

Global Environment Centre Foundation

Annual Report 2023



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Message from President

The Global Environment Centre Foundation (GEC) engages in a wide range of activities to promote projects for conserving the global environment through international cooperation, including providing technical assistance to developing countries, addressing climate change mitigation and international training, as well as helping to achieve the Sustainable Development Goals (SDGs) and reduce greenhouse gas (GHG) emissions under the Paris Agreement.

To support the activities of the United Nations Environment Programme International Environmental Technology Centre (UNEP-IETC), which is also an objective of the GEC's establishment, projects have been implemented in cooperation with the City of Osaka, including a workshop on waste management and support for UNEP Sustainability Action. Efforts have also been made to promote a key strategy to tackle plastic pollution, which is one of the most pressing issues facing our planet.

Elsewhere in the field of international cooperation, we will continue to support national and local governments in promoting their key policies through our projects in support of market opportunities in Asia, including Promotion of the Water Environment Business, and Support for Tripartite Environment Ministers Meeting among China, Japan and Korea (TEMM).

With regard to climate action, the Japanese government issued a 2050 Carbon Neutral declaration in October 2020, followed by the announcement of a policy in April 2021 for a 46% reduction in greenhouse gas (GHG) emissions from the FY2013 level by FY2030. Under the Joint Crediting Mechanism (JCM), implemented in coordination with developing countries, Japan has been promoting initiatives to share credits for reducing GHGs with partner countries through bilateral climate action projects, which is acclaimed as a model of the cooperative approaches set forth in Article 6(2) of the Paris Agreement.

The GEC is supporting climate action overseas through the promotion of JCM and active implementation of various JCM-related projects. Concrete actions include acting as an implementing organisation of the Financing Programme for JCM Model Projects, which provide financial support to climate action projects in JCM partner countries, and a programme aimed at demonstrating hydrogen and other new technologies for dissemination through JCM projects. We have also been taking action to support a series of JCM procedures, ranging from registration as JCM projects to credit issuance, for model projects that commenced operation following the completion of the financing programme.

The world is now experiencing increasingly frequent weather events considered to be caused by global warming, such as localised torrential rains and powerful storms, as well as emerging environment and human rights issues including those related to resource extraction. Consistent efforts to conserve the global environment, including through the reduction of GHG emissions, are indispensable in order to avoid the most serious consequences such as food crises and devastating natural disasters.

The GEC remains strongly committed to helping achieve the SDGs and the global warming agenda under the Paris Agreement, working with relevant organisations with heightened awareness of global trends and leveraging our expertise, experience and networks both in Japan and overseas. We thus believe that the GEC will play an even more important role going forward.

The GEC is determined actively to engage in cooperation with, and support for UNEP-IETC particularly through national and international communication efforts, including through Expo 2025 in Osaka, Kansai.

We would appreciate your continued understanding and support for our activities.



July 2024

SHIMOJO Shinji
President
Global Environment Centre Foundation

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



Global Environment Centre Foundation (GEC) was commissioned by the City of Osaka to carry out the “UNEP-IETC Collaboration Project in FY 2022,” and implemented projects related to “Implementation of International Workshops,” “Survey of Environmental Support Needs in Developing Countries,” “Public Relations Support for IETC,” and “Implementation of meetings and Events to support UNEP Sustainability Actions. In addition, we were commissioned by the IETC to conduct a project related to the UNEP-IETC programme “Promotion and Delivery of Environmentally Sound Technologies and Methods and In-country Technical and Advisory Support”, supported and development of a “Research Report on Sustainable Waste Management”, the organization of events and conferences related to the IETC’s 30th anniversary and the production of a commemorative video, and outreach activities.

To contribute to the achievement of the SDGs, we actively participated in and supported UNEP Sustainability Action as a member, and promoted efforts in collaboration with IETC, the Japanese government, Osaka Prefecture and City, and related companies and organizations to implement the PLL (People’s Living Lab) proposal for the Expo 2025 Osaka, Kansai.

Support Activities for IETC Collaboration Project (Commissioned by Osaka City)

(1) International Workshop

UNEP-IETC has launched the Integrated Waste Management (ISWM) Programme as a new project under the UNEP Mid-term Strategy. As a kickoff of this project, an international workshop was organized on March 8, 2024, on the occasion of the UNEP Workshop “Multi-stakeholder Meeting for Knowledge Sharing on Waste Plastics” held in Bangkok, Thailand in March 2024. On March 7, the day before the workshop, Stakeholders’ meeting on UNEP Integrated Waste Management Programme” was held to exchange information on areas of collaboration with IETC partners and organizations. In addition, GEC provided support for the following IETC webinars on waste management held in November.

- Towards Zero Waste – a catalyst for delivering the Sustainable Developing Goals
- Gender and Waste – How to mainstream gender into national waste management policy

The details of these events are as follows.

Integrated Waste Management Project Kick-off:

Step 1 Towards Zero Waste – Applying Circularity for Plastic Waste

Date:	8 March, 11:45–13:00
Venue:	Centara Life Hotel Bangkok Phra Nakhon Meeting Room (Bangkok, Thailand)
Participants:	About 80 people (from Sri Lanka, Nepal, Cambodia, Malaysia, Indonesia, Thailand, Japan, etc.)
Speakers:	UNEP-IETC, GEC, IGES Centre Collaborating with UNEP on Environmental Technologies (IGES-CCET), Environmental Bureau Osaka City (video message)



Stakeholders' Meeting on UNEP Integrated Waste Management Programme

Date: March 7, 10:00–11:00
 Venue: Centara Life Hotel Bangkok Phra Nakhon (Bangkok, Thailand)
 Participants: UNEP Chemicals and Pollution Action Division, UNEP-IETC, UNOSD, Embassy of Japan in Thailand, Penang State of Malaysia, Asian Institute of Technology, IGES CCET, Hitachi Zosen Corporation, Eastern Seaboard Environmental Complex Co., Ltd.



Towards Zero Waste – a Catalyst for Delivering the Sustainable Developing Goals

Date: 23 November, 23:00–0:30
 Purpose: launching event for the new IETC report
 Format: Online (Zoom)
 Participants: Approx. 300 people
 Speakers: UNEP-IETC, Zoë Renkiewicz (lead author), Mayor of Canfin (Gambia), ReciVeci (Ecuador), Green Worms (India)



source: UNEP IETC website

Gender and Waste – How to mainstream gender into national waste management policy

Date: 28 November, 21:00–22:30
 Objective: To highlight and deepen understanding of the important relationship between waste management and gender
 Format: Online (Zoom)
 Participants: Approx. 300 people
 Speakers: UNEP-IETC, Ministry of Environment of Uruguay, Environmental Trust of Jamaica, LEAD Nepal, Ministry of Energy and Natural Resources of Bhutan



source: UNEP IETC website

(2) Support for Promoting Cooperation with International Cities

GEC carried out the following support activities for Maharashtra, India and Greater Manchester, UK.

