

Global Environment Centre Foundation

Annual Report 2019



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Foreword

The Global Environment Centre Foundation (GEC) is engaged in various projects to help conserve the global environment through technical cooperation for developing countries and contributing to climate change mitigation. In particular, we are involved in a broad range of activities in support of the Sustainable Development Goals (SDGs), adopted and launched by the UN General Assembly in September 2015, while aiming to help reduce greenhouse gases under the Paris Agreement.

In FY2019, our activities to fulfil GEC's founding mission of supporting the United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC) included organising a UNEP international symposium in coordination with partners, such as the City of Osaka. The event has had a huge impact on increasing our presence, sending a message to the upcoming G20 summit on behalf of UNEP. Meanwhile, IETC launched UNEP Sustainability Action, a new programme for collaboration with a wide range of stakeholders to achieve the SDGs, to be scaled up both in Japan and overseas. GEC is committed to actively cooperating with and supporting UNEP-IETC in all of these initiatives going forward.

We also participated in other international cooperation projects to facilitate the future business development of the private sector. Thus, as part of the Project to Create and Support Core Local Businesses (commissioned by the Kansai Bureau of Economy, Trade and Industry), we have promoted overseas deployment of advanced Japanese environmental and energy-saving technologies, specifically in China and ASEAN, leveraging the Kansai-Asia Environmental and Energy-Saving Business Promotion Forum (Team E-Kansai) as a platform. In addition, we implemented projects under the Programme for the Promotion of Water Environment Business (commissioned by Shiga Prefecture), including improvement of water quality in Ha Long Bay, Vietnam.

With regard to climate action, the 25th Conference of the Parties to the UN Framework Convention on Climate Change (COP 25) held in Madrid in December 2019 adopted an outcome document calling for each country to raise its current greenhouse gas reduction target in 2020 with the highest possible ambition.

In an effort to reinforce the Joint Crediting Mechanism (JCM) promoted by the Japanese government in coordination with partner countries, GEC is engaged in the operation and management of the Financing Programme for JCM Model Projects to provide financial support for projects to combat global warming in the partner countries.

In FY2019, we were commissioned for the first time to provide support for a set of procedures ranging from the registration of a project with JCM to the issuance of the credit, as well as the operation and management of the Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation, focusing on collaboration with partner countries and the packaging of multiple technologies. By actively implementing various programmes on behalf of the Ministry of the Environment, GEC supports initiatives to combat global warming overseas.

In addition, we have been enhancing international cooperation for human resource development such as leveraging our network with local governments and businesses in the Kansai region implemented through the Japan International Cooperation Agency (JICA) Group Training Project and promoting the networking of experts from the alumni of JICA training courses.

Going forward, GEC remains committed to closer coordination and cooperation with relevant institutions for further contribution to help achieve the SDGs and climate action under the Paris Agreement, and taking proactive efforts leveraging our expertise and experience, as well as our national and international networks.

Lastly, the current COVID-19 pandemic is set to have a huge impact and lasting effect on our lifestyles. We would greatly appreciate your continued understanding and support for our activities as we continue working hard to conserve the sustainable environment of our planet as the source of all life.



July 2020

SUZUKI, Naoshi
President
Global Environment Centre Foundation

Technical Cooperation for Developing Countries



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Support for the Activities by the United Nations Environment Programme International Environmental Technology Centre (IETC) to Promote Environmentally-Sound Technologies

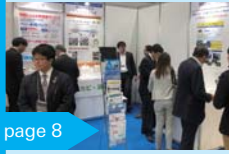
Building on GEC's rich experience and expertise, as well as its broad networks both in Japan and overseas, we are engaged in the operation of international meetings organised by IETC (such as workshops, symposia, seminars and visits).



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Project to Create and Support Core Local Businesses

Through the Kansai-Asia Environmental and Energy-Saving Business Promotion Forum (Team E-Kansai), we are enhancing our networks with public and private institutions in China and the ASEAN area and helping to solve local environmental issues, aiming to disseminate the environmental and energy-saving technologies of Forum companies on a commercial basis.



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Promotion of Water Environment Business

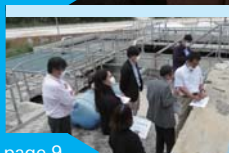
We are implementing a programme to help member companies and organisations of the Shiga Water Environment Business Promotion Forum develop projects and businesses overseas, including through the organisation of breakout sessions, research to identify water environment issues in Asia, regional seminars and business matching events, and support for the exhibition participation.



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Support for Tripartite Environment Ministers Meeting among China, Japan and Korea (TEMM)

Our programme for TEMM, held annually since 1999, includes the provision of operational support for the ministerial meeting and related side events, as well as support for joint presentations among the three countries on environmental technologies.



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Multiple Compartments Biological Treatment Project with Fiber Carrier to Improve Water Quality in Ha Long Bay, Vietnam

Members of industry-academia-government collaboration are conducting research on the feasibility of multiple compartments biological treatment and local applicability of vegetation purification to improve water quality of Ha Long Bay (World Heritage Site).

Addressing Climate Change Mitigation



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Financing Programme for JCM Model Projects

As an executing agency for assistance projects on behalf of the Ministry of the Environment, we provide financial support for the implementation of projects to combat global warming in partner countries, to be registered as JCM projects.



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Various Activities to Promote the Joint Crediting Mechanism (JCM)

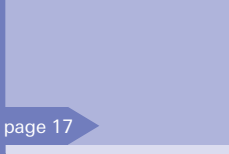
We promote understanding of projects including for the financing of JCM both in Japan and overseas, facilitate the smooth operation of, and participation in, the JCM project assistance programme, and act as secretariat for the REDD+ project assistance programme.



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Support on CTCN and GCF Project Development

We worked to identify and help develop potential projects with the aim of promoting the transfer and dissemination of Japanese low- and/or zero-carbon technologies through the Climate Technology Centre and Network (CTCN) and the Green Climate Fund (GCF), thereby facilitating the launch of their overseas operations.



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Support on Project Evaluation for Japan Fund for JCM (JFJCM)

We help the Ministry of the Environment review applications for projects to be financed by the Japan Fund for JCM, established by the Ministry under the Asian Development Bank to promote the dissemination of excellent low-carbon technologies to developing countries in Asia.



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Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation

As part of the programme financed by the Ministry of Environment, we provided support for projects designed to create innovations benefiting both Japan and developing countries (co-innovations) as they collaborate in renovating and disseminating quality environmental technologies and products.

International Training



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Japan International Cooperation Agency (JICA) Group Training Project

Commissioned by JICA, we conduct training courses in Japan for engineers and administrators from developing countries with the objective of improving their capacity to solve and manage local environmental issues.



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GEC Networking Project for Former Training Course Participants

We have been implementing this networking project since FY1998 to follow up on former JICA trainees and identify exact needs in developing countries. We are seeking to enhance the network thus developed by operating an exchange site and organising follow-up seminars.

SDGs

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



Support for the Activities by the United Nations Environment Programme International Environmental Technology Centre (IETC) to Promote Environmentally-Sound Technologies



Group photo of participants in the Symposium

The Global Environmental Centre Foundation (GEC) conducted activities under the FY2019 Project for Collaboration with the UNEP-IETC, commissioned by the City of Osaka. We also implemented projects commissioned by UNEP-IETC, including those related to the Programme for Holistic Waste Management at the National/Municipal Level and the Mercury Waste Management programme.

Support for Project for Collaboration with IETC (Commissioned by the City of Osaka)

(1) Support for Organisation of Technology Solutions for Holistic Waste Management: A Global Dialogue with the Private Sector

On 20–23 May 2019, UNEP-IETC organised the “Technology Solutions for Holistic Waste Management: A Global Dialogue with the Private Sector” with the City of Osaka and GEC. With the objective of facilitating the “transfer of environmentally sound technologies suited to solving waste management issues in developing countries,” one of IETC’s mandates, three sessions were held with the themes of: strategy for private companies to create business value with technology; the role of international organisations in technology transfer; and public-private partnerships and partnerships with developing countries, including international organisations. GEF provided support for the management of those sessions.

