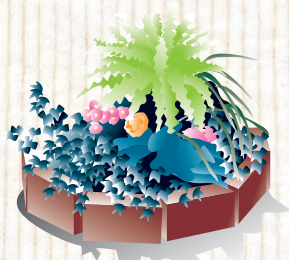


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FY 2013 Project commissioned by the Ministry of Economy, Trade and Industry

CTI PFAN Asia Forum for Clean Energy Financing

Outline

CTI PFAN Asia Forum for Clean Energy Financing (AFCEF-3) was held on 22 February 2013 in Singapore. More than 100 financiers, clean energy experts and representatives of financial institutions from across Asia and overseas participated in the Forum.

Way for the Next Generation of Clean Energy Projects

The projects showcased at the Forum, with a total aggregate investment value in excess of USD 297 million, included bio fuels, solar, biogas, waste to energy initiatives developed by entrepreneurs and companies from India, Thailand, Philippines, Cambodia, Bangladesh and Indonesia.



Panel of judges

From the ten showcased projects, a panel of independent judges selected RiverGen, mini-hydro projects in Indonesia, and Shri Shakti Alternative Energy Pvt. Ltd., a solar park project in India as the joint winners of the CTI PFAN Clean Energy Financing Awards. For investors, AFCEF-3 was a great opportunity to access a select group of clean energy projects with high profit potential, verified environmental and development benefits, which are ready for investment. It also provided a unique networking forum for Asia's clean energy entrepreneurs.

"As a member of the international society, Japan supports CTI activities through the Ministry of Economy, Trade and Industry leading the organization of CTI PFAN Financing Forums like AFCEF-3 with ICETT acting as the CTI



Finalist Project Developers

Secretariat," said Mr. Kei Miyaji of METI. "To address climate change issues, it is crucial for both developed and developing countries to integrate technology, market and finance, thereby promoting wider use of advanced low-carbon technologies and products."

Following on the success of AFCEF-3, ICETT is organizing AFCEF-4 on 28 February 2014 in Singapore. (Kuroda)



Keynote speech by: Mr. Kei Miyaji of METI

FY2012 Small and Medium-size Businesses Industrial Pollution Prevention Survey “Local and Overseas Development Survey on Environmental Business Using Industrial Pollution Prevention Technologies in the Chubu Region,” undertaken by the Chubu Bureau, Ministry of Economy, Trade and Industry

Outline

Amidst the trend for environmental business development in and outside Japan, the Chubu Bureau of the Ministry of Economy, Trade and Industry has promoted the development of environment-related enterprises as one of the industries utilizing the characteristics and “strength” of the Chubu region (Aichi, Gifu, Mie, Toyama, Ishikawa prefectures). As part of this effort, we gained understanding of the current situation of enterprises engaged in environmental business in the region through a comprehensive survey, and based on the survey results, considered measures and systems that could provide comprehensive support for future business expansion in and outside Japan. ICETT undertook the implementation of a series of these programs.

Program description:

These programs were implemented from autumn to winter 2012, comprising questionnaires for local enterprises, an interview survey for environmental business-related enterprises, preparation of a enterprise database, documentary search, seminars, and exchange meetings. For the confirmation of the direction and the management of the progress, those programs were implemented while holding three committee meetings.

The survey data report (in Japanese) can be accessed as a PDF file at the link below.

<http://www.chubu.meti.go.jp/kankyo/data/0314report.pdf>

Information on the 219 respondent enterprises that are positively considering overseas development can be accessed at the website below.

http://www.chubu.meti.go.jp/kankyo/kankyo_business.htm#chi_data

Information on 116 of the above enterprises can also be viewed in English at the link below.

http://www.chubu.meti.go.jp/kankyo/kankyo_business_english.htm#database

These survey results reveal that the Chubu region has a higher percentage of enterprises related to waste disposal, recycling, and sewage and waste water treatment, and that these enterprises have sought local needs. At the same time, large enterprises have looked to small and medium-size businesses as their business partners for their high quality work and technical strength, as well as for their lower pricing, quicker delivery, and communication capabilities.

Reflecting on the survey results, the whole Chubu region is reconsidering support methods and system that have been implemented separately by national and local governments, industry groups, and others.

Because the ICETT has many channels through projects in other countries, it will be able to expand the function of a support organization. We appreciate the continued cooperation of trainees who have returned to their home countries. (Minamikawa)



Database: Seeds collection



Participants in a seminar

The Project on Invitation to Japan for Environmental Research (PIER)-A program to invite researchers of environment-related technologies to Japan as part of the Program to Inherit and Develop the Principles of Expo 2005 Aichi Japan

Outline

To inherit and develop the “Gathering World Wisdom and International Exchange for Global Problems,” the basic principle of the program is to invite researchers of environment-related technologies as part of the Program to Inherit and Develop the Principles of Expo 2005 Aichi Japan, which was closed in September 2005. ICETT, which for five years has already invited from EXPO-participating countries and regions 20 excellent researchers in the environmental field to Japan, has implemented programs that aim to enable these researchers to transfer knowledge and technologies gained through their activities back to their home countries.

In March 2013, ICETT held a research exchange presentation session that provided follow-up to the researchers by once again inviting to Japan who had returned to their home countries.

