

# Global Environment Centre Foundation

Annual Report 2020



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## Introduction

The Global Environment Centre Foundation (GEC) engages in a wide range of activities to promote projects for conserving the global environment, including through international cooperation to provide technical assistance to developing countries and contribution to the fight against global warming, as well as to help achieve the Sustainable Development Goals (SDGs), adopted by the UN General Assembly in September 2015, and reduce greenhouse gas emissions under the Paris Agreement.

In FY2020, our activities to support the United Nations Environment Programme (UNEP) International Environmental Technology Centre (IETC), in line with one of the objectives of the GEC's establishment, included the organisation of an online seminar on plastic waste in collaboration with partners such as the City of Osaka, culminating in the sharing of Osaka Blue Ocean Vision at the G20 Osaka Summit. In an effort to achieve the SDGs, the IETC launched UNEP Sustainability Action, a cross-sectional platform for diverse parties including the UN, governments, businesses and civil society, to encourage sustainable action in daily life. The GEC is committed to working actively with the IETC to roll out this platform both in Japan and overseas.

Elsewhere in the field of international cooperation, our Support for Local Company Innovation Business (a project commissioned by the Kinki Bureau of Economy, Trade and Industry) promoted the transfer of advanced environmental/energy-efficient technologies from Japan to overseas, particularly China and ASEAN countries, leveraging the Kansai Asia Environmental and Energy Saving Business Promotion Forum (Team E-Kansai) as a platform. In particular, our water-related business-matching project, implemented at an industrial park in Đồng Nai Province, Vietnam in collaboration with the Promotion of Water Environment Business project (commissioned by Shiga Prefecture), helped strengthen our efforts for business development and environmental improvement for the future.

With regard to climate action, Prime Minister Suga pledged in October 2020 'carbon neutrality by 2050', thus announcing Japan's commitment to net-zero emissions. With the return of the US to the Paris Agreement in February 2021 and the requirement for raising targets in Nationally Determined Contributions (NDCs) in the run-up to COP26 slated for November 2021, climate action has been accelerating both nationally and internationally, as attested by Japan's raising of its 2030 reduction target to 46% compared with 2013 levels.

In an effort to promote the Joint Crediting Mechanism (JCM), implemented by the Japanese government in coordination with partner countries, the GEC administers the Financing Programme for JCM Model Projects, intended to finance climate action projects in partner countries. While providing assistance in a series of procedures ranging from the registration of JCM projects to the issuance of credit, we have conducted extension and awareness-raising activities on the JCM both in Japan and overseas. Specific activities in FY2020 included the organisation of online seminars in five partner countries under the common theme of 'Utilising JCM during the Covid-19 Period', which attracted a large number of participants. We also manage the Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation, an initiative for collaboration between Japan and developing countries to renovate and demonstrate high-quality decarbonisation technology suited to the characteristics of the implementing country. Thus, the GEC is supporting climate action overseas through active implementation of various JCM-related projects as one of Japan's key interventions to address global warming.

Our training activities on environmental technology included the provision of a waste management technology course as a JICA training project. This course, leveraging our network with local governments and businesses in the Kansai area, was organised as a remote training course for the first time. We also sought to further our international cooperation including on human resource development, by building human networks with JICA training alumni overseas.

The GEC is committed to proactively contributing to the achievement of the SDGs and climate action under the Paris Agreement through closer coordination and cooperation with relevant institutions, and by leveraging our expertise, experience and national/international networks.

The Covid-19 pandemic will surely have a substantial impact on the entire human race and our lifestyles. Even during this unprecedented crisis, we will ensure that our projects make steady progress and will keep working to conserve the sustainable environment of our planet that supports the lives of everyone, keeping in mind the vision of the post-pandemic world.

We would appreciate your continued understanding and support for the GEC's activities.



July 2021

SUZUKI, Naoshi  
President  
Global Environment Centre Foundation

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



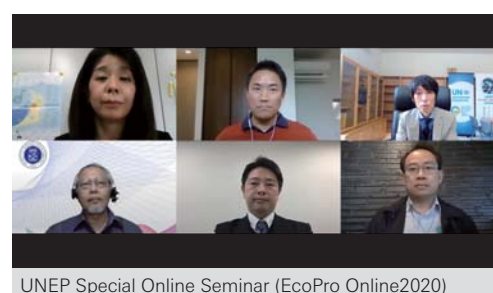
### Support Activities for IETC Collaboration Project (Commissioned by the City of Osaka)

#### (1) UNEP Seminar

The UNEP Special Online Seminar was organised at EcoPro Online2020, to exchange information on the challenges of recycling plastic waste and systems for solving social problems in developing countries, and the future direction was discussed.

##### UNEP Special Online Seminar – Plastic Waste Management in Developing Countries Towards a Circular Economy – Considering Systems for Solving Social Problems

Date:	November 25–28
Organizers:	UNEP-IETC, Osaka City
Participants:	UNEP-IETC, Ministry of Foreign Affairs, Osaka City, GEC, experts from Indonesia and Thailand
Languages:	Japanese and English



#### (2) Needs Survey for Environmental Support in India

The 1st Japan-India Business Online Seminar was successfully organised. A total of 163 participants from local governments and private companies in Japan and India attended the seminar.