Official name:	Technology Solutions for Holistic Waste Management: A Global Dialogue with the Private Sector
Date:	20–23 May 2019
Organiser:	United Nations Environment Programme (UNEP)
Co-organisers:	City of Osaka, GEC
Sponsors:	Ministry of Foreign Affairs, Ministry of Environment
Support:	Osaka Convention & Tourism Bureau; Osaka Water & Environment Solutions
Languages:	English, Japanese



Panel discussion

- 11th Meeting of the International Advisory Board of IETC (20 May at Tsuruminomori Geihinkan, Osaka)
- Technology Solutions for Holistic Waste Management: A Global Dialogue with the Private Sector (21–23 May at Tsuruminomori Geihinkan, Hilton Osaka, etc.)
- UNEP Symposium on Plastic Waste Problems: Reducing Ocean Plastic Waste (22 May at Hilton Osaka)

Over 250 participants from the UN and other international organisations, central and local governments, private companies and civil society who gathered at this open symposium shared information and actively discussed the current issues, challenges and actions regarding plastic waste in Japan and overseas, as well as measures for preventing marine plastic pollution. The Symposium was a resounding success, sending a message on behalf of UNEP to the G20 summit in Osaka slated for June.

(2) Learning Circularity from Penang, Malaysia – Knowledge-share from Penang’s Experiences and Side Event to Seventh Asia Pacific Urban Forum (APUF7) (Penang, Malaysia)

GEC organised a training session on a wide range of good practices in waste management implemented in Penang and hosted a Training Session to Learn about the Circular Economy as a side event to APUF7, a forum jointly organised by UNESCAP UN Habitat and the Penang State Government. GEC was involved in the planning and management of the training sessions.

A total of 61 trainees participated in the three-day training sessions held in Penang, including nine municipal officers in charge of waste management from Vietnam, Thailand and Indonesia. The project helped reinforce the presence of UNEP, the City of Osaka and GEC and further enhance collaboration with partner municipalities.



APUF7 plenary meeting



APUF7 side event



Group photo of trainees



Scene from a training session

Training session name:	Learning Circularity from Penang, Malaysia – Knowledge-share from Penang’s Experiences
Meeting name:	APUF7 Side Event – Training Session to Learn about the Circular Economy
Date:	14–16 October 2019
Organisers:	UNEP, City of Osaka, GEC, Penang State Government, Penang Green Council
Venue:	Cititel Penang (14 October), Setia SPICE Convention Centre (15 October), etc.
Language:	English

(3) Survey on Environmental Needs in Developing Countries

Continuing from the previous year, we conducted surveys on environmental needs in Mumbai, India (Maharashtra Province). Our activities included participating in local events and meetings to identify emerging needs for environmental support and building partnerships with local government agencies and private businesses.

• First survey in India: 22–24 July

We conducted interviews on possible city-to-city cooperation projects between the local government and the City of Osaka. Supported by strong interest from both the municipal government of Mumbai and the provincial government of Maharashtra, we reached an agreement on cooperation for developing concrete projects going forward.

• Second survey in India: 18–25 November

Along with representatives from the Environment and Port Departments, City of Osaka, and Osaka Port Corporation, we participated in the annual India Supply Chain Conference to present relevant initiatives and technologies of each party, thus helping to extend our local network. We also succeeded in obtaining a basic agreement on signing a memorandum of understanding between Environment Bureau, Osaka City and Pollution Control Board, Maharashtra Government an environmental partnership project.



Meeting at the Solid Waste Department, Mumbai



India Supply Chain Conference



Ceremonial photo at the Maharashtra Pollution Control Board



First Stakeholders Meeting



Second Stakeholders Meeting



IETC booth at Highschool Live & Clean Project in Tsurumi Ryokuchi



Clean-up activity at Yodogawa Kasen Park



Hankyu Railway SDGs Train



Global Dialogue meeting



Group photo of technical experts on mercury



Group photo of workshop participants

(4) Organisation and Management of SDG Stakeholders Meeting

In a bid to promote the initiatives undertaken by various stakeholders working on the SDGs through interaction, collaboration and national/international communication, we organised two Stakeholders Meetings with the participation of UNEP-IETC, Japanese national and local governments, NGOs and cooperating organisations.

Participants in the meeting exchanged views on the synergies of stakeholder collaboration and the possibility of extension overseas, building on cases of plastic waste upcycling by citizens and businesses selected from among applicants, as well as Plastic Smart initiatives.

First Stakeholders Meeting

Date: Wednesday, 30 October
 Venue: Training Room, 2F UNEP-IETC Office
 Attendees: UNEP-IETC, JICA Kansai, Naniwa Eco-Conference, Ecofriend Co. Ltd., Daiei Kankyo Co. Ltd., Osaka Prefecture, City of Osaka, GEC

Second Stakeholders Meeting

Date: Monday, 2 March
 Venue: Training Room, 2F UNEP-IETC Office
 Attendees: UNEP-IETC, Ministry of Environment, JICA Kansai, Secretariat of Kansai SDGs Platform, Naniwa Eco-Conference, Ecofriend Co. Ltd., Daiei Kankyo Co. Ltd., FP Corporation, Kaneka Corporation, Osaka Prefecture, City of Osaka, GEC

(5) PR/Outreach Activities for IETC

We participated in environmental events to present IETC's projects and provide relevant information. We also engaged in the following activities to support public relations and promote project outreach.

Participation in environmental events overseas

- Seventh Asia Pacific Urban Forum (14–16 November in Penang, Malaysia)

Participation in community-based environmental activities in Osaka

- High School Live & Clean Project in Tsurumi Ryokuchi (12 May at Osaka Hanahaku Memorial Park)
- SDGs Train: Clean-up Activity for the Future We Want (24 August at Yodogawa Kasen Park)
- 10th Garage Sale in Higashiyodogawa Ward (27 October at Tohoku Environment Centre)
- Eco Ennichi (3 October at Osaka Hanahaku Memorial Park)
- 14th Waste Reduction Festival in Tsurumi (10 November at Osaka Hanahaku Memorial Park)
- Garage Sale in Hirano for Intergenerational Exchange (14 November at Hirano Ward Citizen Centre)

Other activities

- Biwako Environmental Business Exhibition (16–18 October at Nagahama Institute of Bio-Science and Technology Dome)
- One World Festival (1–2 February at Osaka Kita Ward Citizen Centre)
- Japanese translation of the IETC website
- Creation of the IETC Annual Report in Japanese

Support for UNEP-IETC (UNEP-commissioned Project)

We supported the management of meetings for the following two UNEP programmes on which IETC focused.

(1) Programme for Holistic Waste Management at the National/Municipal Level (implemented in connection with the programme commissioned by the City of Osaka mentioned above)

- 11th Meeting of the International Advisory Board of IETC (20 May at Tsuruminomori Geihinkan, Osaka)
- Technology Solutions for Holistic Waste Management: A Global Dialogue with the Private Sector (21–23 May at Tsuruminomori Geihinkan, Hilton Osaka, etc.)
- UNEP Symposium on Plastic Waste Problems: Reducing Ocean Plastic Waste (22 May at Hilton Osaka)

(2) Mercury Waste Management Programme

- Meeting of the Group of Technical Experts on Waste Thresholds to be Established Pursuant to Paragraph 2 of Article 11 Minamata Convention on Mercury (27–29 May at Tsuruminomori Geihinkan, Osaka) with 60 participants
- Workshop on Synergies in Mercury Waste Management (30–31 May at the same venue) with 44 participants

Project to Create and Support Core Local Businesses

GEC has been serving as secretariat to “Kansai Asia Environmental and Energy Saving Business Promotion Forum” (Team E-Kansai) since May 2013. Building on Team E-Kansai initiatives thus far, METI Kansai commissioned us to undertake the Project to Create and Support Local Core Businesses in FY2019.

Based on Team E-Kansai, the project builds a network with government agencies and local business associations in Asian countries to support market development and project creation of companies in the fields of environment and energy conservation.

(1) Activities in key areas

For this project, we designated China (Guangdong and Liaoning Provinces), Vietnam, Indonesia and Thailand as key areas, and developed frameworks for cooperation with local business associations and government agencies with the support of coordinators. We have also supported the creation of new projects and the development of sales overseas through various events such as seminars, networking events and business matching.

