

For the future of the Earth

INTERNATIONAL CENTER FOR ENVIRONMENTAL TECHNOLOGY TRANSFER

ICETT

NEWSLETTER



Purpose of establishment

The International Center for Environmental Technology Transfer (ICETT) was established through industry-government-academia cooperation for the purpose of transferring technologies for environmental conservation owned by our country and various foreign countries to other regions and alleviating environmental problems on a global scale.

ICETT aims at conservation of the global environment and sustainable development of the global economy by implementing various projects according to the characteristics of various foreign countries and by promoting smooth technology transfer.

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In this issue, icons of the sustainable development goals (SDGs) closely related to the introduced projects are displayed.

Start of the 3rd Medium-Term Management Plan

As the transition towards a decarbonized society and a circular economy become an urgent global issue, the International Center for Environmental Technology Transfer (ICETT) has formulated its 3rd Medium-Term Management Plan for FY2024 to FY2028, which was approved in March 2024. The plan focuses on steadily advancing the priority initiatives of carbon neutrality and resource circulation, aiming for ICETT's ongoing contributions toward conserving the global environment and sustainable development of the global economy.

For FY2024, the first year of this plan, ICETT established its "Four Directions of Action for Environmental Conservation" and reviewed its organizational structure according to each area of focus. Through this, we will strengthen our ability to respond and conduct initiatives for technology transfer.

- Promote technology transfer in the carbon neutrality ("CN") field
- Promote technology transfer in the field of resource circulation
- Respond to environmental issues based on local needs (such as preventing industrial pollution)
- Foster the next generation of human resources and promote information and technology exchange

The ICETT website has been updated to clarify our medium and long-term vision, and to provide information on the four directions of action for environmental conservation. We invite you to take a look!

English <https://www.icett.or.jp/en/>
Japanese <https://www.icett.or.jp/>



Performances in FY2024

Direction	Subject	Outsourcer, etc.	Project	Participants, etc.	Number	
CN	Tailand	AOTS, GEF, and Self-funded	Decarbonization Support for Thai SMEs	Thai Government Officials, Thai SMEs, etc.	489	○
	Japan	Yokkaichi City	Decarbonization Management Support Seminar for Yokkaichi SMEs	SMEs in Yokkaichi city	34	○
	Japan	—(Self-funded)	Overseas Transfer Project of CN-Related Technologies	SMEs in the Chubu region	181	○
	Japan	—(Self-funded)	Utilization and promotion of Initiatives of carbon neutrality in Yokkaichi Industrial Complex	(ICETT participated as an observer)		
Resource Circulation	Japan	—(Self-funded)	Transfer of Recycling Technologies for Plastic Resource Circulation	SMEs in the Chubu region	—	
	Phillipin	AOTS, Self-funded	Fostering Human Resources in the Green Growth Strategy Sector	Phillipin Government Officials, etc.	8	○
	Japan	—(Self-funded)	Overseas Transfer Project of Resource Circulation Technologies	SMEs in the Chubu region	489	○
Others	Palau	JICA	The Project to Promote Systematic Household Waste Segregation and Discharge in Babeldaob Island, the Republic of Palau	2 states and 8 elementary school in Palau	—	○
	Cambodia	CTI Engineering International Co.,Ltd.	The Project for Capacity Development on Water Pollution Control	Cambodia Government Officials, etc.	7	○
	Vietnam	Yokkaichi City	Economic Exchange with Hai Phong City, Vietnam	Companies, etc.	25	○
	China	Yokkaichi City	Tianjin Environmental Exchange Project	Tianjin Government officials	4	○
	Japan	Mie Prefecture	The Glocal Human Resource Development Course	High school and university students, etc. in Mie	39	○
	China, USA, Japan	Yokkaichi City	Global Environment Workshop for High School Students	Students in Tianjin, Long Beach, Yokkaichi	12	○
	Japan	ERCA	Study Tour for ERCA Officers on the History of Yokkaichi Pollution and the Companies' Responses	ERCA Officials	14	

