEC Website)

Number of visitors to UNEP facilities: 274 (April 1, 2001 - March 31, 2002)

Collections in GEC library: 4,870 (including UNEP related publications 208)

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