##### The 1st Japan-India Business Online Seminar – Promoting Japan-India Partnership in the Fields of Environment and Port & Logistics

Date and time:	February 24, 14:00–17:30
Organizers:	Environment Bureau, Osaka City, Osaka Port and Harbour Bureau, Osaka City, Osaka Port Corporation, and GEC
Support:	Team-E Kansai, Team OSAKA Network, Osaka Port Promotion Association, SCM Programs Private Limited
Languages:	Japanese and English



#### (3) Public Relations and Outreach Activities

UNEP-IETC's new platform, UNEP Sustainability Action (SA), was launched in June 2020. The GEC carried out outreach activities to raise awareness of the platform, including organising the following online events and promoting the UNEP SA's activities through the IETC website and official social networking sites (Twitter, Facebook, Instagram, and YouTube).

• UNEP-IETC × Afu-no-wa Dialogue: September 23	• 1st, 2nd and 3rd UNEP SA Talk Events: December 22, January 31, and March 26	• ECO En-nichi 2020: October 30 – November 30	• One World Festival: February 2–21
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In addition, the IETC leaflet and Annual Report 2020 were prepared.

#### (4) Technology survey on plastic waste reduction

In order to promote the Osaka Blue Ocean Vision Project initiated by the City of Osaka, we conducted a survey and compiled the following:

- A list of advanced technologies (including alternative technologies, IoT adaptive technologies, etc.)
- A summary of the study and strategies for overseas deployment of technologies



UNEP-IETC Leaflet



UNEP-IETC Annual Report 2020



## (5) Working group meetings

In order to promote Osaka City's efforts to reduce plastic waste in cooperation with UNEP Sustainability Action, two working group meetings were held to exchange opinions on the following themes.

### Working Group Meeting 1

**Theme 1: Effective information dissemination to encourage citizens to change their behaviour in consideration of the global environment**

Date and time: 10 March, 3:00 p.m. – 4:30 p.m. (web conference)  
Attendees: 30 persons  
UNEP-IETC, Ministry of the Environment, Ministry of Agriculture, Forestry and Fisheries, Fast Retailing, Seven & i Holdings, Rakuten, Avex Management, Osaka University Graduate School, Osaka City, Osaka Prefecture and GEC



Working Group Meeting 1

### Working Group Meeting 2

**Theme 2: Appropriate technologies and approaches for reducing plastic waste**

Date and time: 16 March, 2:00 p.m. – 3:30 p.m. (web conference)  
Attendees: 11 persons  
Institute of Developing Economies, Japan External Trade Organization (JETRO), Clean Ocean Materials Alliance (CLOMA), Osaka City, Osaka Prefecture, GEC



Working Group Meeting 2

## (6) Campaigning Activities

In collaboration with UNEP Sustainability Action's 'Campaign Activities' project, we created a promotion video (in Japanese and English) for PR for consumers and citizens.

### Project on 'Promotion and Delivery of Environmentally Sound Waste Management Technologies and Methods, and Advisory Support' (commissioned by UNEP-IETC)

#### (1) Building a digital platform for the promotion and implementation of waste management technologies

The GEC prepared a Request for Proposal (RFP) for the 'Waste Management Technology Digital Platform' to develop a platform for promoting and implementing environmentally sound waste management technologies.

#### (2) Online dialogues and support outreach activities for UNEP Sustainability Action

The GEC implemented the following online events and conducted outreach activities through the IETC website and social networking sites (Twitter, Facebook, Instagram and YouTube).


#### UNEP Sustainability Action: First Talk Event

Theme: Actions to be taken now for a sustainable future  
Date: December 22 (recorded the recorded video was released on IETC website)  
Organizer: UNEP-IETC  
Language: Japanese  
Participants: Guest: Mr. Tatsuhiko Seki, Chief Producer, FRaU, Kodansha  
Moderator: Mr. Shunichi Honda, UNEP-IETC  
Speaker: Ministry of Agriculture, Forestry and Fisheries, Seven & i Holdings Co. and EARTH MALL with Rakuten  
Summary: For the first talk event of UNEP Sustainability Action, the Ministry of Agriculture, Forestry and Fisheries, Seven & i Holdings, and EARTH MALL with Rakuten, and the chief producer of FRaU magazine were invited to talk about a sustainable and environmentally friendly future.




UNEP SA: First Talk Event

### UNEP Sustainability Action: Second Talk Event

Theme:	Electronic and electrical wastes (E-waste) and international cooperation	 <p>UNEP SA: Second Talk Event</p>
Date and Time:	January 31, 13:45 – 14:45 (the recorded video was released on “EARTH CAMP” website.)	
Organizer:	UNEP-IETC	
Language:	Japanese and English	
Guest:	Mr. Mago Nagasaka, Artist, MAGO Art & Study Institute Founder	
Interviewer:	Mr. Shunichi Honda, UNEP-IETC	
Summary:	The event was organised as part of the ‘EARTH CAMP’ event. Mr. Nagasaka introduced the situation of Agbogbloshie in Ghana, which is a graveyard for E-waste, the history of his work, and sustainable capitalism.	