※ The Association for Overseas Technical Cooperation and Sustainable Partnerships(AOTS), The Global Environment Facility(GEF), Japan International Cooperation Agency(JICA), Environmental Restoration and Conservation Agency(ERCA)

Articles published in this NEWSLETTER : ○

2024 was the second year for ICETT's self-funded initiatives that supported decarbonization business management in Thailand and the waste to energy project in the Philippines. We have established a framework for direct collaboration with partner countries with partial funding from external sources including subsidies, and were able to proactively advance activities according to needs, marking a significant milestone for ICETT.

For domestic activities, ICETT has expanded the number of its self-funded seminars from two to six times per year. Along with monitoring policies and trends related to domestic CN and resource circulation, we were able to provide timely themes and information tailored to the Chubu region to a wide range of companies in the area.

Next, we will introduce activities conducted in FY2024 according to the four directions of action for environmental conservation.

Promotion of Technology Transfer in the Field of Carbon Neutrality



Achieving carbon neutrality (“CN”) requires grasping the amount of greenhouse gas (“GHG”) emitted through business operations; this includes supply chains. Since FY2021, to promote proactive efforts toward CN among small and medium-sized enterprises (SMEs) in Japan, ICETT has been holding decarbonization management support seminars that introduce methods to calculate GHG emissions and case studies of reducing emissions. In FY 2024, we started to support decarbonization management for SMEs in Thailand, building on knowledge gained through support for domestic corporations.

Decarbonization Support for Thai SMEs

Self-funded, with subsidy from the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS) and the Global Environment Facility (GEF)

Outline

In May 2024, Thailand’s Department of Industrial Works (DIW) and ICETT signed a Memorandum of Understanding (MoU) for cooperation in initiatives promoting GHG emission calculation and reduction efforts for CN in the Thai industrial sector.

Based on this MoU, DIW and ICETT jointly held three CN seminars in Bangkok for SMEs in Thailand (The third seminar was also co-organized with the United Nations Industrial Development Organization (UNIDO)) (held in May and September 2024, and February 2025, with a total of 468 participants). At the Thai government’s request, ICETT also welcomed a delegation composed of members from Thai government agencies and conducted a training program in Japan (held for four days in October 2024, with 21 participants).

The second seminar was conducted as part of a project by the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS), which is subsidized by the Ministry of Economy, Trade and Industry. The third seminar and Japan training program was supported by the Global Environment Facility (GEF), through UNIDO.

Background and purpose

The Thai government, including DIW, has been implementing various policies aimed at achieving CN by 2050. However, there are few opportunities to obtain practical knowledge and expertise regarding CN initiatives in Thailand, and many companies are not aware of these policies, especially those in SMEs. In light of this background, ICETT has undertaken this project to enable companies in Thailand to obtain better understanding and significance of pursuing CN and how to calculate and reduce GHG emissions.

Through this project, ICETT aims to promote CN and reduction of GHG emissions in the Thai industrial sector, and in the future, also make it easier to introduce high-quality energy-efficient technologies and services from companies in Chubu region and other Japanese companies to Thai businesses.

Details

Three CN seminars were held for local companies (including Japanese-affiliated companies), provided lectures and exercises on domestic and international CN policies and trends, along with practical training related to methods of calculating and reducing GHG emissions. Thai companies also shared their initiatives, and an opportunity for lecturers and participants to exchange views on challenges and ask questions.

Training for the delegation visiting Japan consisted of participants visiting companies in Mie Prefecture that have been running advanced CN projects, and introduction of CN policies and initiatives in the Chubu region by national and local government agencies.

Results and prospects

There were 468 attendees at seminars held in Thailand, which is a clear indication of local companies’ strong needs. For FY2025, we plan to provide in-depth consultancy to several companies in Thailand regarding calculations of GHG emissions and other CN efforts, as a model company case study in Thailand.