• Maharashtra State, India

Based on the Memorandum of Understanding (MOU) for cooperation in the environment and energy sectors between the Environmental Bureau Osaka City and Maharashtra State Pollution Control Board (MPCB), the first policy dialogue was held in India in August 2023. In addition, as part of the needs survey in the environment and energy sector, GEC visited a waste treatment facility and an EV bus charging station. The visit was successful in building an agreement on the holding of ongoing policy dialogue in future, as well as in gathering useful information on specific environmental needs and the current status of the sector.



• Greater Manchester, U.K.

As part of the coordination and implementation support for the Greater Manchester (GM) exchange program, GEC provided support for preparing the document of “Outline of Decarbonization Leading Areas” to be used for the exchange program for the GM's visit to Osaka in December.

(3) Public Relations and Outreach Activities for UNEP-IETC

GEC participated in the following events and exhibitions in order to promote IETC’s public relations and outreach activities. We also conducted public relations activities through the IETC website and official social networking sites (Facebook, X, Instagram, and YouTube).

• **Environmental Exhibitions**



“Global Festa” in Tokyo
29 September, 1 October 2023



“Eco Pro Exhibition 2023” in Tokyo
6–8 December 2023



“One World Festival” in Osaka
3–4 February 2024

• **Environmental Events**



“World Environment Day Event at Kaiyukan (aquarium)”
11 June 2023



“Environment Event at Hankyu Department Store”
29 July 2023



“Eco En-Nichi 2023”
11 November 2023



“One-day Event at Tennoji Zoo”
26 November 2023

(4) Support for UNEP Sustainability Action

GEC managed the UNEP Sustainability Action official website and organized regular team meetings (twice a month). In addition, we organized the following four events.

UNEP-IETC World Environment Day Webinar

Date and Time: 6 June (16:00–17:30)
 Venue: Webinar
 Speakers: UNEP-IETC, Ministry of Foreign Affairs, Secretariat of the Intergovernmental Negotiating Committee on Plastics, Government of Pakistan, Seven & i Holdings Co. Ltd.
 Summary: In line with the theme of this year’s World Environment Day, “Beat Plastic Pollution,” this webinar focused on plastic pollution, introducing various initiatives from around the world and discussing future progress toward building a sustainable society and transitioning to a circular economy.



UNEP Workshop “From Waste to Resources: Sustainable Plastic Container and Packaging Management”

Date and Time: 7 July (10:00–11:45)
 Venue: GEC Tokyo Office
 Attendees: UNEP-DTIE, UNEP-IETC, 11 companies (UNEP Sustainability Action Team companies, manufacturing companies, beverage water manufacturers, chemical industry, etc.)
 Summary: The purpose of this workshop was to exchange views on solutions to the international plastic pollution problem and future developments across the board through advanced and innovative initiatives being implemented by companies and organizations in Japan, which are taking a leadership role in the plastic pollution issue. (Closed event)



UNEP Sustainability Forum – Evolving Possibilities and a Sustainable Future Society

Date and Time: 7 December (14:50–15:30)
 Venue: Ecopro 2023 (Tokyo Big Sight)
 Speakers: UNEP IETC, Fast Retailing Co. Ltd, Seven & i Holdings Co., Ltd., Rakuten Group, Inc. and Kosaka Daimaou
 Summary: Three global companies and Mr. Kosaka, advisor of UNEP Sustainability Action introduced their perspective on a sustainable society. Approximately 150 people attended the event.



UNEP Sustainability Action Talk Event at One World Festival

Date and Time: 3 February (14:20–15:10)
 Venue: Conference Room, Umeda Sky Building (venue of One World Festival)
 Speakers: UNEP-IETC, Osaka City, Seven-Eleven Japan Co., Ltd., Akachan Honpo Co., Ltd.
 Summary: Under the theme of “Evolving Sustainability and Future Society”, the speakers introduced their sustainability initiatives. In the session, participants discussed “actions to realize a sustainable earth” and environmental messages were delivered to inspire participants to take environmental action.



UNEP Programme Development Support Project (GEC’s independent project)

GEC collaborated and coordinated with UNEP-IETC and implemented various events, public relations, and other activities, based on the “Basic Strategy for Plastic Pollution Countermeasures (draft)” In order to promote support for building projects in which UNEP-IETC partners and the UNEP Sustainability Action Team can participate, aiming to solve social issues in developing countries under the UNEP Action Plan (2022-2025).

Support for Digitisation of Regional Industry



GEC has served as secretariat to the Kansai Asia Environmental and Energy Saving Business Promotion Forum (Team E-Kansai) since May 2013. Building on Team E-Kansai initiatives thus far, among the regional DX support activity types, the “Cyber security measures expansion type” was selected in FY2023 subsidised by METI.

In the regional DX promotion community “Environmental Business DX Promotion Forum”, this project was led by a representative organization (GEC) and cybersecurity experts in FY2023 to provide companion support for cybersecurity measures for DX in the environmental sector.

• **Project Details**

GEC commissioned experts with deep knowledge of cyber security to promote the following initiatives at four Team E-Kansai member companies.

- 1) Identification of security issues and analysis of the social impact of remote environment monitoring and management control utilizing IoT/ICT, etc.

- 2) Diagnosis of vulnerabilities associated with remote monitoring and management control, etc.
- 3) Information leakage countermeasures for remote monitoring and management control, etc.
- 4) Support for the formulation and expansion of cyber security measures for the target regional companies

Promotion of the 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 accumulated 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) Offering seminars and the Asia Regional Sessions in Shiga prefecture, (2) Participating in business exhibitions in Japan, (3) Holding the business matching on water treatment in Vietnam, (4) Study on identifying technological needs and issues related to the water environment in the Asian region, (5) Organizing the business matching with IT vendors and Forum members, and (6) Creating promotion videos.

(1) Seminars and the Asia Regional Sessions in Shiga Prefecture

The Shiga Water Environment Business Seminar and the Asia Regional Sessions were held, aimed at sharing and discussing information useful for supporting Forum members’ overseas expansion.

(2) Participating in Business Exhibitions in Japan

To attract new Forum members and promote sales by members through introducing the activities of the Forum, GEC supported Team Water Shiga’s booth at ‘Pan-Exhibition for Wash and Clean 2023’ and ‘Inter Aqua 2024’, which is domestic exhibitions related to manufacturing and the water environment. During the exhibition, activities of the Forum such as the JICA project at Katt Ba Island in Vietnam were introduced.



The booth at ‘Inter Aqua 2024’

(3) Business Matching on Water Treatment in Vietnam

The business matching seminar between Forum members and Vietnamese companies under the Vietnam Beer, Alcohol and Beverage Association (VBA) was held in Ho Chi Minh City, Viet Nam, with the aim of contributing to developing projects and expanding individual businesses.



Business matching in Vietnam



Presentation by Shiga Prefecture and Forum members at a seminar (Inter Aqua2024)

(4) Study on the Identification of Water Environment Related Needs and Issues in the Asian Region

Considering the needs of Team Water Shiga members, surveys were conducted in Indonesia as priority countries.

Technical needs and issues related to the water environment were identified through site visits and interviews with relevant authorities, including local government agencies and industrial wastewater treatment facilities. Details regarding the investigation are outlined below.