List of activities in FY2019

Japan	1	Visit of delegations of Nanhai District, Foshan City, Guangdong Province	22 July 2019	Osaka City
	2	The 1st Seminar / Exchange Meeting for Team E-Kansai Member companies	11 October 2019	Osaka City
	3	Participation in the 12th Kawasaki International Eco-Tech Fair and the Asia-Pacific Eco-Business Forum	12–13 November 2019	Kawasaki City
	4	China Guangdong Province Environmental and Energy Saving Business Exchange / Business Meeting	3 December 2019	Osaka City
	5	Visit of the Science and Technology Agency of Guangdong Province	3 December 2019	Osaka City
	6	Visit to China Guangdong Science and Technology Cooperation Research Promotion Centre	6,8,9 December 2019	Osaka City, Tokyo
	7	China Guangdong Science and Technology Cooperation Research Promotion Centre and Team E-Kansai MOU exchange	8 December 2019	Tokyo
	8	Seminar for Water Business Collaboration in Asia, co-organised with Osaka Chamber of Commerce and Industry	16 December 2019	Osaka City
	9	Visit of Longjiang Environmental Protection Group in Longjiang Province	17–18 December 2019	Osaka City
	10	The 2nd Seminar / Exchange Meeting for Team E-Kansai Member companies	23 January 2020	Osaka City
China	11	China Guangdong Science and Technology Agency and METI Kansai MOU exchange	24 July 2019	Foshan, Guangdong Province
	12	Participation in FBC Guangdong 2019 (Manufacturers’ Business Negotiation) in Nanhai	24–25 July 2019	Foshan, Guangdong Province
	13	Consultation for FY2019 on Japan-China joint projects, etc., in collaboration with the Science and Technology Agency, Guangdong Province, China	24 July 2019	Guangzhou, Guangdong Province
Vietnam	14	Pre-adjustment and needs survey of technology seminar in collaboration with the Vietnam Textile and Apparel Association (VITAS)	20–21 November 2019	Ho Chi Minh
Indonesia	15	Pre-adjustment of Water Infrastructure Technology Exchange Meeting	16–17 January 2020	Jakarta/Bekasi
	16	Water Infrastructure Technology Exchange Meeting in Bekasi	11 February 2020	Bekasi

(2) Information dissemination through the Team E-Kansai platform

• Provision of information through e-mail magazines

We sent a total of 41 e-mail magazines on a biweekly basis to provide information on specific Team E-Kansai projects (dispatch of missions, organization of seminars, etc.), surveys and needs related to the environment and energy efficiency in Asia, and applications for projects to



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be supported by public institutions.

- **Provision of information to full members through newsletters**

We sent a total of 11 newsletters to our full members to provide information on needs supplied by local coordinators and on upcoming events. We also posted a total of 9 reports from local coordinators, available to full members only.

Promotion of Water Environment Business

The Shiga Prefectural Government established the “Shiga Water Environment Business Promotion Forum (Team Water Shiga)” in March 2013 to facilitate development of the water environment business by taking advantage of the cumulative results of water environment-related industries and research institutions as well as activities to conserve the water environment of Lake Biwa. The Prefectural Government not only provides information about recent trends in the water environment business, activities of pioneering companies, and various support measures, but also operates Team Water Shiga as a forum for matching and team building to set up actual business projects, joint development, and so on.

Commissioned to conduct the “Survey & Coordination for Water Environment Business Promotion” by the Shiga Prefectural Government, activities of the project included: (1) Support for hosting/offering seminars and section meetings in Shiga prefecture, (2) Support for participating the business exhibition in Japan, and (3) Study on identifying technological needs and issues related to the water environment in the Asian region.

(1) Support for seminar and session held in Shiga Prefecture

The Shiga Water Environment Business Seminars was organised, at the Nagahama Institute of Bio-Science and Technology in October 2019, to introduce updates on actual cases of business operation in Asia, financial support for the water environment business, and water environment needs in Asia identified through investigation.

Three closed Asia Regional Sessions for related Forum members were also held in October 2019, December 2019 and January 2020 to discuss about developing the project or the components of the domestic seminar.

(2) Support for participating the business exhibition in Japan

For the purpose of securing new Forum members and contributing sales promotion of members through introducing Forum activities, GEC supported the participation and operation of the booth at the domestic exhibitions related to water environment such as Biwako Environmental Business Exhibition 2019 and InterAqua2020. During these exhibitions, activities of Forum such as the JICA project at Katt Ba Island in Vietnam were introduced.

(3) Survey on identifying water environment-related needs and related issues in the Asian region

In consideration of the needs from members of Team Water Shiga, surveys were conducted in Vietnam as priority countries.

Through site visits and interviews with organisations such as local administrative agencies and business groups related to the water environment and Japan-related organisations, technological needs or issues concerning the water environment were identified. Details regarding the investigation are outlined below.



Shiga Water Environment Business Seminars



Survey in Vietnam

Period:	December 2019
Country/region:	Vietnam (Quang Ninh)
Main destinations:	Department of Natural Resources and Environment (DONRE) in Quang Ninh, Vietnam Association of Seafood Exporters and Producers (VASEP), JICA Viet Nam Office, Quang Ninh Aquatic Products Export Company
Objective:	Research on technological needs, problems, emission control, and policy trends etc. related to water environment

Support for Tripartite Environment Ministers Meeting among China, Japan and Korea (TEMM) (commissioned by OECC)

The Tripartite Environment Ministers Meeting among China, Japan and Korea (TEMM) has been held annually since 1999, culminating in the implementation of cooperation projects under the Tripartite Joint Action Plan (TJAP, 2015–2019). As part of the project commissioned by the Overseas Environmental Cooperation Centre, Japan (OECC), GEC provided supports and assistances for the ministerial meeting (21st TEMM, held on 23–24 November 2019 in Kitakyushu, Japan) and its working-level meeting. TEMM21, chaired by Mr. Koizumi, Japanese Minister of the Environment, discussed about the next TJAP (2020–2024) to be adopted in TEMM22, and agreed the priority areas to be included in the next TJAP.

In addition, GEC made support activities for the establishment and the operationalisation of a web-platform of the Tripartite Cooperation Network for Environmental Pollution Prevention and Control Technologies, one of the cooperation projects under TJAP, and for the preparation and implementation of the third China-Japan-Korea Environmental Industry and Technology Joint Exhibition and Forum at EcoPro 2019, held on 5–7 December 2019 at Tokyo Big Sight, Japan. GEC worked for the preparation for the third Joint Exhibition and Forum hosted by the Ministry of the Environment, Japan (MOEJ), including coordination among EcoPro organizers and exhibitors from three countries.



Environment Ministers of Korea, Japan and China (Centre: Mr. Koizumi of Japanese Minister)

Multiple Compartments Biological Treatment Project with Fiber Carrier to Improve Water Quality in Ha Long Bay, Vietnam

Ha Long Bay, which is registered as a World Heritage Site, is surrounded by the coastal area of Quang Ninh Province and Cat Ba Island. It is a closed sea area with large and small 3,000 islands and strangely shaped rocks.

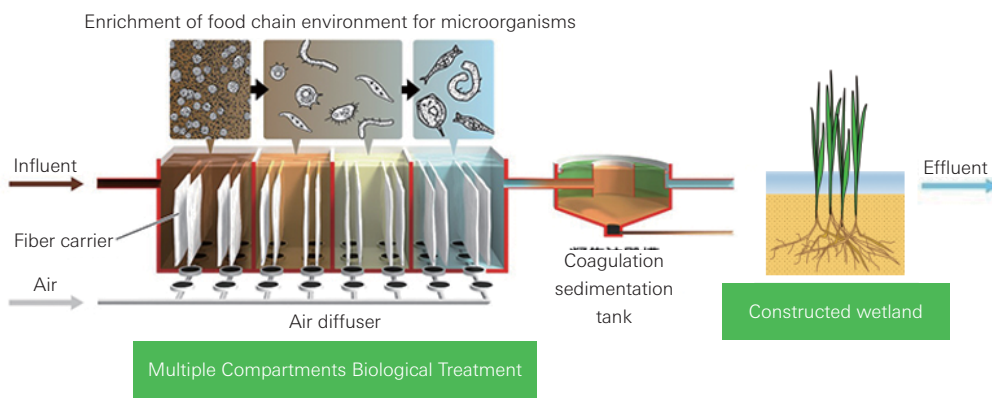
Wastewater treatment facilities of seafood processing industries are not perfect, therefore water quality in Ha Long Bay is in bad condition. Local governments concerns to mitigate water environmental impact by industrial sectors.

Feasibility study of water treatment business by bio film method with fiber carrier and vegetation was implemented in FY 2019. Research for current condition on wastewater from seafood processing industries and planning for verification test were conducted through the study.