The MoU signing with DIW and ICETT



Scene from the second CN seminar in September



A lecture by an ICETT staff member on Life Cycle Assessment (LCA)

Decarbonization Management Support Seminar for Yokkaichi SMEs

Commissioned by Yokkaichi City



Scene from the decarbonization management support seminar

To encourage proactive decarbonization efforts in SMEs, ICETT has held a decarbonization management seminar that explains detailed approaches to this matter. Furthermore, a Yokkaichi SME that is actively pursuing decarbonization management was selected as a model company for close, in-depth consultancy (the seminar took place on November 7, 2024, with the cooperation of the Yokkaichi Chamber of Commerce and Industry. There were 34 participants, and the model company received consultancy for eight months.)

The model company was supplied with GHG emission calculations, planning for reduction targets, and a medium-term roadmap. Sharing the progress of the in-depth consultancy and introducing subsidy programs enabled participants to envision the significance of decarbonization management efforts for SMEs, and how these efforts can be applied in their own companies.

Overseas Transfer Project of CN-Related Technologies

Self-funded

ICETT held three seminars to promote the overseas business expansion of companies in the Chubu region possessing CN-related technologies (October and December 2024, and March 2025, with 181 participants, both on-site and viewing online).

The first seminar covered "Trends and Business Opportunities for Decarbonization Initiatives in ASEAN Countries."

The second seminar, titled "Business Cases and Key Points for Implementation in the CN field in ASEAN Countries," featured many practical insights from three companies that are striving to export their CN-related technologies, such as fluorocarbon recovery/recycling, small-scale hydropower generation, and water purification using gas-dissolving devices. Additionally, the third seminar presented ICETT's efforts in Thailand and the Philippines.

The seminars included active networking between participants and lecturers, and participant survey results indicated high praise for them. Drawing on the knowledge gained through this project, ICETT plans to continue providing beneficial information and opportunities for networking regarding CN to companies in the Chubu region.



Scene from a lecture



Scene from a general Q&A session

Promotion of Technology Transfer in the Field of Resource Circulation



Initiatives for resource circulation, which is a way to efficiently utilize limited resources and reduces environmental impact, are essential for establishing a sustainable society. ICETT is working to identify companies in Mie Prefecture and the Chubu region that possess technologies for recycling and waste treatment, while carrying out technology transfers toward initiatives that help to achieve a circular society.

ICETT also actively promotes Japanese technologies and case studies to domestic and overseas industries, local governments, and relevant organizations. In the last fiscal year, our activities included welcoming a delegation from the Philippines.

Fostering Human Resources in the Green Growth Strategy Sector

AOTS subsidy/Self-funded

Background and purpose

The Republic of the Philippines ("the Philippines") is one of the countries experiencing significant economic growth.

At the same time, however, the country faces a number of environmental challenges: one of which is how to manage organic waste, including food waste. In Pampanga Province, the target for this project, organic waste accounts for approximately half of all generated waste, and much of this waste is known to be disposed in landfills without being treated appropriately. That makes it one factor contributing to global warming.

Details

ICETT has welcomed a delegation from the Philippines that included representatives from government agencies, including the Industrial Technology Development Institute (ITDI), the Department of Science and Technology, along with business executives. The purpose was to provide training focused on technologies to convert food waste into energy. Participants received lectures from experts, visited relevant facilities in Mie and Aichi prefectures, and took part in discussions on Japan's resource circulation mechanisms and technologies to deepen their understanding on the subject (held for seven days from October to November 2024, with 8 participants).

Results and prospects

This training program offered key people from the Philippine government and industrial sectors with a rare opportunity for on-site learning about Japan's advanced technology for converting food waste into energy, along with case studies. It served as a reference for future technology transfer to the Philippines and supported efforts to promote sustainable waste management and energy utilization.

ICETT will leverage the achievements of this training event to continue collaborations with organizations such as ITDI in order to carry out projects that help to spread technologies that convert waste into energy in the Philippines.