Period:	January 2024
Country/Region:	Indonesia (West Java)
Main Destinations:	<ul style="list-style-type: none"> • Department of Environment and Department of Marine and Fisheries of West Java Province • Industrial Wastewater Treatment Facility of the confectionery factory and the textile factory • Public and private aquaculture-related facilities
Objective:	Research on technology needs, challenges, trends in regulation and policy etc. related to water environment and the possibility of structuring projects to improve water quality in aquaculture



Site visits to water treatment facilities at the textile factory in Indonesia



Meeting with Department of Marine and Fisheries of West Java Province

(5) Business Matching with IT Vendors and Forum Members

To support the overseas expansion of Forum members using digital technology, matching sessions with IT vendors were organised online.

(6) Creating Promotion Videos

Promotion videos were produced to introduce specific overseas development initiatives and success stories of Forum members and to encourage other Forum members to expand their business overseas.

Creation of Content for the Dissemination of Advanced Environmental and Energy Technologies at Expo 2025 Osaka, Kansai

7
AFFORDABLE AND CLEAN ENERGY

8
DECENT WORK AND ECONOMIC GROWTH

9
INDUSTRY, INNOVATION AND INFRASTRUCTURE

11
SUSTAINABLE CITIES AND COMMUNITIES

12
RESPONSIBLE CONSUMPTION AND PRODUCTION

13
CLIMATE ACTION

14
LIFE BELOW WATER

15
LIFE ON LAND

17
PARTNERSHIPS FOR THE GOALS

GEC, in collaboration with production company TTDesign, created video contents to introduce advanced environmental and energy technologies that will contribute to achieving long-term targets for decarbonization and marine plastics measures in the Osaka region, as well as a vision of a future society in which these technologies are widely used. These videos will be disseminated both inside and outside the Expo 2025 Osaka, Kansai.



Video showing decarbonisation technologies



Video showing marine plastics control technologies

Model Project for Improving Water Environment in Asia



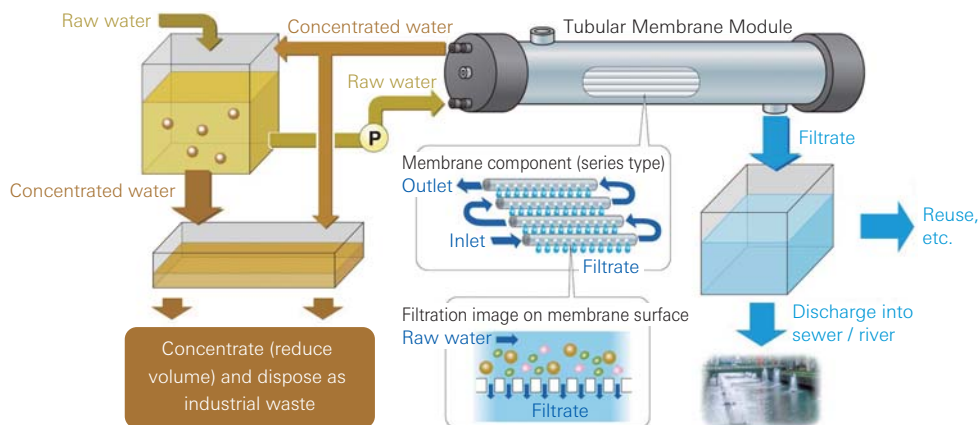
The “Project to reduce volume and promote reuse of water by membrane treatment of high-concentration oil-containing wastewater, Vietnam”. consisted of GEC, DAICEN MEMBRANE-SYSTEMS Ltd., and Osaka Institute of Technology financed by MOEJ.

The tubular membrane module is used to separate oil-containing wastewater from metal processing / metal treatment factories, into highly concentrated wastewater and reusable water.

In FY2023, our project team conducted a preliminary survey in preparation for a demonstration test, including water quality surveys at factories targeted for demonstration tests, collected information on waste fluids, built relationships with government and research institutions, and re-examined plans to commercialize this technology in Vietnam.

Implementation Systems	
Japan side	<ul style="list-style-type: none"> • Global Environment Centre Foundation(GEC) • DAICEN MEMBRANE-SYSTEMS Ltd. • Osaka Institute of Technology
Vietnam side	<ul style="list-style-type: none"> • Institute of Environmental Technology, Vietnam Academy of Science and Technology (VAST-IET) • Vietnam-Japan Institute of Advance Technology (VJIAT), National University of Civil Engineering

Systematic Diagram on Tubular Membrane Module



Hearing on waste liquid



Project meeting with Hanoi University of Civil Engineering

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



The 24th Tripartite Environment Ministers Meeting among China, Japan and Korea (TEMM24) was physically held on 4 November 2023 in Nagoya, Japan. GEC participated in the TEMM24. At the TEMM24, three Environmental Ministers exchanged their perspectives related to their environmental policies, the actions to address global and regional environmental problems, and the progress of the Tripartite Joint Action Plan (TJAP) 2021-2025 updated and adopted at the TEMM22 held in 2021.

In addition, GEC, as a Japanese implementing agency in charge of the Tripartite Environmental Pollution Prevention and Control Technology Cooperation Network Information Platform, collaborated with Chinese and Korean implementation agencies to operate and maintain the platform, and worked to consider the updated information related to environmental technologies posted on the web-platform.

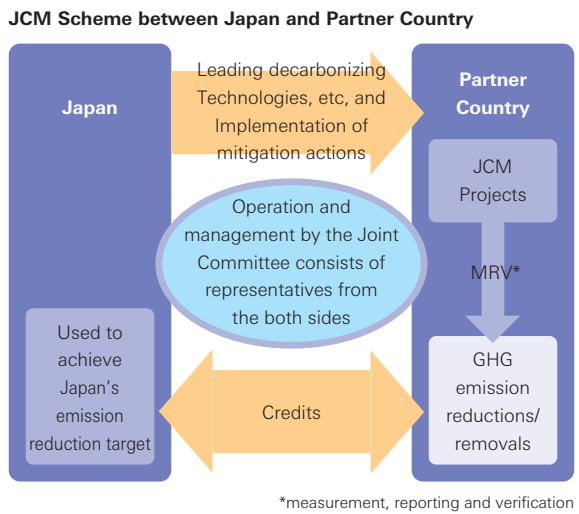


Signing Ceremony of the Joint Communiqué at TEMM24

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 decarbonising technologies, products, systems, services, and infrastructure as well as the implementation of mitigation actions, and contributes to sustainable development in developing countries. It quantitatively evaluates contributions to GHG emission reductions or removals by Japan 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 removal. As of April 2024, the following 29 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, the Philippines, Senegal, Tunisia, Azerbaijan, Moldova, Georgia, Sri Lanka, Uzbekistan, Papua New Guinea, United Arab Emirates, Kyrgyz, Kazakhstan and Ukraine.