### UNEP Sustainability Action: Third Talk Event

Theme:	Achieving SDG12 - Thinking about the future through waste	 <p>UNEP SA: Third Talk Event</p>
Date and Time:	March 26, 19:00 – 19:45	
Organizer:	UNEP-IETC	
Language:	English and Japanese	
Participants:	Mr. Kosaka Daimaou, Comedian, Avex Management Inc. Ms. Risako Tanabe, Talent, Avex Management Inc. Mr. Shunichi Honda, UNEP IETC Ms. Josephine Tan, Penang Green Council (Malaysia) Ms. Aditi Ramola, International Waste Council (India/Denmark) (Facilitator) Ms. Akari Terrell, Buzz Feed Japan	
Summary:	The UNEP-IETC session dialogue was organised in the ‘SDG Global Festival of Action from JAPAN’. Speakers with diverse backgrounds talked about the single issue of waste, and a variety of ideas for solving waste issues which are causing climate change were proposed. The session also successfully conveyed the idea that reducing waste by circulating resources is something that everyone can do to help protect the environment for future generations.	

## Support for Local Company Innovation Business



The 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, METI Kansai commissioned us to undertake the Support for Local Company Innovation Business in FY2020.

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

### (1) Activities in key areas

For this project, we designated China (Guangdong Province), 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 and business matching.



Briefing session for matching aiming to develop overseas markets with trading and consulting companies

### List of activities in FY2020

Japan	• Briefing session for matching aiming to develop overseas markets with trading and consulting companies	28 July 2020	Online
	• 3 consecutive seminars in autumn 1st session: Indonesia and Thailand	29 September 2020	Online

Japan	• 3 consecutive seminars in autumn 2nd session: Vietnam	21 October 2020	Online
	• 3 consecutive seminars in autumn 3rd session: Myanmar	3 December 2019	Online
	• Seminar for Water Business Collaboration in Asia, co-organised with Osaka Chamber of Commerce and Industry	1 December 2020	Online
China	• Web meeting between China Guangdong Science and Technology Agency and METI Kansai	20 July 2020	Online
	• Participation in FBC Guangdong 2021 (Manufacturers' Business Negotiation) in Nanhai	23–24 September 2020	Foshan, Guangdong Province
	• Two Japan–China collaboration projects were selected for the International Science and Technology Cooperation Specialised Project on Guangdong Province 2020–2021	March 2021	Guangdong Province
	• Business matching in the hydrogen field with Chinese companies	8–10 March 2021	Online
Vietnam	• Business matching on water treatment in collaboration with Dong Nai Industrial Park Management Bureau	3 December 2020	Dong Nai province and online



3 consecutive seminars in autumn  
3rd session: Myanmar



Business matching on water treatment in collaboration with Dong Nai Industrial Park Management Bureau

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

### • Provision of information through e-mail magazines

We sent a total of 39 e-mail magazines on a biweekly basis to provide information on specific Team E-Kansai projects (dispatch of missions, organisation of seminars, etc.), surveys and needs related to the environment and energy efficiency in Asia, and applications for projects to be supported by public institutions.

### • Provision of information to full members through newsletters

We sent a total of seven newsletters to our full members to provide information on the needs identified by local coordinators and on upcoming events. We also posted a total of 16 reports from local coordinators, available to full members only.

## 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) support for hosting/offering seminars and section meetings in Shiga prefecture, (2) support for participating in business exhibitions in Japan, (3) business matching on water treatment in Vietnam and the Philippines, (4) study on identifying technological needs and issues related to the water environment in the Asian region, and (5) the production of case study booklets.

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

The Shiga Water Environment Business Seminar was held online in November 2020, and

introduced various efforts by industry-academia-government collaboration aimed at improving water treatment.

Asia Regional Sessions for relevant Forum members were also held online in October 2020 and January 2021 to discuss this year's forum activity plan and how to develop the project.

## (2) Support for participating in business exhibitions in Japan

To secure new Forum members and promote sales by members through introducing the activities of the Forum, the GEC supported Team Water Shiga's booth at InterAqua2021, which is a domestic exhibition related to 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 InterAqua2021

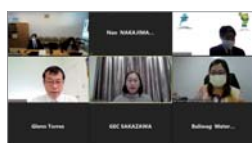
## (3) Business matching on water treatment in Vietnam and the Philippines

Business matching seminars between Japanese companies and organisations related to the water environment in Vietnam and the Philippines were held. Details of the seminars are listed below.