Visiting the Tsuji Oil Mills co., Ltd.
(Matsuzaka City)



Closing ceremony

Overseas Transfer Project of Resource Circulation Technologies

Self-funded

ICETT held the "ICETT Resource Circulation Seminar" three times during the last fiscal year. The seminar aimed to contribute to the promotion of resource circulation and related businesses in Japan and abroad, including ASEAN countries, by sharing information on recent policies and practices with companies and organizations, mainly in the Chubu region. (October 2024, and February and March 2025, with a total of 489 participants both on-site and viewing online).

Themes were configured for each session, with focus on e-waste (electrical and electronic equipment waste) resource recycling in ASEAN, automobile resource recycling, and textile resource recycling. Sessions included introductions of policies from the Ministry of Economy, Trade and Industry, and the Ministry of the Environment, along with expert insights into the current situation and issues, as well as innovative case studies from corporations and projects.

These seminars provided diverse perspectives on the current situation and issues related to selected products and materials, while also serving as an opportunity to reflect on the future promotion of resource circulation. There was active networking after each session, contributing to new collaborations and project creation.

Building on the knowledge and participant feedback received in FY2024, ICETT will continue to hold its Resource Circulation Seminars in FY2025. ICETT hopes that these seminars will contribute to the further promotion of resource circulation not only in Mie Prefecture and Yokkaichi City, but also throughout the Chubu region.



Scene from a seminar



Business card exchange and networking

Responding to Environmental Issues Based on Local Needs



In developing countries, population growth, rapid urbanization and industrialization combined with outdated environmental regulations and infrastructure have led to serious environmental issues such as water and air pollution and waste issues. To respond with solutions tailored to the environmental issues facing each region, ICETT collaborates with relevant organizations to provide support for communities. In FY2024, activities included promotion of waste segregation and discharge by residents in the Republic of Palau, along with training programs and seminars held in Japan.

The Project to Promote Systematic Household Waste Segregation and Discharge in Babeldaob Island, the Republic of Palau (Grassroots Technical Cooperation Project/Community Empowerment Model)

Commissioned by JICA

Outline

Mie Prefecture and ICETT, together with the Republic of Palau's ("Palau") Bureau of Public Works, Ministry of Public Infrastructure and Industries ("BPW"), and Ministry of Education are working on a three-year project spanning from February 2023 to January 2026 to promote household waste segregation and discharge practices in Palau.

Background and Purpose

Waste is not generally segregated in Palau, which is blessed with a beautiful natural environment, and extending the lifetime of its newly established landfill has been a challenge. ICETT has therefore been working to promote waste segregation in the region, starting with Phase 1 (conducted from August 2018 to February 2022), which introduced waste segregation practices to two communities on Babeldaob Island. Phase 2, currently underway, targets all residents of the initial two regions along with states of Aimelik and Ngatpang ("two states"), and all eight elementary schools on Babeldaob Island.

Details

In Phase 2, ICETT's activities ran in collaboration with a promotion team comprising members from BPW, Ministry of Education, local NGOs, state governments, and schoolteachers in Palau. Activity Plans for the two target states and schools were developed with the promotion team. The characteristics of Palau were taken into consideration and a decision was reached to create elevated, roofed resource stations, similar to the model communities in Phase 1.

To boost residents' motivation, presentations were held at local gatherings in each state using slides, videos, and actual recyclable waste to share experience of model communities and simulate waste segregation practices. There were also home visits, in which easy-to-understand manuals specially designed for residents were handed out and explained. For schools, team meetings took place with representatives from each school to discuss details on implementation and exchange ideas for teaching students. Main topics included waste segregation methods for cafeterias and the 2Rs (reduce and reuse) for paper waste, of which a large amount is generated in schools. Some schools even reused tires to design their resource stations.