Financing Programme for JCM Model Projects



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

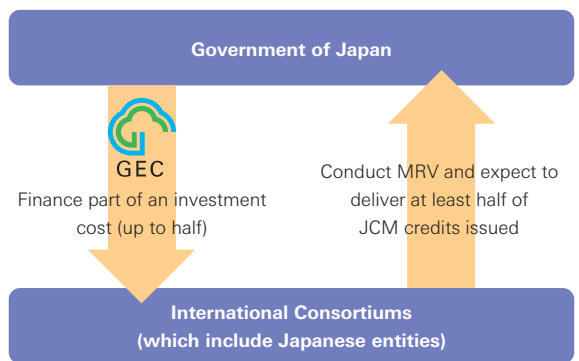
As for the Financing Programme for JCM Model Projects, GEC has played the role since 2014.

The purpose of this programme is to financially support the implementation of projects that reduce GHG emissions by utilising leading decarbonising technologies in developing countries, and in return, to seek to acquire JCM credits towards achieving Japan’s GHG emission reduction target.

The total number of JCM Model Projects reached 245, including those selected in FY2023. The total expected reduction is 2,656,126tCO₂/year. Of these, 168 projects have started operations and are thus contributing to the reduction of GHG emissions.

Each year, GEC calls for, reviews

JCM Model Projects by MOE



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

and selects project proposals for the financing programme, and manages the selected projects. In FY2023, GEC held open calls for proposals from April through November and selected 22 projects in total in consultation with the MOEJ, as listed in the table below.

JCM Model Projects Selected in FY2023

No.	Partner Country	Representative Participant	Title
1	Mexico	BOT Lease Co., Ltd.	Introduction of 0.5MW Rooftop Solar Power System to Automotive Parts Factory (JCM Eco Lease Scheme)
2	Philippines	Global Engineering Co., Ltd.	Introduction of 6MW Power Generation System by Waste Heat Recovery for Cement Plant
3	Philippines	Kyuden International Corporation	27MW Solar Power Project in Dagohoy, Bohol Island
4	Philippines	Tokyo Century Corporation	Introduction of 1.2MW Rooftop Solar Power System to Electronic Equipment Assembly Factory (JCM Eco Lease Scheme)
5	Indonesia	AURA Green Energy Co.,Ltd	12MW Biomass Power Plant Project in Aceh Province, Sumatera
6	Indonesia	AGC Inc.	Improvement of Combustion Method and Furnace Shapes in Flat Glass Production Melting Furnace
7	Indonesia	Alamport Inc.	Introduction of 3MW Rooftop Solar Power System to Paper Factory in Java Island
8	Chile	Farmland Co., Ltd.	26.3MW Solar Power and 48MWh Storage Battery Project Utilizing Farmland in the Metropolitan Area and O'Higgins Region
9	Chile	Sojitz Corporation	Introduction of 196MWh BESS in Huatacondo PV Plant in Tarapaca Region
10	Philippines	Kanematsu Corporation	11.3MW Mini Hydro Power Plant in Tumaui
11	Philippines	Kyuden International Corporation	10MW Solar Power Project in San Jose, Luzon Island
12	Philippines	Tokyo Century Corporation	7MW Solar Power Project in Collaboration with Power-supply Company
13	Sri Lanka	Shibata Corporation Co., Ltd.	13.5MW Solar Power Project in Kebithigollewa, North Central Province
14	Vietnam	erex Co.,Ltd	50MW Biomass Power Project in Tuyen Quang Province
15	Vietnam	erex Co.,Ltd	50MW Biomass Power Project in Yen Bai Province
16	Vietnam	DAIICHI JITSUGYO CO., LTD.	Introduction of Biomass Co-generation System to Food Factory in Bien Hoa, Dong Nai Province
17	Vietnam	The Kansai Electric Power Company, Incorporated	Energy Supply Project by 15MW Rooftop Solar Power System to Factories
18	Vietnam	Marubeni Corporation	Introduction of 4.1MW Rooftop Solar Power System to Medical Equipment, Food, and Automobile Parts Factories
19	Vietnam	Tokyo Century Corporation	Introduction of 1.9MW Rooftop Solar Power System to Textile and Chemical Products Factories
20	Vietnam	The Kansai Electric Power Company, Incorporated	Energy Supply Project by 1.25MW Rooftop Solar Power System to Plastics Factory
21	Tunisia	Eurus Energy Holdings Corporation	50MW Solar Power Project in Tozeur Region
22	Tunisia	Eurus Energy Holdings Corporation	50MW Solar Power Project in Sidi Bouzid Region

As of April 2024, GEC has selected a total of 245 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 FY2023



Vietnam

- Introduction of 0.4MW Rooftop Solar Power System to Aluminum Wheel Manufacturing Factory (JCM Eco Lease Scheme)
- Sumitomo Mitsui Trust
Panasonic Finance Co., Ltd.



Indonesia

- Introduction of High-efficiency Once-through Boiler System to Chemical Factory
- DIC Corporation



Thailand

- Energy Supply Project by 2.9MW Rooftop Solar Power System to Metal Factories and Refrigerating Warehouse
- Osaka Gas Co., Ltd.



Thailand

- Energy Supply Project by 0.9MW Rooftop Solar Power System to Metal Recycling and Automotive Parts Factories
- Marubeni Corporation



Philippines

- 14.5MW Mini Hydro Power Plant Project in Siguil River in Mindanao
- Toyota Tsusho Corporation



Lao PDR

- Introduction of Amorphous High Efficiency Transformers in Power Grid II
- Yuko Keiso Co., Ltd.



Chile

- Energy Supply Project by 2.0MW Rooftop Solar Power System to Industrial Plastic Plant in Renca, Santiago Metropolitan Region
- Asian Gateway Corporation



Vietnam

- Waste to Energy Project in Bac Ninh Province
- JFE Engineering Corporation



Indonesia

- Introduction of 3.3MW Rooftop Solar Power System in Woodworking Factories
- Sumitomo Forestry Co., Ltd.



Vietnam

- Introduction of 2.5MW Rooftop Solar Power System to Food Factory and Garment Factory
- The Kansai Electric Power Company, Incorporated



Vietnam

- Introduction of High Efficiency Chiller and High Efficiency LED Lighting with Dimming Function to Shopping Center
- Tokyu Corporation



Chile

- 9MW Solar Power Project in San Antonio, Valparaiso Region
- Eurus Energy Holdings Corporation



Chile

- 9MW Solar Power Project in Yungay, Biobio Region
- Eurus Energy Holdings Corporation



Chile

- 3MW Solar Power Project Utilizing Farmland in Maule Region
- FARMLAND Co., Ltd.



Thailand

- Introduction of High Efficiency Boiler, High Efficiency Chiller, and Solar PV System to Textile Factory and Food Factory
- The Kansai Electric Power Company, Incorporated



Thailand

- Introduction of 2MW Rooftop Solar Power System to Non-ferrous Metal Factory
- The Kansai Electric Power Company, Incorporated



Indonesia

- 6MW Mini Hydro Power Plant Project in West Pasaman, West Sumatra
- NiX JAPAN Co., Ltd.



Philippines

- 29MW Binary Power Generation Project at Palayan Geothermal Power Plant
- Mitsubishi Heavy Industries, Ltd.



Saudi Arabia

- 400MW Solar Power Project in Rabigh Region
- Marubeni Corporation



Thailand

- Introduction of 18.9MW Rooftop and Floating Solar Power System to Factories
- Shizen Energy Inc.