Countries	Seminars	Date	Venue
Vietnam	Business matching on water treatment in collaboration with Dong Nai Industrial Park Management Bureau	3 December 2020	Dong Nai province / online
Philippines	Business Exchange Meeting on Water Technology with Baliwag Water District	24 February 2021	Online



Business matching in Vietnam



Business exchange meeting in the Philippines

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

Considering the needs of the members of Team Water Shiga, desk-based research on water treatment in Vietnam and China, which are priority countries, was conducted.

Reports on water treatment policies and issues were produced by experts with knowledge of the water environment of each country.

## (5) Production of case study booklets

Interviews with six Team Water Shiga companies that have experience in implementing overseas projects related to the water environment by using public funds, such as the Ministry of the Environment, Japan (MOEJ), Japan International Cooperation Agency (JICA), and Shiga Prefecture, were conducted. Based on the interviews, case study booklets, which summarise the company's know-how and key factors for success regarding overseas expansion, were created.

### 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) was not held in 2020 due to the Covid-19 pandemic; the meeting is planned to be held in 2021. Tasks including the support of TEMM and the establishment of a web platform for the Tripartite Cooperation Network for Environmental Pollution Prevention and Control Technologies, contracted by the Overseas Environmental Cooperation Centre, Japan (OECC), were also postponed to 2021.



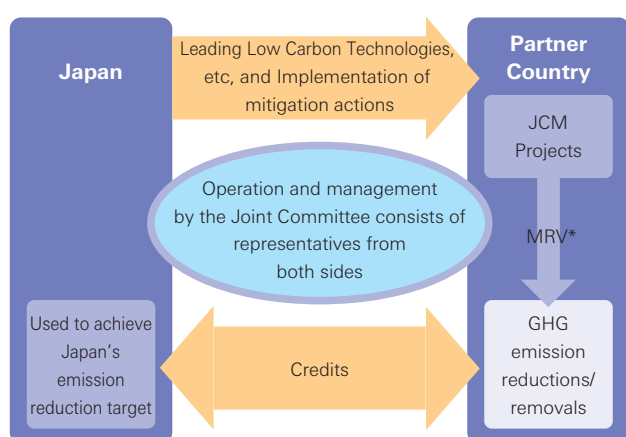
## Technology Transfer for Developing Countries through the Joint Crediting Mechanism

### 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. 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 the Financing Programme for JCM Model Projects to facilitate the development of JCM projects. The GEC is commissioned by the MOEJ to serve as an implementing organisation or secretariat to manage these programmes and activities.

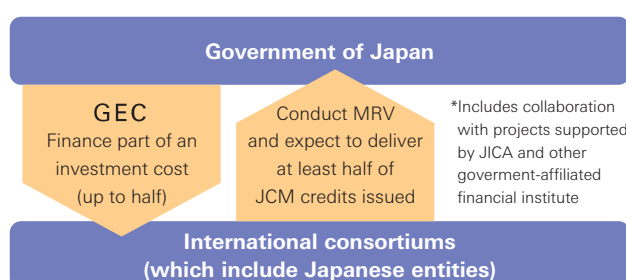
### Financing Programme for JCM Model Projects



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

The purpose of this programme is to financially support the implementation of projects that reduce GHG emissions by utilising leading