Japan and Palau held various commemorative events to celebrate their 30th anniversary of diplomatic relations in 2024. A special exhibition on Palau was held in Ise City, Mie Prefecture, providing us an opportunity to highlight this project. Furthermore, an online exchange of elementary schools in Japan and Palau has been held on the theme of food, which enabled students to boost their interest in each other's cultures and environmental issues.

Results and prospects

In February 2025, resource stations were established at all eight elementary schools on the island, and waste segregation activities commenced at each school. Along with this, there was a video contest held between these schools to promote this initiative, enabling teachers and students alike to develop a deeper understanding of waste segregation through creation of these videos. The sight of children actively involved in efforts to separate waste also raises awareness among local residents through their parents. We will continue to promote collaborative activities with schools and communities in the hopes that children's education and practice at home will raise awareness and change the behavior of citizens in surrounding communities.

In March 2025, 32 new resource stations were established across the two states, marking the start of waste segregation practices in the region. For the residents of Palau, who are not accustomed to this new way to dispose of waste, separating and cleaning waste for recycling is an entirely novel experience. We will continue working with the promotion team to provide effective awareness-raising activities for residents and schoolchildren, with the goal of building a structure which residents take the lead in waste segregation activity (travel months during FY2024: July, September, January, March).



Visiting homes in the community



Waste segregation at stations



Waste segregation at schools

The Project for Capacity Development on Water Pollution Control

Commissioned by JICA (implemented by CTI Engineering International Co., Ltd.)



Tour of a company's wastewater processing facilities

ICETT conducted a training program in Japan commissioned by the contractor implementing JICA Technical Cooperation Project "The Project for Capacity Development on Water Pollution Control in Cambodia". (The training program ran over five days in August 2024, with 7 participants.)

Cambodia is working to improve the quality of water environment in the Prek Tnaot river basin, which has been chosen as a pilot area. National and local government officials were invited as key people to participate in a training program, which included visits to facilities and companies related to wastewater treatment in Mie Prefecture. This was done to deepen their understanding of Japanese regulations and wastewater standards, water treatment processes for water and sewage based on Mie Prefecture ordinances, onsite inspection methods by the government, water quality analysis, measurements, and monitoring techniques, and of collaboration between the national government, prefecture, and private sectors. Some participants noted that the training was particularly beneficial, and they wished for more time for deeper learning, and that the initiative was able to fulfill the expectations of the contractor.

Economic Exchange with Hai Phong City, Vietnam

Commissioned by Yokkaichi City



Greetings from Mayor Mori of Yokkaichi

Based on the Memorandum of Understanding on economic exchange signed by Yokkaichi City and Vietnam's Hai Phong City, ICETT held a seminar on investment in Vietnam. 50 people participated in this seminar, including 25 representatives from companies and organizations within and outside Yokkaichi City, along with 25 related participants. Although the Hai Phong City People's Committee group was not able to visit Japan due to a typhoon, an expert on the Deep C Industrial Zone gave a presentation on the economic status and investment climate in Vietnam and Hai Phong City. Isuzu Dengyo Co., Ltd. (headquarters in Yokkaichi City) explained the background of their expansion into Vietnam and the attraction of the Vietnamese market. Furthermore, support programs for business expansion into Vietnam were introduced from diverse perspectives by investment promotion agencies, local governments, and financial institutions.

As a result, the event received praise from participants and helped to build momentum towards business expansion into the Vietnam market (held on October 3, 2024, in Yokkaichi City).

Tianjin Environmental Exchange Project

Commissioned by Yokkaichi City

Ever since Yokkaichi City and Tianjin City of the People's Republic of China established a sister city relationship in 1980, the two cities have continued exchanges across various fields. As part of these exchanges, ICETT has been commissioned by Yokkaichi City since 1993 to conduct ongoing training and exchange programs for staff from the Tianjin Municipal Bureau of Ecology and Environment, whose aim is to solve Tianjin's environmental problems. In FY2024, an inbound training program in Japan on preventing air pollution was held for the first time since 2019 (running for five days in November, with 4 participants).