Chile

- 3.4MW Rice Husk Power Generation Project in Maule
- Asian Gateway Corporation



Indonesia

- 10MW Hydro Power Project in Bengkulu Province
- Voith Fuji Hydro K. K.



Indonesia

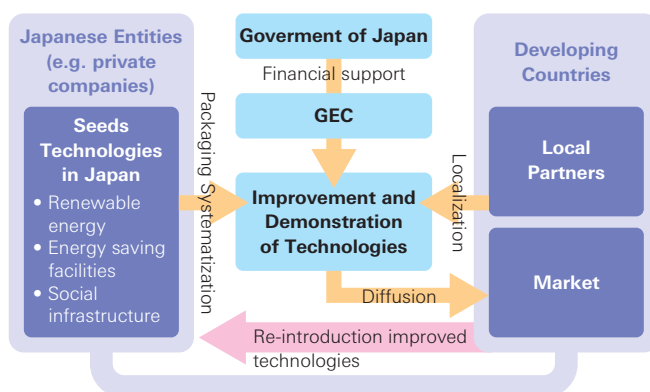
- 6MW Hydro Power Project in West Sumatera Province
- Voith Fuji Hydro K. K.

Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation in FY2023



On behalf of the Ministry of the Environment, Japan (MOEJ), GEC began implementing the 'Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation' in 2019.

This financial support programme aims to create innovations that are beneficial to both Japan and developing countries through collaboration (co-innovation). The goal is to create a low-carbon society by renovating and disseminating high-quality low-carbon technologies (including decarbonising technologies) and products, which are Japan's strengths. This is achieved by systematising and packaging multiple technologies, encouraging their adoption, and consequently bringing benefits to the developers in Japan.



GEC's Activities in FY2023

The project period under the programme is basically three years, but the programme itself is to be implemented over a period of five years. Since 2023 is the final year of the five-year period, there was no call for new projects, and the ongoing projects were managed and operated.

- Eight projects were selected in the 2020, 2021 and 2022 fiscal years. Of these, five projects, selected in the 2020 and 2021 fiscal years, were in their final year and their results were reported to the committee in February, where they received evaluation and guidance for future commercialisation. For the remaining three projects, progress was reported to the committee in February as an interim assessment, and the committee provided guidance on how to proceed with the projects in the future. Final inspection: GEC conducted a review of the final reports (including the evaluation of final reports and site inspections) and disbursement of financial support in the 2023 fiscal year for the five projects that were in their final year. As a result, three projects were carried forward to the next fiscal year.



No.21-1: Low-carbon cold chain logistics model demonstration project using high performance reefer containers



No.21-2: Demonstration project of the stylish and high-efficiency BIPV system to the high-rise building in Thailand

Project Selected in FY2022 (1 Projects)

No.	Country	Project Participants	Title
22-1	Maldives	Hitachi Zosen Corporation	Demonstration of decarbonized seawater desalination system using solar power generation and NAS battery in Maldives

Projects Selected in FY2021 (3 Projects)

No.	Country	Project Participants	Title
21-1	Viet Nam, Thailand	Sumisho Global Logistics Co., Ltd.	Low-carbon cold chain logistics model demonstration project using high performance reefer containers
21-2	Thailand, Viet Nam	Kaneka Corporation	Demonstration project of the stylish and high-efficiency BIPV system to the high-rise building in Thailand
21-3	Malaysia	Sumitomo Heavy Industries, Ltd.	Development and Demonstration of a CFB (Circulating Fluidized Bed) Boiler utilizing palm residue as a biomass fuel in Southeast Asia

Projects Selected in FY2020 (4 Projects)

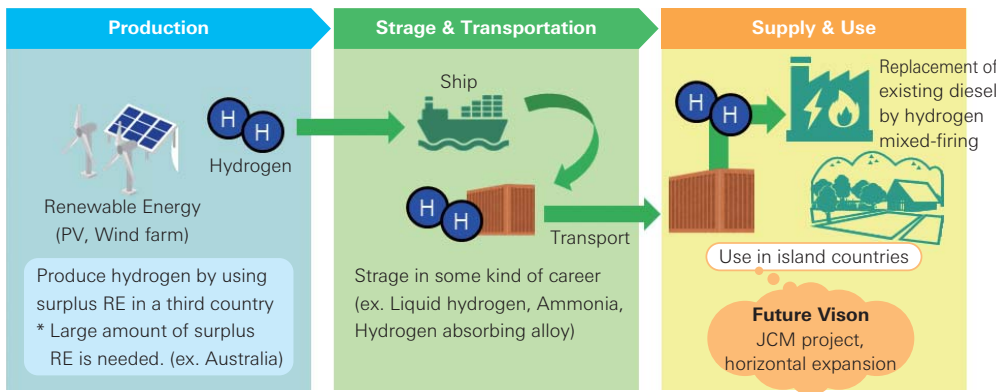
No.	Country	Project Participants	Title
20-1	Mongolia	Zeneral Heatpump Industry Co.,Ltd.	The demonstration of a hybrid source (ground source / solar heat) heat pump heating system for extremely cold regions

No.	Country	Project Participants	Title
20-2	Indonesia, Vietnam	Fukushima Galilei Co.Ltd.	Demonstration of High-performance ventilation, air conditioning, and showcase combined control to Food Supermarket in Asia
20-3	Thailand	Hasegawa Electric Industries Company Limited	Introduction and demonstration of load-linked flow control system technology for existing water-cooled air conditioning systems in hospitals and other buildings in Thailand
20-4	Indonesia	Mikawa Environmental Technology Inc.	Demonstration of GHG-free production of functional activated carbon using coconut-shell by integrating carbonization and activation process

Pilot Project for Comprehensive Support throughout the Whole Hydrogen Supply Chain Abroad in FY 2023



This programme started in 2021 to provide financial support to projects that aim to produce hydrogen in a country with abundant renewable energy, and transport and utilise it in a small island country. The goal of this pilot project is to advance utilisation of hydrogen made with renewable energy while contributing to Japan’s GHG emission reduction goals.



GEC’s Activities in FY2023

The programme was planned to be implemented over a period of three years. Since 2023 marked the final year of this period, a call for new project proposals was not issued. Instead, the focus was on managing and operating the ongoing projects.

- Project management: GEC oversaw the progress of the projects that had been selected in fiscal 2021 and 2022 through monthly reports and meetings, and provided suggestions for improvement when needed.
- Intermediate evaluation: Three projects that had been selected in FY2021 and 2022 were evaluated by the evaluation committee of experts based on an intermediate progress report submitted by each project participant in February.
- Three projects were carried forward to the next fiscal year.