Survey on wastewater treatment plant of seafood processing factory in Quang Ninh Province

- Implementation systems:
- Japan side
 - Global Environment Centre Foundation (GEC), TEIJIN FRONTIER CO., LTD., Ritsumeikan University, Shiga Prefectural Government
 - Vietnam side
 - Institute of Environmental Technology, Vietnam Academy of Science and Technology (VAST-IET), Quang Ninh Provincial Government.



Technology Transfer for Developing Countries through the Joint Crediting Mechanism



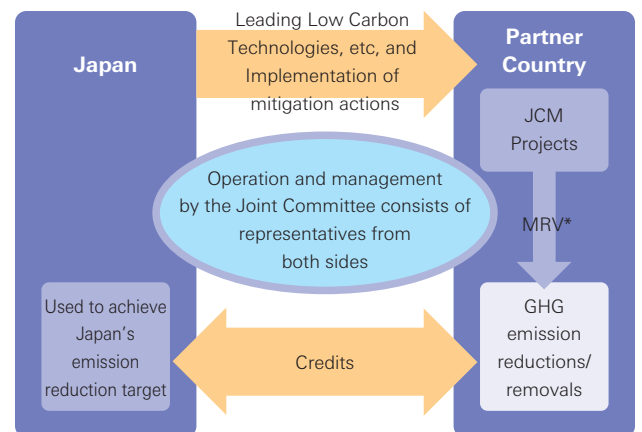
Introduction of 15MW Solar Power System near New Airport

What is the Joint Crediting Mechanism (JCM)?

The JCM is a mechanism based on bilateral agreements between Japan and developing countries. It facilitates the diffusion of leading low-carbon or decarbonizing technologies, products, systems, services, and infrastructure as well as the implementation of mitigation actions, and contributes to sustainable development in developing countries. It appropriately evaluates contributions to GHG emission reductions or removals from Japan in a quantitative manner and uses them to achieve Japan's emission reduction target.

The JCM contributes to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reduction or removals. To date, the following 17 countries have signed bilateral documents for introducing the JCM: Mongolia, Bangladesh, Ethiopia, Kenya, the Maldives, Vietnam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and the Philippines.

JCM scheme between Japan and partner country



*measurement, reporting and verification

Programmes and Activities Supported by the Ministry of the Environment, Japan

The Ministry of the Environment, Japan (MOEJ) provides financial support for several programmes and activities including Financing Programmes for JCM Model Projects to facilitate the development of JCM projects. GEC is commissioned by the MOEJ to serve as an implementing organisation or secretariat to manage these programmes and activities.

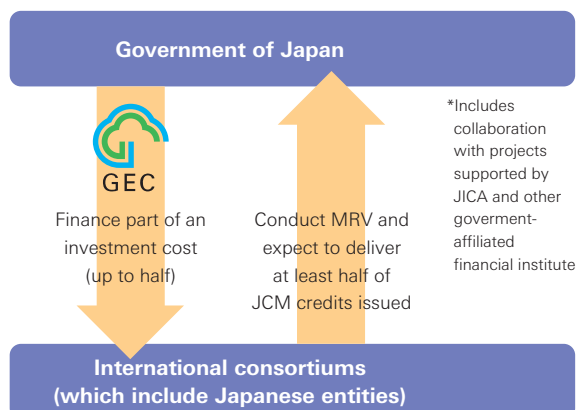
Financing Programme for JCM Model Projects

GEC has been supporting the MOEJ to implement the Financing Programme for JCM Model Projects. Since 2014, officially assigned by the MOEJ, GEC has been an implementing organisation of the Financing Programme for JCM Model Projects.

The purpose of this programme is to financially support the implementation of projects that reduce GHG emissions by utilising leading low-carbon or decarbonizing technologies in developing countries, and in return, to seek to acquire JCM credits toward achieving Japan's GHG emission reduction target.

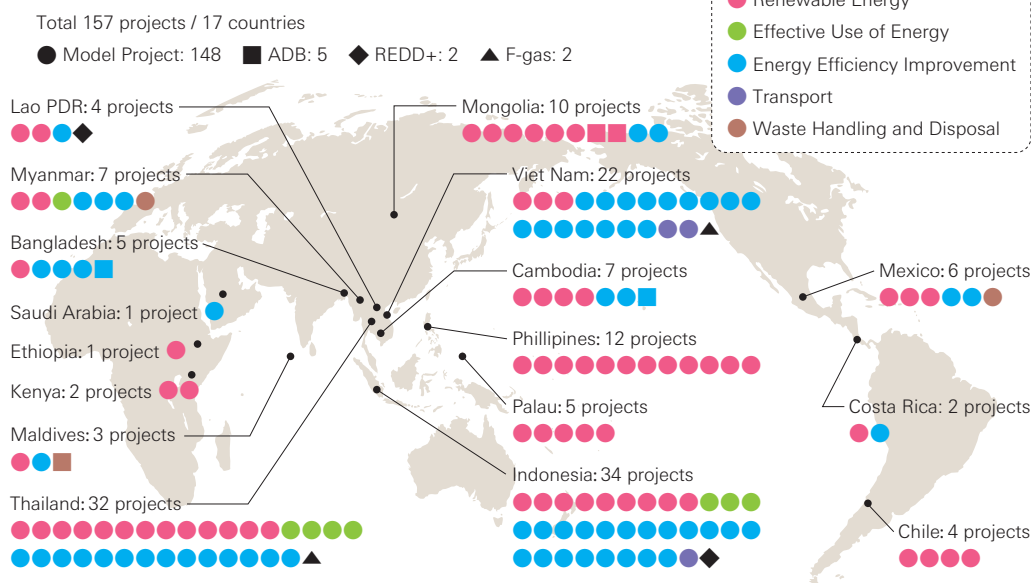
Total number of JCM Model Projects leached 148, including those selected in FY2019. Total expected amount of the reduction is 1,208,942 [tCO₂]. Of these, 99 projects have started operations, contributing to the reduction of CO₂ emissions.

JCM Model Projects by MOE



- Scope of the financing : facilities, equipment, vehicles, etc. which reduce CO₂ from fossil fuel combustion as well as construction cost for installing those facilities, etc.
- Eligible Projects : starting installation after the adoption of the financing and finishing installation within three years.

JCM Financing Programme by MOEJ (FY2013~2019)



Each year GEC calls for, reviews and selects project proposals for the financing programme, and manages the selected projects. In FY2019, GEC held open calls for proposals from April through November and selected 26 projects in total in consultation with the MOEJ (see Table below).

JCM Model Projects Selected in FY2019

No.	Partner Country	Representative Participant	Title
1	Mongolia	Saisan Co., Ltd.	Fuel Conversion by Introduction of LPG Boilers to Beverage Factory
2	Vietnam	Hitachi Zosen Corporation	Waste to Energy project at Xuan Son Waste Treatment Complex, Hanoi, Vietnam (Termination of Project)
3	Vietnam	Yokohama Water Co., Ltd	Vietnam Energy Saving by Introduction of High Efficiency Water Pumps in Hue City (Withdrawal of application)
4	Palau	Sharp Energy Solutions Corporation	Introduction of 1MW Solar Power System on Supermarket Rooftop
5	Mexico	Sharp Energy Solutions Corporation	30MW Solar Power Project in La Paz city
6	Philippines	Voith Fuji Hydro K.K.	19 MW Mini Hydro Power Plant Project in Isabela Province

For Further information on JCM:
JCM Official Website
<https://www.jcm.go.jp/>
GEC JCM Website
<http://gec.jp/jcm/>