### JCM Model Projects by MOE

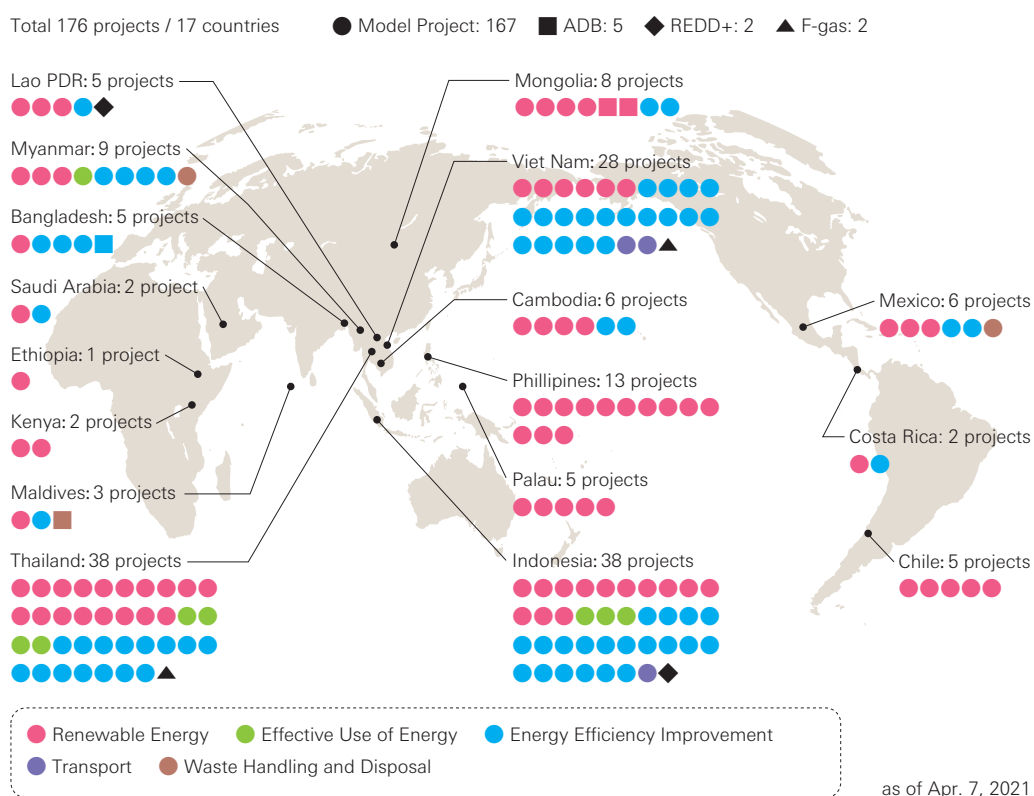


- Scope of the financing: facilities, equipment, vehicles, etc. which reduce CO<sub>2</sub> from fossil fuel combustion as well as construction costs for installing such facilities, etc.
- Eligible projects: those starting installation after the adoption of the financing and finishing installation within three years.

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 167, including those selected in FY2020. The total expected reduction is 1,881,913 tCO<sub>2</sub>. Of these, 114 projects have started operations and are thus contributing to the reduction of CO<sub>2</sub> emissions.

### JCM Financing Programme by MOEJ (FY2013~2020)



Each year, the GEC calls for, reviews and selects project proposals for the financing programme, and manages the selected projects. In FY2020, the GEC held open calls for proposals from April through October and selected 25 projects in total in consultation with the MOEJ, as listed in the table below.

### JCM Model Projects Selected in FY2020

No.	Partner Country	Representative Participant	Title
1	Vietnam	Kanematsu KGK Corp.	57MW Solar Power Project in An Giang Province
2	Vietnam	DAIICHI JITSUGYO CO., LTD.	Introduction of Biomass Co-generation system to Food Factory
3	Vietnam	Marubeni Corporation	Introduction of Biomass Boiler to Soluble Coffee Manufacturing Plant
4	Vietnam	Acecook Co., Ltd.	Introduction of High Efficiency Boiler System to Food Factory
5	Vietnam	Hitachi-Johnson Controls Air Conditioning, Inc	Introduction of High Efficiency Air-conditioning System to Hotel in Ho Chi Minh City
6	Lao PDR	Kayama Kogyo Co., Ltd.	14MW Solar Power Project in Vientiane Province and Borikhamxay Province
7	Indonesia	NiX Co., Ltd.	6MW Mini Hydro Power Plant Project in West Pasaman, West Sumatra
8	Thailand	The Kansai Electric Power Company, Incorporated	Introduction of 8.1MW Rooftop Solar Power System in Motorcycle Factory and Fiber Factory
9	Thailand	The Kansai Electric Power Company, Incorporated	Introduction of Energy Saving Centrifugal Chillers to Machinery Factory

No.	Partner Country	Representative Participant	Title
10	Philippines	Mitsubishi Heavy Industries, Ltd.	29MW Binary Power Generation Project at Palayan Geothermal Power Plant
11	Saudi Arabia	Marubeni Corporation	400MW Solar Power Project in Rabigh Region
12	Chile	FARMLAND Co., Ltd.	3MW Solar Power Project Utilizing Farmland in Valparaiso Region
13	Myanmar	Tokyo Century Corporation	7.3MW Solar Power Project in Mandalay International Airport and Yangon City
14	Thailand	Sumitomo Mitsui Finance and Leasing Company, Limited	Introduction of 5MW Rooftop Solar Power System to Aluminium Building Materials Factory
15	Thailand	The Kansai Electric Power Company, Incorporated	Introduction of 2.6MW Rooftop Solar Power System to Semiconductor Factory
16	Thailand	Inabata Co., Ltd.	2.5MW Solar Power Project with Blockchain Technology in Chiang Mai University Town Community
17	Philippines	Tokyo Century Corporation	Introduction of 2MW Solar Power System to Shopping Mall (JCM Eco Lease Scheme)
18	Indonesia	Voith Fuji Hydro K.K.	5MW Hydro Power Project in Bengkulu Province
19	Myanmar	Yuko Keiso Co., Ltd.	Introduction of Energy Saving Equipment to Complex Buildings of Smart Urban Development Project in Yangon
20	Vietnam	Idemitsu Kosan Co., Ltd.	Introduction of 2MW Solar Power System for Pellet Factory
21	Indonesia	Alamport Inc.	4.2MW Rooftop Solar Power Project to Pharmaceutical Factories, Vehicles Dealers, and Timber Factories
22	Thailand	SHIZUOKA GAS CO., LTD.	Introduction of 2MW Rooftop Solar Power System to University
23	Indonesia	AURA-Green Energy Co., Ltd.	8MW Mini Hydro Power Plant Project in Maluku Province
24	Chile	Sharp Energy Solutions Corporation	34MW Solar Power Project in Nuble Region
25	Thailand	Shizen Energy Inc.	30MW Floating Solar Power Project in Industrial Park