Project Selected in FY2022 (1 Project)

Countries	Implementer	Project Title
New Zealand, The Republic of Fiji	Obayashi Corporation	Project for transportation of green hydrogen derived from geothermal power generation in New Zealand to Fiji and utilization of a dual fuel generator

Projects Selected in FY2021 (2 Projects)

Countries	Implementer	Project Title
Australia, Indonesia	Marubeni Corporation	Production of economical green hydrogen in South Australia, transportation of hydrogen by metal hydride to Indonesia and utilization of hydrogen through fuel cell in industrial town in Indonesia
Australia, The Republic of Palau	Sojitz Corporation	Demonstration Project on Green Hydrogen Production in Australia, its Transportation to Palau and Utilization by Fuel Cell and Fuel Cell Boat



No.20-1: Production of economical green hydrogen in South Australia, transportation of hydrogen by metal hydride to Indonesia and utilization of hydrogen through fuel cell in an industrial town in Indonesia

Demonstration Programme for Application of New Decarbonizing Technology in FY2023



In this project, demonstration projects will be implemented to promote the introduction of advanced decarbonization technologies (e.g., hydrogen produced with renewable energy) that have not yet been implemented as JCM projects in the JCM Partner Countries, and conducted Measurement, Reporting and Verification (MRV) of GHG emission reductions. In addition, during or after the demonstration period, the project participant will aim to issue JCM credits for the GHG emission reductions in the country where the demonstration project takes place. Furthermore, within a few years after the completion of the project, next commercial-based projects are expected to be submitted to the “Financing Programme for JCM Model Projects”.

In this first year of the project, after the screening committee consisting of experts approved the screening criteria for adoption, the grant rules were established, and two rounds of call for proposals and evaluation by the screening committee were conducted. After the second round of call for proposals, one candidate was selected for adoption, and after the joint committee of the partner country confirmed that there were no objections to the project outline (Project Idea Note), the project was adopted.

New Project Selected in FY2023 (1 Projects)

No.	Country	Project Participants	Title
23-1	Mongolia	Overseas Environmental Cooperation Center	Demonstration project for green hydrogen production by wind power generation and heat supply using hydrogen boiler

Financing Programme for the Joint Crediting Mechanism (JCM) F-gas Recovery Destruction Model Project in FY2023

This Programme aims to reduce GHG emissions by recovering and destroying hydrofluorocarbons (HFCs) from used machinery, etc., preventing their release into the atmosphere, on the premise that the JCM scheme will be utilised. The Model Projects aim to contribute to Japan’s emission reduction targets by acquiring the GHG emission reductions as JCM credits. This programme was directly executed by the Ministry of the Environment of Japan until fiscal year 2022 and since fiscal year 2023, GEC has been the executing organisation for the financial support programme,

GEC opened a call for proposals for projects eligible for the financial support from June 2 to November 30 and conducted document reviews and hearing screening of the applications in order to select projects in consultation with the MOEJ. After the selected projects received final decisions on financing, GEC managed the progress of the projects and conducted administrative procedures for execution and management of financial support.

In FY 2023, GEC engaged in the following activities.

- GEC held open calls for proposals and selected new project in consultation with the MOEJ and the evaluation committee of experts.
- Call for proposals was announced on GEC website.
- The first round of applications was accepted from June 2 to July 3, and the review process began on July 3.
- Based on the results of the screening, two projects were selected and announced after consultations with the MOEJ.
- After the selection, the application documents submitted by the project implementers were reviewed, and a final decision on financing was made for each project.

- The progress of the selected projects was monitored through periodic meetings and reports submitted by the project implementers

Projects Selected During the Fiscal Year 2023 (2 Projects)

Countries	Implementer	Project Title
Philippines	Marubeni Corporation	Development of a Fluorocarbon Collection and Destruction Model Project in Metro Manila, Philippines Utilizing Mixed Combustion Technologies
Vietnam	Marubeni Corporation	Development of Fluorocarbons collection scheme and installation of mixed combustion decomposition facility in Vietnam

Support for the Efficient Implementation of MRV Activities, Awareness Raising and Promotion for JCM



GEC was commissioned in April 2023 by the MOEJ to support the efficient implementation of MRV activities related to the Financing Programme for JCM Model Projects, and to promote understanding and participation in the JCM scheme domestically and internationally.

Support for Efficient Implementation of MRV for JCM

This task involves supporting the process of MRV activities such as JCM project registration and credit issuance of JCM Model Projects. In fiscal 2023, GEC supported 8 project registrations and 13 credit issuances for projects of which facilities were installed in the JCM Model Projects in coordination with the MOEJ, related institutions, and partner countries.

In FY2023, the Joint Committee (JC) with partner countries, which consist of government members of both Japan and the partner country were held with Partner countries and GEC participated the JCs. Since government officials in charge of the JCM came to Japan invited by Ministry of the Environment Japan in February 2024, GEC held face to face bilateral meeting with 21 partner countries and gave presentations on the JCM Model Projects and shared the latest information based on accumulated knowledge and experience as the implementing organisation of the JCM Model Projects.

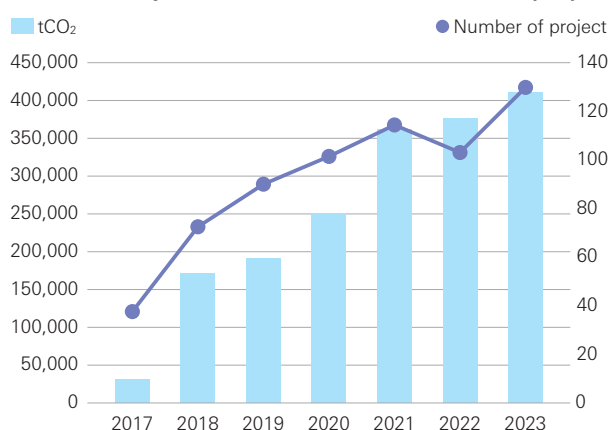
GEC held a webinar for the representative participants together with the MOEJ, the Institute for Global Environmental Strategies (IGES) and Overseas Environmental Cooperation Centre (OECC) to explain the procedures of MRV activities after completion of installation of the facilities, focusing on the schedule and points to be noted during MRV activities.

Annual Report of JCM Model Project

After completion of facility installation, annual reports of JCM Model Project are submitted by representative participants to report the actual GHG emission reductions. Representative participants also report the reason if the amount of actual GHG emission reductions did not reach the expected amount.

The following table shows the number of project and the actual GHG emission reductions reported

JCM Model Project GHG Emission Reductions (GHG ER) per year



by the annual report of JCM Model Project from 2017 to 2023. The cumulative amount of GHG emission reductions from 2017 is 1,799,225 ton-CO₂ equivalent.

Year	2017	2018	2019	2020	2021	2022	2023	Total
Number of project	39	74	91	102	117	106	130	—
GHG emission reductions [ton-CO ₂ eq]	35,688	172,009	190,776	250,752	363,190	375,143	411,667	1,799,225

Awareness-raising Activities for JCM

(1) Website and Social Media Platform

• JCM Website by GEC

New additions to the website include a webpage for each JCM Model Project that were newly selected for fiscal 2023, and the webpage for existing projects was updated.

In addition, a new webpage was added for case examples about contributions to SDGs through Financing Programme for JCM Model Projects, as well as Demonstration Project for Application of New Decarbonization Technology. Lastly, a webpage for the JCM brochure was updated to attract more viewers.

• SNS

124 posts were made on X to disseminate information regarding JCM news and events, which resulted in an increase in the number of followers by 28, totalling 1,074 as of March 2024.