No.	Partner Country	Representative Participant	Title
7	Philippines	Tokyo Century Corporation	18MW Solar Power Project in Collaboration with Power-supply Company
8	Vietnam	DAIICHI JITSUGYO CO., LTD.	Introduction of Biomass Boiler to Chemical Factory
9	Thailand	Toyota Motor Corporation	Introduction of 37 MW Solar Power System and High Efficiency Melting Furnace in Vehicle & Engine Factory
10	Thailand	NIPPON STEEL ENGINEERING CO., LTD.	Efficiency Improvement of Co-generation System by Installation of Heat Exchanger in Fiber Factory
11	Philippines	ITOCHU Corporation	Biogas Power Generation and Fuel Conversion Project in Pineapple Canneries
12	Maldives	Sharp Energy Solutions Corporation	1.1MW Rooftop Solar System in Maamigili and Maandhoo Island (Withdrawal of application)
13	Vietnam	Hitachi-Johnson Controls Air Conditioning, Inc.	Introduction of High Efficiency Air-conditioning System and Air Cooled Chillers to Hotel and Office Buildings
14	Indonesia	Aura Green Energy Co., Ltd	2MW Mini Hydro Power Plant Project in East Nusa Tenggara Province
15	Indonesia	Japan Pulp and Paper Company Limited	Introduction of High Efficiency Boiler System to Carton Box Factory
16	Chile	Asian Gateway Corporation	3.4MW Rice Husk Power Generation Project in Maule
17	Ethiopia	Sharp Energy Solutions Corporation	120MW Solar Power Project in Metehara, Oromia Region
18	Vietnam	Kanematsu KGK Corp.	49MW Solar Power Project in An Giang Province
19	Vietnam	Hitachi-Johnson Controls Air Conditioning, Inc.	Centrifugal Chillers to Hospital Buildings (Withdrawal of application)
20	Indonesia	Voith Fuji Hydro K.K.	10MW Hydro Power Project in Bengkulu Province
21	Indonesia	Voith Fuji Hydro K.K.	6MW Hydro Power Project in West Sumatera Province
22	Cambodia	WWB Corporation	Hybrid Power Plant Project with Biomass and Solar Power in Kandal Province
23	Cambodia	Asian Gateway Corporation	Introduction of 1.1MW Solar Power System at International School
24	Chile	FARMLAND Co., Ltd.	3MW Solar Power Project in Chillan, Nuble Region
25	Thailand	GLOBAL ENGINEERING Co., Ltd.	Introduction of 15MW Biomass Power System to Sugar Plant
26	Philippines	Chodai Co., Ltd.	33MW Wind Power Project in Caraga Region, Mindanao

As of March 2020, GEC has managed total of 157 Model Projects and more than half of the projects have completed the installation of facilities. These projects have been, or are expected to be, registered as JCM Projects, and the GHG emission reductions will be appropriately calculated for issuing JCM credits through a robust process.

Photos from Model Projects that completed installation in FY2019



Mexico

- Introduction of Energy Efficient Distillation System to Tequila Plant
- Suntory Spirits Ltd.
- Tequila Sauza



Myanmar

- Introduction of Biogas Boiler and Waste Heat Recovery System to Beer Factory
- Kirin Holdings Company, Ltd.
- Myanmar Brewery Ltd.



Indonesia

- Introduction of High Efficiency Injection Molding Machine to Plastic Parts Factory
- Tokyo Century Corporation
- PT. Dynaplast, PT. Century Tokyo Leasing Indonesia



Thailand

- Introduction of Biomass Boiler to Cooking Oil Factory
- Tepia Corporation Japan Co., Ltd.
- Thanakorn Vegetable Oil Products Co., Ltd.



Mongolia

- Introduction of 15MW Solar Power System near New Airport
- Sharp Energy Solutions Corporation
- Tenuun Gerel Construction LLC



Lao PDR

- Introduction of 14MW floating solar power system in Vientiane
- TSB Co., Ltd
- TPG Vientiane Co., Ltd.

**Indonesia**

- Introduction of Gas Co-generation System and Absorption Chiller to Motor Parts Factory
- DENSO
- PT DENSO INDONESIA (DNIA)

**Thailand**

- Introduction of 5MW Floating Solar Power System on Industrial Water Reservoir
- TSB Co.,Ltd.
- Green Energy Co., Ltd.
- Infinite Green Co., Ltd.

**Thailand**

- Introduction of 30MW Rooftop Solar Power System to Large Supermarkets
- Sharp Energy Solutions Corporation
- Impact Electrons Siam Co., Ltd./Impact Solar Limited

**Mexico**

- Introduction of 1.2MW Power Generation with Methane Gas Recovery System
- NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.
- MGM Metano Mexicano
- S. de R.L. de C.V.
- Energreen Holdings, S.A.P.I. de C.V.

Various Activities to Promote the Joint Crediting Mechanism (JCM)

GEC carried out various activities to promote the JCM scheme as outlined below.

A Various support for efficient implementation of MRV activities on the Financing Programme for JCM Model Projects**(1) Support for process of MRV activities**

GEC implemented this duty for the first time in the fiscal year 2019. Also, this duty is to support for process of MRV activities such as JCM project registration and credit issuance of JCM Model Projects. In the fiscal year 2019, GEC supported 20 project registrations and 14 credit issuances for projects in which facilities were installed on the JCM Model Projects.

GEC held explanatory meetings for representative participants of the selected JCM projects in the fiscal year 2019 to promote understanding in the MRV process including points to note in MRV and list of tasks. GEC also held an explanatory meeting for representative participants who completed the JCM Project on 7th Feb in cooperation with MOEJ and the Institute for Global Environmental Strategies (IGES) to prepare for the application of the JCM credit issuance of GHG emission reduction until 2020.



JC8 in Vietnam on 28th May



JC4 in Maldives on 10th July



JC3 in Chile on 30th Aug.



JC9 in Indonesia on 31st Oct and 1st Nov.



JC4 in Kenya on 27th Jan.



JC4 in Ethiopia on 30th Jan.



JC5 in Cambodia on 21st Feb

Also, GEC attended the joint committees with partner countries (JC: this committee consists of the members of both Japanese and partner country's governments and is an organization to implement the sequence of process.) and supported the JCM project registration and credit issuance. GEC also explained project details and the progress as an implementing organization.

(2) Manage the smooth implementation of JCM Projects

GEC confirmed annual project reports for the JCM Model Project and submitted them to MOEJ.

GEC received 91 annual project reports from representative participants of JCM Model project who completed the installation of facilities and started operation. GEC confirmed the reports and submitted them to MOEJ.

B JCM Seminars and Match-Making Events Organized by GEC

(1) Seminar on JCM Project Implementation in Santiago, Chile

Around 100 participants attended the seminar as well as the match-making event that took place subsequently after the seminar. The match-making event was a rare opportunity to discuss potential JCM projects with others, both for participants who found potential JCM project partners on the newly launched JCM Global Match prior to the event, as well as for those who met potential partners at the event. At this match-making event in Chile, a handful of participants had a face-to-face meeting with fellow participants, where they discussed their plans to create and submit their JCM project proposals in the future.



Chile

(2) Seminar on JCM Project Implementation in Bangkok, Thailand

Around 200 participants joined the seminar as well as the match-making event, where active discussion took place between representatives from both Japanese and local entities, on creating a JCM project together. Most of these participants used the JCM Global Match website to find their potential project partner and agreed to meet in person at the event in advance.



Thailand

(3) Seminar on JCM Project Implementation in Ho Chi Minh City, Vietnam

Around 200 participants attended the seminar and the match-making event. At the match-making event, representatives from 9 companies, who met other participants through the JCM Global Match prior to the event, had an opportunity to have a face-to-face meeting to discuss potential JCM projects. In addition, many of the other participants used the event as a networking opportunity, as well as a chance to have a personal Q&A session with event organizers as well as the local government officials, all of whom are well-versed in the rules and past experiences about the JCM scheme.



Vietnam

(4) Seminar on JCM Project Implementation in Jakarta, Indonesia

Around 200 participants joined the JCM seminar and



Indonesia

the match-making event. The match-making event saw representatives from 4 companies conduct in-person meetings with fellow participants whom they met through the JCM Global Match. In addition, representatives from more than 30 companies actively sought and met with fellow participants to discuss future projects.

C International Conferences and Events

GEC held a booth at several international conferences and events on climate change, where we introduced JCM to other attendants.

(1) Innovate4Climate

GEC held a booth at the Innovate4Climate, an international conference on climate change organized by the World Bank and held in Singapore from June 5 through 7, 2019. They introduced JCM and discussed potential projects with other fellow participants who traveled from around the world. In addition, GEC attended workshops and seminars that were held during the event where they met with prominent presenters as well as attendees and introduced JCM to them.



Innovate4Climate



TICAD7

(2) TICAD7

GEC attended the 7th Tokyo International Conference on African Development (TICAD7) from August 27 through 30, 2019, in order to hold a booth and meet and introduce the JCM to other attendees and presenters, including government officials and representatives from public and private entities.

D Other JCM-related Events

GEC co-organized JCM workshops in the following countries.