As of March 2021, the GEC has managed a total of 167 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 FY2020

### Indonesia

- 10MW Mini Hydro Power Plant Project in North Sumatra
- Toyo Energy Farm Co., Ltd.
- PT. Citra Multi Energi



### Vietnam

- Introduction of Amorphous High Efficiency Transformers in Southern and Central Power Grids II
- Yuko Keiso Co., Ltd.
- Khanh Hoa PC
- Don Nai PC



### Vietnam

- Energy Saving by Introduction of Inverters for Raw Water Intake Pumps
- Yokohama Water Co., Ltd.
- Thu Duc Water B.O.O Corporation



### Palau

- Introduction of 0.4MW Rooftop Solar Power System in Supermarket
- Sharp Energy Solutions Corporation
- Western Caroline Trading Company, Inc.



### Lao PDR

- 11MW Solar Power Project in Savannakhet Province
- Sharp Energy Solutions Corporation
- Khounxay Construction Development Group Sole Co., Ltd
- Green Energy Laos Development Co., Ltd



### Thailand

- Introduction of 0.8MW Solar Power System and High Efficiency Refrigerator to Food Factory
- Kanematsu KGK Corp.
- Thai Delmar Co., Ltd.



### Mongolia

- Fuel Conversion by Introduction of LPG Boilers to Beverage Factory
- Saisan Co.,Ltd.
- MCS International LLC
- MCS Coca Cola LLC



### Thailand

- Efficiency Improvement of Co-generation System by Installation of Heat Exchanger in Fiber Factory
- Nippon Steel Engineering Co., LTD.
- NS-OG Energy Solutions (Thailand) Ltd.



### Vietnam

- 49MW Solar Power Project in An Giang Province
- Kanematsu KGK Corp.
- Sao Mai Group Corporation



### Vietnam

- 57MW Solar Power Project in An Giang Province
- Kanematsu KGK Corp.
- Sao Mai Group Corporation



### Thailand

- Introduction of Biomass Co-Generation System to Food Factory
- Fuji-Foods Corporation
- Thai Foods International Co., Ltd.

**Consultancy engagement with the MOEJ to support the efficient implementation of MRV activities, to promote understanding and participation in the JCM projects domestically and internationally in fiscal 2020**



The GEC was commissioned in April 2020 by the MOEJ to serve as an implementing organisation to manage 'Consultancy engagement to support the efficient implementation of MRV activities, to promote understanding and participation in the JCM projects domestically and internationally in fiscal 2020'. The GEC supported the efficient implementation of MRV activities related to the Financing Programme for JCM Model Projects, implemented the programme smoothly, and promoted understanding and participation in the JCM scheme domestically and internationally.

### **A** Various support for efficient implementation of MRV activities for the Financing Programme for JCM Model Projects

This task involves supporting the process of MRV activities such as JCM project registration and credit issuance of JCM Model Projects. In fiscal 2020, the GEC supported 17 project registrations and three 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 FY2020, the joint committees with partner countries, which consist of government members of both Japan and the partner country and which implement the sequence of processes, were not held due to the Covid-19 pandemic.



Web meeting with members of Mexico JCM Secretariat

Accordingly, the GEC actively participated in various meetings with partner countries organised by the related institutions and gave presentations on the ongoing and past projects and shared the latest information based on accumulated knowledge and experience as the implementing organisation of the JCM Model Projects.

The 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.

## **B 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 2020, as well as options to search existing projects by GHG emission reduction and JCM credits.

In addition, a new webpage was added for five programmes that are compatible with the JCM and implemented by other organisations, including the Asian Development Bank (ADB), Japan Bank for International Cooperation (JBIC), Japan International Cooperation Agency (JICA), Japan ICT Fund (JICT), and Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN). Lastly, the webpage for the JCM Global Match as well as the JCM brochure were updated to attract more viewers.

#### **• Twitter**

130 posts were made on Twitter to disseminate information regarding JCM news and events, which resulted in an increase in the number of followers by 93, totalling 973 as of March 2021.

### **(2) JCM Seminars in JCM Partner Countries**

A series of webinars was held for the audience in Thailand, Indonesia, Chile, Mexico, and Costa Rica.

With this year's theme 'Utilising JCM during the Covid-19 Period', a wide range of information was discussed by the presenters, including how they navigated through the challenges posed by Covid-19, as well as the role of the JCM in green recovery in JCM partner countries. The Q&A sessions were equally active and fruitful.

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

#### **• JCM Webinar for Thailand**

A webinar was held on 25 August 2020 with 285 attendees. The GEC and presenters also received requests for 12 individual meetings where they provided guidance on JCM.

#### **• JCM Webinar for Indonesia**

A webinar was held on 30 September 2020 with 351 attendees. The GEC received 33 requests for individual online meetings.

#### **• JCM Webinar for Chile**

A webinar was held on 10 December 2020 with 134 attendees. The GEC also received nine requests for individual online meetings.