The training included lectures by Yokkaichi City officers on topics such as laws related to preventing air pollution, as well as the history of Yokkaichi Pollution and efforts made to resolve it. Furthermore, participants visited companies for on-site observation and to deepen their knowledge of various environmental measures, including air pollution prevention technologies, measures to reduce volatile organic compounds (VOCs) at production sites, resource circulation efforts, and community service activities. A tour of a biomass power plant also enabled participants to grasp Japan's efforts toward achieving carbon neutrality. To conclude the training, participants were provided an opportunity to present how they would incorporate what they have learned into their work.

China released its "Action Plan for Continuous Improvement of Air Quality" in 2023, making preventive measures for air pollution in Tianjin even more important than before. We hope that participants will make most of the knowledge gained through this training program to further advance their initiatives to prevent air pollution.



Scene from the closing ceremony

Fostering the Next Generation of Human Resources and Promoting Information and Technology Exchange



ICETT applies its experience in environmental technology transfer projects and its network of domestic and international partners to its exchange programs, which are designed to foster the next generation of human resources, such as high school and university students. Our main goal is to empower the younger generation to recognize that environmental issues affect them personally, to reflect on how these issues relate to their own lives and actions, to be aware of what they can do for the future, and to have the capacity to take action. Furthermore, we also promote global perspectives and collaborative skills through exchanges with young people from outside their own country, giving younger people opportunities to come in contact with different cultures and values.

The Glocal Human Resource Development Course

Commissioned by Mie Prefecture



A scene from a lecture (Third session)

Commissioned by Mie Prefecture, ICETT has held three sessions of the “Glocal Human Resource Development Course.” This program aims to foster “glocal” (global and local) human resources through courses that encourage the younger generation, who are the next leaders of Mie, to heighten their global awareness and take a look outside their own country.

The first seminar was on “Understanding Different Cultures.” The second was “Sustainability and the Environment,” and the third had “Global Warming” as the main theme. Lecturers from leading companies and organizations in Mie Prefecture were invited to hold lectures, and group discussions and company site tours also took place (held in October, December 2024, and February 2025, with 39 participants in total).

Along with the main theme, each seminar featured insights into the lecturers' own working styles and career paths. Participants also gained opportunities to share information on career development and future paths with others from different organizations and age groups. As a result, the program received high praise, with many commenting that it was a wonderful opportunity to reflect thoroughly on their careers.

We hope this course will have nurtured the participants' understanding toward environmental issues and sparked interest in global careers, as a stepping stone toward further learning.

Global Environment Workshop for High School Students

Commissioned by Yokkaichi City



Commemorative photo after receiving certificates of completion

Commissioned by Yokkaichi City, ICETT held the “Global Environment Workshop” for high school students under the theme of “Aiming for Nature-Positive: Let's Think about Conserving Biodiversity” (held for seven days in July to August 2024, with 4 participants each from three cities for a total of 12).

Every year during the summer vacation period we invite high school students to Yokkaichi from Tianjin, China, and Long Beach, USA, which are our friendship and sister cities, to join students from Yokkaichi City in training and exchange activities that focus on environmental issues. Beyond workshop activities, the program promotes deeper mutual understanding through day-to-day interactions, aiming to help leaders of the next generation gain an international perspective and contribute to reinvigorating environmental conservation initiatives in the participating cities.

For the FY2024 workshops, participants learned about the importance of protecting biodiversity and the challenges posed by invasive species through lectures and fieldwork in Yokkaichi's rich natural environment. They also learned about the history of Yokkaichi Pollution and its improvement while taking part in cultural exchange activities such as Japanese flower arrangement experiences and attending a summer festival. At the final presentation the workshop, participants were divided into two mixed teams representing all cities, and the participants gave presentations on future initiatives for conserving biodiversity in each of their cities.

We hope that after completing this program, participants will apply this knowledge to their everyday efforts toward solving environmental problems, and actively play their roles as human resources equipped with a global perspective.