(2) JCM Seminars in JCM Partner Countries

A series of webinars were held for the audiences in Tunisia and Sri Lanka. The webinars were participated by government officials and business leaders from Japan and the above-mentioned countries. It aimed at sharing an overview and progress of the JCM Financing Programme, and project development and scaling up those future projects.

With this year's theme 'Contribution to GHG Emission Reductions through the JCM', the webinars introduced Financing Programme for JCM Model Projects as well as good examples of the projects.

Furthermore, individual meetings were held with those who expressed interest, where they received guidance directly from GEC.

• JCM Webinar for Tunisia

A webinar was held on 1 November 2023 with 178 attendees. GEC received requests for 97 individual meetings where they provided guidance on JCM.

• JCM Webinar for Sri Lanka

A webinar was held on 16 February 2024 with 104 attendees. GEC also received 63 requests for individual online meetings.



In addition, GEC joined JCM seminars organised by other organisations for Moldova, Bhutan, Georgia, Papua New Guinea, Saudi Arabia and Senegal, to discuss the JCM Financing Programme, JCM Global Match as well as to hold consultation meetings.

(3) Presentation on JCM at International Conferences

- COP28

At a side-event organised by MOEJ, IGES, A6IP Center and GEC on 11 December 2023, on the theme of “Advancing the Article 6 Implementation Partnership (A6IP) towards high integrity carbon markets”, representatives from GEC acted as a moderator and assisted the logistics and public relations.

(4) JCM Symposium in Japan

To further promote the JCM Financing Programme, GEC held an online JCM symposium on 13 March 2024 with 276 attendees.

During the symposium, as initiatives by the Japanese government, MOEJ gave an overview of the JCM Financing Programme in the fiscal year 2024, the Ministry of Economy, Trade and Industry explained Private-Sector JCM Projects, the Ministry of Agriculture, Forestry and Fisheries gave a presentation about the JCM initiatives in the agricultural field. In addition, as the progress and good examples of Financing Programme for JCM Model Projects, GEC shared best practices for successful projects based on actual examples of the JCM projects, as well as activities that pertain to the JCM gender guidelines and SDGs in the JCM projects, and presentations on good examples of JCM projects by private sector participants.



Promotional Activities for JCM

(1) Identification of potential projects, challenges, and solutions

- Identification of Large Scale Projects

In order to identify large and effective JCM projects, GEC held consultation meetings with companies that have the ability to develop large scale JCM projects and showed interest in JCM in the past, as well as presentation meetings with business associations. This year, three industrial sectors were selected as potential sectors for large-scale projects, which include trading companies, engineering firms as well as manufacturers for incinerator (i.e., waste to energy). Through the meetings, we received valuable comments and feedback.

- Surveys

Two surveys were conducted to identify projects that were likely to be submitted for the JCM Model Project in the next few years. First survey was made in August 2023 while second one was in February 2024. The feedback received will be used not only to identify future potential projects, but also to improve the way the JCM is operated.

- JCM Consultation Meetings

Throughout the year GEC met with companies who were preparing to submit a JCM proposal. The number of these meetings was 165 in 2023, which was slightly less than that of the previous years.

(2) Renewal of JCM Global Match

GEC continued to improve the user interface of the JCM Global Match, such as enhancement of the browsing function and specialty editing function. GEC also strove hard to gain new users by active public relations such as introduction of the platform in seminars, and the number of users reached 954 as of March 2024.



Top page of the new JCM Global Match

(3) Enhancement of Relationship with Financial Institutions

It is essential that financial institutions provide funds to JCM Model Projects. It should be also noted that they could let their borrowers set up international consortiums. From this point of view, GEC has been enhancing its approach to enhance relationship with financial institutions by promoting awareness of JCM, and sharing information of business partners. Major multilateral development banks and international and Japanese financial institutions are paying more attention to new partner countries and Private Sector JCM. GEC will keep enhancing the relationships with more financial institutions.

(4) Survey on Contribution to SDGs

In order to assess the effectiveness of the “Guideline on Gender Equality for the JCM”, a survey was sent to partner participants of the JCM projects selected up to FY2023. The results showed that most of the implementers were aware of the gender issues and had been tackling such issues more actively than the Japanese project participants regardless of the selected year of the project.

In addition, a survey covered their activities on SDGs through the JCM projects. The survey result showed that their activities were wide-ranged and their attitude was very positive and active. GEC also conducted online interviews with those whose activities were unique and notable, to gain additional information to showcase their projects on the GEC’s website as excellent examples to follow.

GEC will conduct a survey with partner participants again in FY2024 and will share more good examples of the activities contributing to SDGs through the JCM projects.

(5) Cooperative Approach with Singaporean Entities for JCM Projects in ASEAN Countries

In order to identify potential JCM projects with Singaporean entities in ASEAN countries, a list of 40 projects, where Singaporean entities involved, was evaluated as follows.

By technology, out of 40 projects, both of ammonia and hydrogen projects are 11 since Singapore depends on import of LNG for power generation and it is required to replace LNG by decarbonated fuel. There are also some fuel projects for shipping as well as aviation because Singapore is aiming to be a logistic hub in Asia. By country, Japan is involved in 16 projects, as it is expected Japan as technical partner for decarbonation.



Commissioned by the Ministry of the Environment, Japan (MOEJ), GEC provided support on the formulation of technical assistance (TA) projects to be implemented through the Climate Technology Centre and Network (CTCN) established under the UNFCCC, to promote the transfer and deployment of Japanese advanced climate (decarbonization) technologies owned by Japanese entities and their overseas subsidiaries.

Under this project, GEC undertook information dissemination activities related to CTCN and its functions through GEC website with online brochures and email newsletters. In parallel, GEC undertook individual interviews with Japanese private sector companies and other relevant entities interested in CTCN TA projects. In addition, GEC provided advice to some entities who had already begun their preparatory work to develop CTCN TA projects. The advice from GEC was related to the drafting of CTCN request forms as well as the technical assistance implementation structures and the roles of experts.

Through these information dissemination activities and individual interviews, two potential

TA projects were identified: Environmentally Sustainable Palm Oil Industry in Indonesia, and Production and Use of Green Hydrogen in India. Since the Indonesian project was considered to be more promising, GEC undertook the following activities:

- Kick-off meeting with the host country's stakeholders
- Development of a draft CTCN request form, through capacity enhancement for the host country.

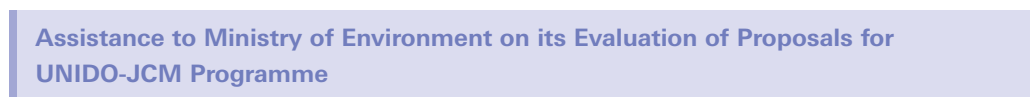
In addition, for the existing potential project developed in the previous year, which was related to the transport sector in Thailand, GEC undertook further follow-up activities after the official submission of the request form from Thai NDE to the CTCN secretariat. However, CTCN denied the request citing incompatibility with its prioritization criteria. After discussion with the stakeholders in both Japan and Thailand, it was decided that it was best to forego further actions on this matter.