Thailand JCM Webinar



Indonesia JCM Webinar



Chile JCM Webinar



## • JCM Webinar for Mexico

A webinar was held on 20 January 2021 with 127 attendees. The GEC also received eight requests for individual online meetings.

## • JCM Webinar for Costa Rica

A JCM webinar was held on 10 March 2021 with 66 attendees. This was the first JCM-related event organised by the GEC for Costa Rica. The GEC also received nine requests for individual online meetings.

## (3) JCM Symposium in Japan

To further promote the JCM, an online JCM symposium was held on 7 December 2020 with 181 attendees.

During the symposium, examples of how JCM project implementers addressed the challenges posed by Covid-19 were introduced, in addition to an insightful panel discussion on the role of the JCM in post-Covid-19 green recovery in JCM partner countries.



Mexico JCM Webinar



Costa Rica JCM Webinar



JCM Symposium in Japan

## C Promotional Activities for JCM

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

#### • Surveys

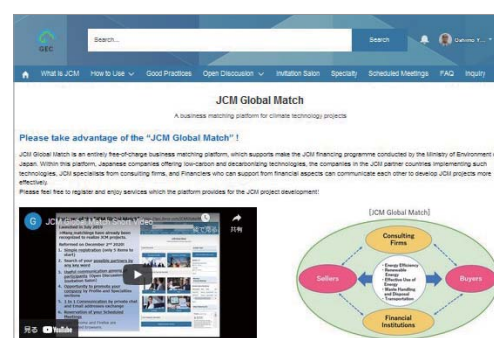
A survey was sent to 1,500 recipients to analyse how they were affected by Covid-19 and how they addressed the challenges. In addition, another survey was posted on an online climate business magazine. The feedback received will be used not only to identify and nurture potential projects, but also to improve the way the JCM is operated.

#### • JCM Consultation Meetings

Throughout the year the GEC met with companies who were preparing to submit a JCM proposal. The number of these meetings increased from 177 in 2019 to 196 in 2020.

### (2) Renewal of JCM Global Match

The updated version of the JCM Global Match, which was originally launched in 2019, was released in December 2020. Steadily gaining traction, the number of users reached 531 (of which 25% were Japanese users), with 222 matches as of April 2021.



Top page of the new JCM Global Match

## Support on Climate Technology Centre and Network (CTCN) Project Development



Commissioned by the Ministry of the Environment, Japan, the GEC provided assistance on developing projects with developing countries to be submitted to the Climate Technology Centre and Network.

Activities included setting up a webpage (<https://gec.jp/jp/category/ctcn/>), as well as conducting meetings with organisations who expressed interest in the CTCN.

As a result, two capacity-building projects to accelerate the introduction of wind energy in Uganda, as well as waste-to-energy technology in the Philippines, were identified.

## Support for Japan Fund for Joint Crediting Mechanism (JFJCM)



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

- The Philippines: Building up local health networks and delivering Covid-19 vaccines for the UHC Project
- Palau: Disaster-resilient clean energy financing

## Support for Japan Platform for Redesign: Sustainable Infrastructure (JPRSI)

Japan Platform for Redesign: Sustainable Infrastructure (JPRSI) was launched in August 2020 by the Ministry of the Environment, Japan as a place for ministries, local municipalities, the private sector, financial institutions, international organisations, experts, and others to network and share information. This year, the GEC collected and organised 110 technologies developed by JPRSI members and published a list on the JPRSI website in both Japanese and English.

Category	Technology	Outline	Registered Solutions	Project Examples <sup>*)</sup>
Resource Reduce Technology		It is a technology that controls the input of resources and the generation of waste at the stages of product manufacturing, distribution, consumption, and use. Specifically, we are reducing the amount of raw materials used (resource saving), extending the life of products, and reducing the amount of waste and by-products in the manufacturing process.	12 Solutions Register (Waste and Change Materials, etc.) Society and energy (AI, etc.) AI, etc.	12 Solutions Register (Waste and Change Materials, etc.) Society and energy (AI, etc.) AI, etc.
	Life Cycle Assessment (LCA)	This is a method for quantitatively evaluating the environmental impact of the entire product / service life cycle (resource reduction, material production, product production, distribution, consumption, disposal / recycling) or at a specific stage thereof. Carbon footprint, scope 2, etc. are examples of its application.	Carbon footprint on the production of products (materials, etc.) Carbon footprint on the production of products (materials, etc.)	Carbon footprint on the production of products (materials, etc.) Carbon footprint on the production of products (materials, etc.)