(1) Workshop on JCM Project Implementation in Ulaanbaatar, Mongolia

GEC co-organized a workshop on JCM where around 100 participants had an opportunity to learn about the progress of the ongoing JCM projects including ones that are taking place in Mongolia, as well as about the newly launched JCM Global Match website. The match-making event, which was held after the seminar, saw active participation where 14 meetings between participants took place to discuss potential JCM projects. The organizers were also available to answer questions from the participants throughout the event.



Mongolia



Bangladesh

(2) Workshop on JCM Project Implementation in Dhaka, Bangladesh

GEC co-hosted a JCM workshop which was attended by around 90 participants. The match-making event included more than 20 meetings between participants and lively conversations on how to utilize JCM for introducing low-carbon technologies in Bangladesh.



Myanmar

(3) Workshop on JCM Project Implementation in Yangon, Myanmar

GEC co-hosted a JCM workshop where around 60 participants had a chance to learn about the most up-to-date information on the ongoing JCM projects; advice on proposal submission; and the JCM Global Match. The organizers were also available to answer questions both from local and Japanese entities.

E Symposia held in Tokyo and Osaka

For the expansion and acceleration of JCM financing programme, GEC held two symposia in Japan; Tokyo and Osaka, in November 2019.

The expansion of environmental infrastructure through JCM programme or collaboration with various financial schemes with the JCM, and past projects were discussed by participants.



Symposium in Osaka



Symposium in Tokyo

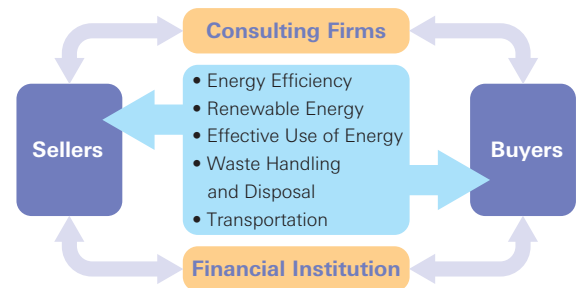
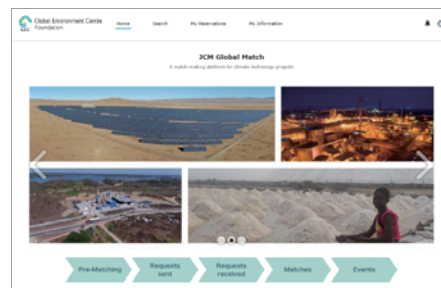
F Establishment of a business matching website “JCM Global Match”

Aiming to create more JCM projects, “JCM Global Match” has started its operation in July 2019. This is a match-making website which connects companies of JCM partner countries to Japanese companies which are interested in making JCM projects.

As of March, 2020, the number of registrants is 356 (including 103 Japanese companies) and 191 matchings has been counted

The website can be visited at <https://gec.force.com/JCMGlobalMatch/s/>

The top page of the “JCM Global Match” and its structure.



G Other Activities

(1) JCM REDD+

GEC provided support, in collaboration with Waseda University and IGES, on data collection and analysis to develop MRV methodology for a REDD+ project entitled “Reducing GHG emissions from deforestation and forest degradation through controlling shifting cultivation in Phonxay District, Luang Prabang Province of Lao PDR”, which was active from 2016 through 2018.

(2) JCM Eco Lease

At the request from the Ministry of the Environment, Japan, GEC conducted analysis on the feasibility of including equipment leasing as one of the project schemes eligible under the JCM programme. For this, GEC undertook interviews with leading equipment leasing companies located in Japan, and developed proposal submission guidelines. The JCM Eco Lease scheme is now officially part of the eligible project scheme for JCM financing programme.

(3) Identification of Large-scale JCM Projects

To answer the question on how to use JCM to accelerate the diffusion of low-carbon and decarbonizing technologies in developing countries, GEC conducted analysis on

the effectiveness and feasibility of various technologies. As a result, GEC concluded and reported to the Ministry of the Environment, Japan that smart city and green building projects –a topic which is gaining interest in many regions of the world– can be an area where the effect of JCM can serve as a catalyst for further diffusion of such projects. GEC also proposed that networking and collaborating with local and international financial institutions as well as development agencies would be one of the effective approaches to identify potential projects.

Efforts to Promote Financial Support Schemes other than JCM Model Projects

A Support on CTCN and GCF Project Development

In order to respond to the urgent need to accelerate the uptake of low-carbon technologies, GEC was commissioned by the Ministry of the Environment, Japan to identify and develop project proposals for the Climate Technology Centre and Network (CTCN) and the Green Climate Fund (GCF), both an entity established under the UN Framework Convention on Climate Change (UNFCCC) in cooperation with developing country stakeholders including government officials.



As a result, five potential projects were identified, and proposal forms were developed by the partners country officials with assistance from GEC, as well as other experts from the private sector in Japan. In addition, the results and the lessons learned from this project were presented at the Japan Pavilion held at the COP25 held in Madrid, Spain, which was attended by government officials as well as other stakeholders from both private and public entities.

B Support on Project Evaluation for Japan Fund for JCM (JFJCM)

In order to accelerate the diffusion of low-carbon and decarbonizing technologies especially in the Southeast Asia region, the Ministry of the Environment, Japan has established the Japan Fund for the Joint Crediting Mechanism (JFJCM) at the Asian Development Bank (ADB) in 2014. As part of the work commissioned by the MOEJ, GEC performed various tasks related to the evaluation of proposals submitted for funding from the JFJCM, including performing evaluation of the effectiveness of technologies proposed, as well as organizing selection committee meetings.

As a result, a project entitled “Greater Male Waste to Energy Project” in Maldives which involves the construction of a 12 MW waste-to-energy facility as well as the repairment of the existing waste management facilities is set to be approved for funding in 2020.

Osaka JCM Network project

In order to encourage companies operating in Osaka to engage and take the initiative in JCM projects, GEC now serves as the secretariat for the Osaka JCM Network.

Osaka JCM Network promotes the communications among private sectors to develop and implement environmental projects and/or energy saving businesses, in particular through the JCM.

Activities in FY2019

- Holding the Osaka Carbon Conference 2019 (COP 25 reporting session).
- Providing the Study Session on CFP (Carbon Foot Print) and LCA (Life Cycle Assessment).
- Offering information through the website.

Renovation and Demonstration of Advanced Low-Carbon Technologies to Adapt to Developing Countries' Needs

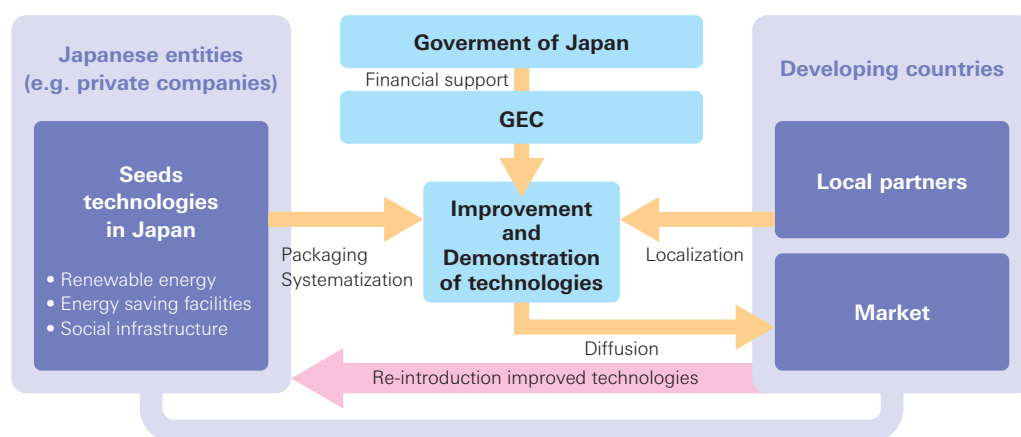
(1) Financing Programme to Demonstrate Advanced Low-Carbon Technology Innovation for Further Deployment in Developing Countries in FY2018

In “Financing Programme to Demonstrate Advanced Low-Carbon Technology Innovation for Further Deployment in Developing Countries in FY2018”, GEC has been in charge of overseeing the progress of the projects that carried over the budget from FY2018, owing to a change of the representative participant. GEC conducted an intermediate on-site inspection in August 2019 and an on-site final inspection in December 2019, to ensure that the project had been implemented as planned. GEC issued a financial support for the project participants in March 2020.

(2) Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation in FY2019

On behalf of the MOEJ, GEC began implementing a “Financing Program to Demonstrate Decarbonization Technology for Realizing Co-Innovation” starting in 2019.