Lastly, a roundtable meeting for the Japanese CTCN network members was held in order to share opinions and experiences related to CTCN, as well as to exchange views on the updated CTCN Selection Criteria which was to be discussed and adopted at the upcoming CTCN Advisory Board meeting. The CTCN network member participants were joined by government ministry personnel as well as the current CTCN Advisory Board member, where they had productive conversations.



The Ministry of the Environment, Japan (MOEJ) has been funding the Japan Fund for Joint Crediting Mechanism (JFJCM) established within the ADB since 2014 to accelerate the uptake of advanced decarbonising and low-carbon technologies in developing countries in the Asia and the Pacific region. Commissioned by the MOEJ, GEC provided assistance on the evaluation process for the following projects:

- Disaster Resilient Clean Energy Financing (DRCEF) – Additional Financing (Palau): Application Form
- Energy Efficiency and Renewable Energy Financing Program (Sri Lanka): Initial Project Title and Description (ITD) Form



The Ministry of the Environment, Japan has been funding the UNIDO-JCM Programme, established within UNIDO in 2022 to accelerate the uptake of advanced low-carbon and decarbonising technologies in Africa. Commissioned by the Ministry of the Environment, Japan, GEC provided assistance on the evaluation process for one project:

GEC has provided evaluation assistance. However, the applicant withdrew its application before the Ministry of Environment started its evaluation process.



Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) website was launched in August 2020 by the Ministry of the Environment, Japan as a bilingual online network to publish



JPRSI Solutions Webpage (<https://jprsi.go.jp/en/technology-types/search>)

and share information on environmental technology among ministries, local municipalities, private enterprises, financial institutions, international organisations, and academic experts. Up to this year, 297 entries of the technology developed by JPRSI members have been registered in the platform (in English).

Secretariat Operations of the Joint Committee for JCM

Commissioned by MURC, GEC was engaged in “Consultation services related to individual JCM projects, including the Private-Sector JCM Projects” as part of the “Secretariat operations for the Joint Committee on the Joint Crediting Mechanism for Fiscal Year 2023” implemented by the Ministry of the Environment.

The principal roles of GEC included:

(1) Consultation on the preparation of Project Idea Notes (PINs)

GEC have counselled on inquiries about projects concerning the Private-Sector JCM reached through the JCM website (<https://www.jcm.go.jp>). As of March 25, 2024, 42 cases (58 sessions) were handled. In the course of consultation, GEC provided advice on the preparation of PINs and reviewed the drafts before submitting to the Government of Japan.

(2) Arrangement and assistance for the assessment of PINs by the Government of Japan

In addition to PINs for Private-Sector JCM projects, GEC accepted the submission of PINs for the following government-financing projects to administer completeness check.

- ADB’s JFJCM project: 1 provisional project (in Palau)
- JCM Financing Programme for model project: 27 potential projects
- Demonstration Programme for Application of New Decarbonizing Technology” by the Ministry of the Environment, Japan: 1 provisional project (in Mongolia)

(3) Revision of the Guidance for the Development of Private-Sector JCM Projects

Based on the knowledge developed through the consultations in the 1) and the assessment of PINs in the 2), GEC drafted the revised version of the “Guidance for the Development of Private-Sector JCM Projects” jointly published by the Ministry of the Environment, the Ministry of Economy, Trade and Industry, and the Ministry of Foreign Affairs in March 2023. The following four sections were added in the revision:

- (i) Guidelines and Examples for the Preparation of the PIN
- (ii) Development of Methodologies
- (iii) Demand for Individual Guidelines
- (iv) FAQ

GEC participated in the “Regular Talks on Private-Sector JCM” led by the Ministry of the Environment and the Ministry of Economy, Trade and Industry (the first meeting was held on October 18, 2023, and the second one on January 17, 2024), where the draft was presented to the government. The revised Guidance is available on the website of the Ministry of the Environment.

<https://www.env.go.jp/content/000123179.pdf>

Japan International Cooperation Agency (JICA) Group Training Project



Commissioned by JICA, GEC has carried out the “Knowledge Co-Creation Program” for Municipal Solid Waste Management Practice in English as well as in French.

In FY2023, as a result of the transition of the moderation of Covid-19 measures in Japan, both the English course (A) and the French course (B) were able to be conducted in the conventional style with the content of in Japan programmes. In addition, by taking advantages of the experience and benefits of the distance learning programme that had been provided until the previous fiscal year, the “hybrid” style of the course made it possible to conduct the programme in Japan more effectively, for example, by learning some of the content in advance using distance learning materials before coming to Japan.

The French course was originally planned to have four participants from four countries, but due to political instability in the intended countries, two countries were unable to participate.

We will continue and strengthen the cooperation with the research institutions and other relevant organizations in order to meet the diverse range of needs in developing countries as well as to improve programme contents.

Municipal Solid Waste Management Practice (A), (B)

Training Dates / Participants	Programme
<p><Course A (English)></p> <ul style="list-style-type: none"> Distance learning: 22 May – 27 June 2023 In Japan: 28 June – 1 August 2023 6 participants from 5 countries: Brazil (2), Cuba, Laos, Philippines, Ukraine 	<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> Osaka City Environment Bureau, Kyoto City Environment Policy Bureau, Osaka Metropolitan University, Osaka Environmental Facilities Association, Nantan City Yagi Bioecology Centre, Senri Recycle Plaza, EX Research Institute Ltd., Kokusai Kogyo Co. Ltd., Takakura Environment Research Institute, Kansai Recycling Systems Co., Ltd., Nomura Kohsan Co. Ltd., Kobe Environmental Creation Co., Ltd., Hitachi Zosen Corporation, etc.</p>
<p><Course B (French)></p> <ul style="list-style-type: none"> Distance learning: 22 August – 3 October 2023 In Japan: 4 October – 2 November 2023 2 participants from 2 countries: Djibouti, Gabo 	<p><u>Lectures</u> Waste Management Administration in Japan, Waste Management in Osaka City, Environmental Hygiene in Developing Countries, Introduction of Takakura Composting Method, 3Rs Approach, etc.</p> <p><u>Site Visit</u> Municipal Solid Waste Collection in Osaka City, Bio-gas and Composting Facilities, Resource Recycling Facility, Medical Waste Treatment Plant, Drop-off Collection Station in Kyoto City</p>

Distance learning/ Hybrid programme

Due to the Covid-19 pandemic from 2020, an online programme using the Internet is being implemented to substitute for the training in Japan. Although the program in Japan resumed in the latter half of FY2022, it is being implemented as a hybrid style in which distance learning is conducted prior to the in-Japan programme, including the use of on-demand materials.



Municipal Solid Waste Collection in Osaka City



Participation in Citizen Volunteer Beautification Promotion Activities

GEC Networking Project for Former Training Course Participants



Since FY1998, GEC has established a GEC Overseas Ex-participant 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 website and organising local follow-up seminars.

In order to introduce the latest training materials as much as possible to network members, we have started distributing mainly on-demand training materials (video files) created for JICA programme through SNS.

In FY2023, 6 members from course A (English) and 2 members from course B (French) were newly registered, respectively.



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