JPRSI Solutions Webpage  
(<https://www.oecd.org/jprsi/en/solutions/index.html>)

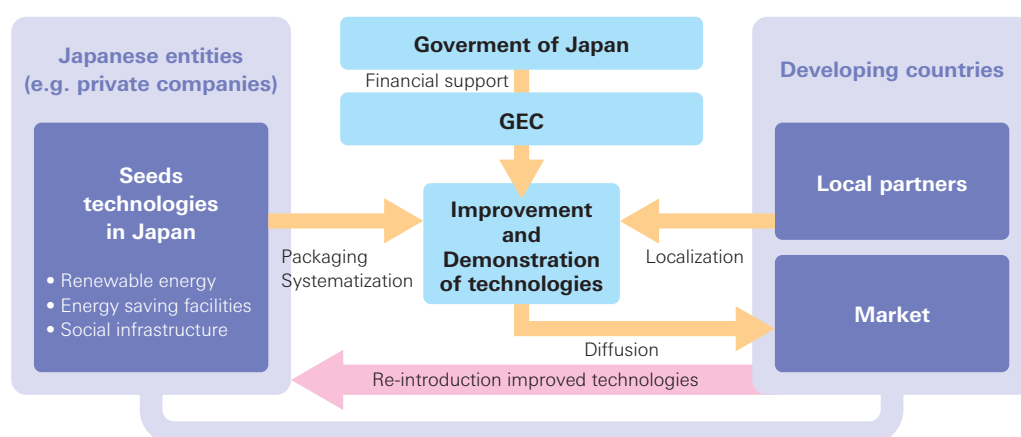
## Renovation and Demonstration of Decarbonising Technologies through collaboration with developing countries

### Financing Programme to Demonstrate Decarbonisation Technology for Realising Co-Innovation in FY2020



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

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



### GEC's Activities in FY2020

Each year, the GEC calls for, reviews and selects project proposals for the financing programme, and manages the selected projects. In fiscal 2020, the GEC held open calls for proposals and selected new projects in consultation with the MOEJ and the evaluation committee of experts.

- A total of four projects were selected for funding under the financial programme. (Three projects were selected in first selection period, and one project in the second.)
- Project management: The GEC oversaw the progress of the projects that had been selected in fiscal 2019 through monthly reports and meetings, and provided suggestions for improvement when needed.
- Intermediate evaluation: Eight projects that had been selected in fiscal 2019 were evaluated by the evaluation committee based on an intermediate progress report submitted by each project participant in February.
- Final inspection: The GEC conducted a review of the final reports (including evaluation of final reports and online-site inspection) and disbursement of financial support within fiscal 2020, in regard to the eight projects that had been selected in 2019.
- For many projects, it has been difficult to visit the project sites due to Covid-19. As a result, nine projects were carried forward to the budget of the next fiscal year.

### New projects selected in FY2020 (four 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
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

### Projects selected in FY2019 (eight 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

19-7  
ISR: Indonesian  
version of the Safety  
Recorder



19-8  
E-Trike (Public vehicle  
utilising electricity)



### Job Report

A 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 instructors.

## Japan International Cooperation Agency (JICA) Group Training Project



Commissioned by JICA, the GEC has carried out two training courses, in English and French, for Improvement of Urban Solid Waste Management (Emphasis on Collection, Transportation and Final Disposal), which is designed for engineering or administrative government officials in developing countries. The training course in French, newly started in FY2020, targets French-speaking African countries with few technical assistance opportunities in the field of solid waste management. The FY2020 training courses were implemented by distance learning because of the Covid-19 pandemic, and training materials were provided online. Training in Japan in FY2021 for those participants who complete the distance learning is planned if the pandemic situation permits.

### Improvement of Solid Waste Management Technologies (Basic, Techniques)

Training Dates / Participants	Programme
<b>Course A (English)</b> <ul style="list-style-type: none"> <li>Distance learning: 12 January 2021 — 31 August 2021</li> <li>In Japan (planned): 4 October 2021 — 13 November 2021</li> <li>5 participants: Brazil (2), Cambodia, Cuba, Jamaica</li> </ul>	<b>Objective</b> 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.
	<b>Collaborators (partially planned)</b> Osaka City Environment Bureau, Fukuoka City, Kobe City, Kyoto City, UNEP-IETC, Fukuoka University, Osaka City University, Osaka City University Hospital, Osaka Environmental Facilities Association, Kitakyushu Eco-Town Centre, Nantan City Yagi Bioecology Centre, 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.
<b>Course B (French)</b> <ul style="list-style-type: none"> <li>Distance learning: 1 March 2021 — 31 October 2021</li> <li>In Japan (plan): 10 January 2022 — 16 February 2022</li> <li>4 participants: DR-Congo, Djibouti, Guinea, Niger</li> </ul>	<b>Distance learning</b> Waste Management Administration, Environmental Administration and Waste Disposal of Japan; Waste Management in Osaka City; Environmental Hygiene in Developing Countries; Outline of Hazardous Waste Management; 3Rs Approach, etc.
	<b>Site Visits in Japan (planned)</b> Waste Collection and Transportation Work, Waste Incineration Plant, Home Appliance Recycling Facility, Bip-gas Facility, Citizen Cooperation for Segregation, Sanitary Landfill Disposal Site, etc.

## GEC Networking Project for Former Training Course Participants



Since FY1998, the 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. Starting in 2018, the GEC has moved to a system with a new network platform leveraging the increasingly popular SNS services.



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