This financing program aims to create innovation beneficial for both Japan and developing countries through collaboration (co-innovation). The purpose of this financing program is creating a low-carbon society through renovation and dissemination of high quality low-carbon technologies (including decarbonizing technologies) and products, which are Japan’s strengths, by means of systemization and packaging of multiple technologies, and encouraging uptake of such technologies and bringing benefits to the developers in Japan as a result.



GEC's Activities in FY2019

- GEC developed the Rules for Financial Support and Guidelines for Submitting Proposals in consultation with the MOEJ. In addition, GEC adopted the Evaluation Criteria after deliberation by the evaluation committee, and opened the call for new project proposals.
- The call for proposals of this financing program was posted on the website of GEC. A briefing session was held in Tokyo and Osaka.
- 1st selection period: 22 Apr 2019 to 31 May 2019
Briefing session: 24 Apr 2019 in Tokyo (attended by around 90 participants)
25 Apr 2019 in Osaka (attended around 30 participants)
- Proposal evaluation: After the closing of the call for proposals, GEC assisted the evaluation committee, which is consisted of experts, on reviewing proposals and conducting interviews with applicants. Based on the results, and after consultation with the MOEJ, a total of 5 projects were selected for funding under the financial program, (one applicant, however, declined the offer for the financial support before the Notice of Contract of Finance was issued.)

- Final Approval Process: Upon receiving an official request for funding from the remaining applicants, GEC conducted a final review of the application documents. After that, Notice of Contract of Finance was issued to representative participants of 4 projects that were selected in FY2019.
- 2nd selection period: The second selection was implemented from 5 Aug 2019 to 30 Aug 2019. As a result of the evaluation process, 3 projects were selected. After that, GEC conducted a review of application documents and Notice of Contract of Finance was issued to the representative participants.
- 3rd selection: The third selection was implemented from 11 Oct 2019 to 1 Nov 2019. As a result of evaluation, 1 project was selected. After that, GEC conducted a review of application documents and Notice of Contract of Finance was issued to representative participant.
- Project management: GEC oversaw the progress of all the projects in FY2019 through monthly reports, meetings, and site inspections, and provided suggestions for improvement when needed. In addition, GEC conducted intermediate inspections in October, in order to review expenses-related documents of participants and to provide instructions on management of expenses during latter half of the fiscal year.
- Intermediate evaluation: 7 projects (excluding the project which was selected in 3rd selection) were evaluated by the evaluation committee based on an intermediate progress report submitted by each project participant, on 3 Feb 2020.
- Final inspection: GEC conducted a review of the final reports (including evaluation of final reports and on-site inspection) and disbursement of financial support within FY2019, in regards to 8 projects that were selected in FY2019.
- GEC approved the Application of Approval the Beginning of Next Fiscal Year's Project, in regards to 7 projects that expect to commence prior to the first day of the fiscal year 2020.

New projects selected in FY2019 (8 projects)

No.	Country	Project Participants	Title
19-1	Thailand	Chubu Electric Power Co., Inc.	Development of Compressor Optimized Operations Service Utilizing IoT and Demonstration Project in Kingdom of Thailand
19-2	Cambodia, Laos, Philippines	Toyota Tsusho Corporation	Demonstration for Development and Introduction of Electric Vehicle in Asian Countries with Reusing Main Components Recovered from Spent Hybrid Vehicle
19-3	Philippines	Challenergy Inc.	Development of High Wind Speed Resistance Magnus Vertical Axis Wind Turbine Aiming for the Cost-Efficient and High-Resilient Micro-Grid System
19-4	Philippines, Vietnam, Laos, Thailand	Climate Experts, Ltd.	Demonstration Project of Mobile Container Refrigerator with High Humidity for Innovative Cold Chain for Fruits/Vegetables/Flowers in Developing Countries
19-5	Indonesia	Sugawara Industry Co., Ltd.	Verification for Cost Reduction and Low Carbonization of the Pavement Recycling Technology with Asphalt Wastes for Indonesia
19-6	Maldives	Tamaden Industry Co., Ltd.	Development of Hybrid Autonomous Power Control System with Renewal Energy in Small Remote Islands
19-7	Indonesia	Datatec Co., Ltd	Demonstration Test Using an In-Vehicle Device (ISR: Indonesian version of the Safety Recorder) for Indonesian Commercial Vehicle to Improve Fuel and Logistics Efficiency
19-8	Philippines	Zenmov Inc.	Demonstration of Low-Carbon Society by Easing Traffic Congestion by Optimization of Public Vehicle Allocation and Utilizing Electricity Derived from Renewable Energy



19-1
Compressor Monitoring Devices Utilizing IoT



19-2
Electric cart with reused HV components

Japan International Cooperation Agency (JICA) Group Training Project



Practice of Composting

Job Report

Report prepared by a participant on the environmental administration system and the environmental issues of the country concerned. The reporting session held at the beginning of the training course is intended to minimise the perception gap between the participants and the instructors concerned.

Action Plan

Plan prepared by a participant at the end of the training course on how to improve the environment of his/her country, building on the insight gained in the training period. The final presentation session is intended to improve the feasibility of the Action Plan through advice provided by the audience (mainly lecturers).

Commissioned by JICA, GEC has carried out the training course of Improvement of Solid Waste Management Technologies (Basic, Techniques) that is designed for engineering or administrative government officials in developing countries.

At the beginning of the course, the participants from each country presented their own 'job report'* in order to share the challenges that their country faces. They worked on developing 'action plans'* through participating in the course and shared amongst themselves how the knowledge and expertise gained during the programme could be applied to their country's policy-making.

A training course which is popular in developing countries will continue to be provided, based on coordination with the relevant organisations, in order to meet the diverse range of individual needs. We will also remain vigilant regarding any emerging demand for training in new areas of interest and will bolster the cooperation with research institutions and other relevant organisations.

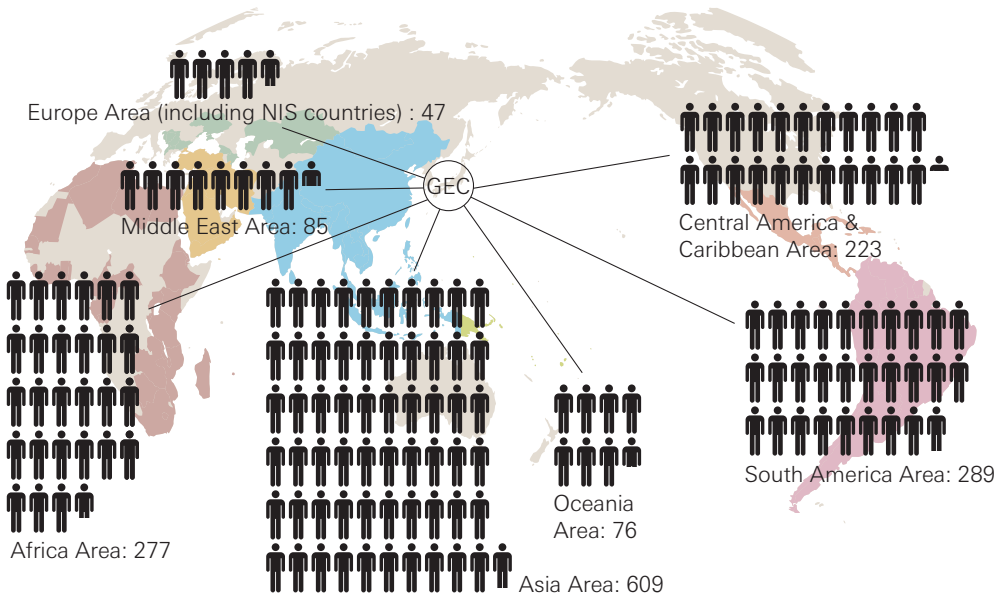
Improvement of Solid Waste Management Technologies (Basic, Techniques)

Training Dates	Participants	Programme
2019 23 May – 16 July	5 participants: Myanmar (1) Papua New Guinea (1) Timor-Leste (1) Ukraine (1) Vietnam (1)	<p><u>Objective</u> To develop leaders and core people who will play a major role in the planning and execution of waste management projects in their own countries.</p> <p><u>Collaborators</u> UNEP-IETC, Osaka City Environment Bureau, Fukuoka City, Kobe City, Kyoto City, Fukuoka University, Osaka City University, Osaka City University Hospital, Kitakyushu Eco-Town Center, Nantan City Yagi Bioecology Center, Nantan Clean Center, Senri Recycle Plaza, EX Research Institute Ltd., Kokusai Kogyo Co. Ltd., Takakura Environment Research Institute, Daiei Kankyo, Daiwa Itagami Co. Ltd., Kansai Recycling Systems Co., Ltd., Kawase Co., Ltd., Nomura Kohsan Co. Ltd., Sunny Metal Corporation, Kobe Environmental Creation Co., Ltd., Hitachi Zosen Corporation, etc.</p> <p><u>Lectures</u> Introduction to Waste Treatment; Introduction to Intermediate Treatment Facilities; Introduction to Sanitary Landfill Technology; Introduction to Hazardous Waste Treatment Technology, etc.</p> <p><u>Site Visits</u> Waste Collection and Transportation Work, Waste Incineration Plant, Home Appliance Recycling Facility, Bip-gas Facility, Citizen Cooperation for Segregation, Sanitary Landfill Disposal Site, etc.</p>

GEC Networking Project for Former Training Course Participants

Since FY1998, GEC has established a GEC Overseas Trainee Network in order to provide follow-up and accurately understand the current needs in developing countries. We are working to reinforce the network by operating a member (former trainee) website (renamed "JICA-GEC Network" in FY2005) and organising local follow-up seminars.

Since FY2018, GEC has been working on transitioning to a system with a new network platform leveraging the increasingly popular SNS services. We launched the new system on a pilot basis, registering 5 new members in FY2019. We now have 1,601 members in total, including the existing registered members.



Establishment of Global Environment Centre Foundation (GEC)

Establishment of UN Environment International Environmental Technology Centre (IETC)

August 1989	In the lead-up to the International Garden and Greenery Exposition, the Municipality of Osaka announced the invitation of international organisations active in the field of global environmental conservation, in line with the spirit of the exposition and in order to share the experience of Osaka in environmental conservation.
April 1990	The International Garden and Greenery Exposition was held under the theme of 'Symbiosis between Nature and Humans.'
July 1990	At the Houston Summit, held in the US, Prime Minister Kaifu announced an initiative to establish a presence of the UN Environment Programme (UNEP) in Japan.
August 1990	At the second special session of the UNEP Governing Council, Naohiro Kumagai, Japanese Ambassador to Kenya, proposed the establishment of the International Environmental Technology Centre (IETC).
May 1991	In its 16th session, the UNEP Governing Council unanimously adopted the establishment of IETC, to promote the application, implementation and adaptation of environmentally sound technologies in the developing world.
October 1992	Mostafa K. Tolba, Executive Director of UNEP, and Koji Kakizawa, Parliamentary Vice-Minister for Foreign Affairs, signed an agreement to set up IETC in Osaka.
April 1994	IETC officially started operation.

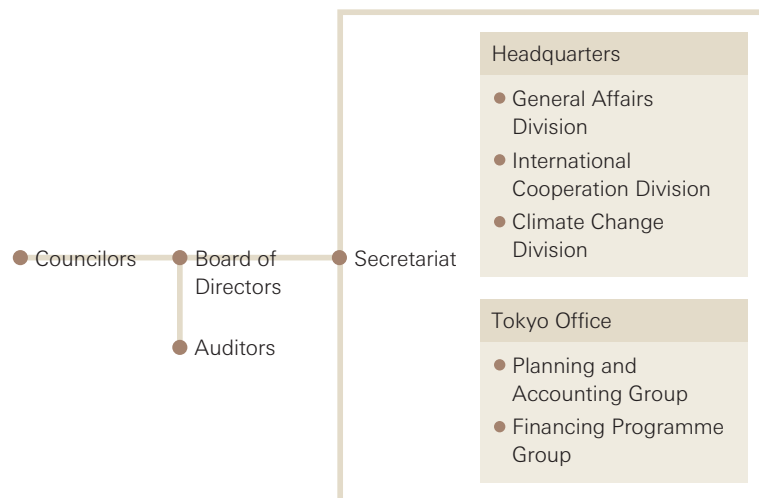
Establishment of GEC

July 1991	The Municipality of Osaka established a Preparatory Office for Establishment of UNEP International Environmental Technology Centre (IETC) Osaka.
January 1992	Global Environment Centre Foundation (GEC) was launched as a juridical body in support of UNEP, with basic funds provided by the Prefecture and Municipality of Osaka.
October 2009	An application was submitted to change GEC to a public interest incorporated foundation following the promulgation of the Three Acts for Public Interest Foundation Reform.
March 2010	GEC was certified by the Prime Minister as a public interest incorporated foundation.
April 2010	GEC was re-established as a public interest incorporated foundation.
April 2014	GEC opened its Tokyo Office.

Outline

Name	Global Environment Centre Foundation (GEC)
Date of Establishment	28 January 1992
Office Location	[Headquarters] 2-110 Ryokuchi-koen, Tsurumi-ku, Osaka 538-0036 Japan Telephone: +81-(0)6-6915-4121 Facsimile: +81-(0)6-6915-0181 [Tokyo Office] Hongo Ozeki Bldg., 3-19-4, Hongo Bunkyo-ku, Tokyo 113-0033, Japan Telephone: +81-(0)3-6801-8860 Facsimile: +81-(0)3-6801-8861
Endowments	1,754,160,000 yen
Activities	(1) Projects in support of IETC stated aims of technical transfers and spreading information on environmentally sound technologies (ESTs) to promote environmental conservation in major urban areas of developing nations. (2) Collection, dissemination, surveying & research of information on environmental conservation in developing nations & the world as well as global warming countermeasures to promote technical cooperation and foster human resources in developing nations. (3) Other projects required to achieve GEC's stated aims.
Number of Staff	53

Organization Chart



(as of 1 July 2020)



Overview of the Global Environment Centre Foundation

Board Members of the GEC

Councilors	AONO, Chikahiro	Director General, Environment Bureau, Osaka City Government
	FUJITSUKA, Tetsuro	Managing Director, Sustainable Society Promotion Consultant Association
	KANAMORI, Kazu	Senior Executive Director - Environmental Management, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government
	KATAOKA, Shigehiro	Attorney
	KUSUI, Yuko	General Manager, EGS Office, Corporate Strategy Department, Osaka Gas Co., Ltd.
	MIZUNO, Minoru	Professor Emeritus, Osaka University
	MORIOKA, Tohru	Professor Emeritus, Osaka University Professor Emeritus, Kansai University
	SAKAI, Shinichi	Professor, Environment Preservation Research Center, Kyoto University
	SATO, Kunihiko	Director General, Kansai Center of the Japan International Cooperation Agency
	TANIGUCHI, Yasuhiko	Head Director, Environmental Management and Technology Center
President	SUZUKI, Naoshi	
Executive Director	KITATSUJI, Takuya	
Executive Director, Tokyo Office	KIMURA, Yuji	
Directors	FUKUOKA, Masako	Associate Professor, Department of Environmental Engineering, Osaka Institute of Technology
	MAKIYAMA, Ako	Executive Director Director, Industry Division, Osaka Chamber of Commerce and Industry
	MATSUKURA, Katsuhiro	General Manager, Economic Research Department, Kansai Economic Federation
	NISHIMURA, Nobuya	Professor, Graduate School of Engineering, Osaka City University
	OTSUKI, Yoshinobu	Former General Manager, Environmental Management Office, Department of Environment, Agriculture, Forestry and Fisheries, Osaka Prefectural Government
Auditors	TAKI, Hideo	Director, Osaka Gas Foundation of International Cultural Exchange
	MIYAMOTO, Hiroshi	Former Manager of Community Welfare and Services Division, Chuo Ward Public Health and Welfare Center, Osaka City Government

(as of 1 July 2020, honorific omitted; name in alphabetical order <Surname>)

Overview of the UNEP-IETC

Name	International Environmental Technology Centre (IETC) Economy Division United Nations Environment Programme (UNEP)
Agreement	The agreement between Japanese Government and UNEP was signed on 30 October 1992.
Vision	IETC works with developing countries to implement sustainable solutions to environmental challenges, with focus on holistic waste management.
Contacts	Office: 2-110 Ryokuchi-koen, Tsurumi-ku, Osaka 538-0036 Japan Telephone: +81-(0)6-6915-4581 Email: ietc@un.org IETC homepage: https://www.unenvironment.org/ietc/

**Global Environment Centre Foundation
Annual Report 2019**

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