Program description:

Twelve countries have been invited to the programs during the past five years: the Philippines, Indonesia, Vietnam, Laos, Thailand, Sri Lanka, India, Pakistan, Uzbekistan, Iran, Egypt, and Côte d'Ivoire. While there are many research themes such as policy methods, treatment technologies, monitoring and analytical techniques in such fields as air quality, water quality, waste management, recycling society construction, and education in global warming, energy and environment, the most

popular and nearly the most common approach methods are biological approaches that handle microorganisms.

Outline of research exchange presentation session

The session was held in March 2013 at Kogakuin University in Tokyo, and participated in by 16 of 20 researchers and 19 advising teachers. Each researcher presented post-development statuses of their research activities and environmental problems in recent years in their own countries, and deepened their discussions on common problems. In the later social gathering, we commended researchers from Pakistan and Iran who achieved practical results after returning to their home countries, as well as researchers who obtained a doctoral degree in the name of the Chubu Bureau, Ministry of Economy, Trade and Industry. This gathering, in which new tie-ups between laboratories were formed, provided a good opportunity for participants to gain enlightenment and awareness and to deepen their ties with others. (Minamikawa)



Participants in the program

Integrated Program for Environment-friendly Compost Systems in the Republic of Palau (IPECS)

Outline

In the Republic of Palau, a country with a serious waste problem due to rapid development of its tourism industry and a shortage of landfills, improvement of its waste disposal capability has become one of the country's most important issues.

Continuing the previous fiscal year's program, this program, aiming at establishing a resource recycling system and seeking efficient collection of garbage as well as a system to use composting in the population-dense State of Koror, implemented a program intended to have the system take root in the local community, and terminated this 18-month program.

Program purpose:

This program intends to establish a system to recycle household garbage into compost in the highly-populated State of Koror.

Program description:

(1) Spread of primary waste disposal process

Promotional activities were conducted in the Ngerbeched District as a model, whose households were encouraged to keep the organic waste by using the method that prevents generation of odors until the next collection day. Follow-ups for participating households have been provided as required, and these households are still engaging in primary waste disposal.

(2) Discussion on collection of processed waste

A discussion was held on how to collect and transfer processed waste with the Waste Management Office of the State of Koror. After active discussion that included a case in Mie Prefecture, Koror decided to organize a residents' association intended to conduct more efficient collection, and to shift from individual collection to collection at common points.

(3) Evaluation of compost

After collection from households, the compost, which was produced at the State of Koror Compost Center, was evaluated with a growing test using vegetables in cooperation with Palau Community College (PCC). The test results demonstrated the effectiveness of compost use and the proper quantity of applied compost.

(4) Comprehensive seminar held

In a seminar held in February 2013 intended to share the details and results of the program with the public, and where about 50 participants engaged in an active Q&A session, we realized that garbage composting could attract attention.

Achievements and future outlook:

As a result of monitoring participating local residents, we confirmed that people's awareness of their living environment and waste had improved, such that they were more aware of waste in public spaces outside their homes. With an increasing number of applications to participate in this program coming from other areas in the state, the state government is planning to expand the system in steps in its major districts within the next five years. (Oya)



Demonstration at the meeting place (BAI)



Promotion activities including environmental education at an elementary school



Comprehensive Seminar

JICA: Training by region

Waste Management for Promoting Environmentally-sound Material Cycle Society in Central and South America Capacity Development for Local Government in Comprehensive Solid & Waste Management in the Republic of Peru

Outline

Entrusted by JICA, ICETT held training course on waste management for 13 administrative officials from 10 Central and South American nations (Bolivia, Colombia, Chile, Cuba, the Dominican Republic, El Salvador, Guatemala, Paraguay, Panama, and Venezuela) as well as training that invited 15 local government officials from Peru.

Background and purposes

In Central and South American countries, with increasing urban problems due to excessive concentration of the population in capital cities, environmental pollution consisting of urban waste (general waste and wastes from business activities) has become a serious problem. This training provides programs intended to improve the capabilities of administrative officials to formulate waste disposal plans suitable for the situations in Central and South American countries, and to improve comprehensive waste collection and disposal systems for 23 provincial cities in Peru through an international yen loan for ODA (Official Development Assistance) by the Japan International Cooperation Agency (JICA). Aiming for effective application of the programs, we provided training that focused on efficient waste disposal technologies in Japan, building a recycling society and providing environmental education by promoting the 3Rs (Reduce: Controlling the generation of waste, Reuse: Reusing resources, and Recycling: Resource recovery), as well as social and intangible aspects such as education and awareness of environmental preservation.

Training description

Both of the training programs comprised a basic orientation and four subsequent modules:

- 1) Intro to Japan's waste management systems,
- 2) 3R methods for a recycling society,
- 3) Waste disposal technologies and 3R practices,
- 4) Education for environmental and general awareness.

As a training summary, participants organized problems to be tackled in their home countries. By utilizing knowledge and technologies gained during the training,

they prepared and presented their draft detailed action plans for implementation after returning to their home countries, such as improving collection routes and strengthening educational campaigns.



Training for participants from Peru: Study tour at the Shinoyama Final Landfill Site



Training for participants from Central and South America: Study tour at a landfill site in Yokkaichi City

Conclusion

Since the training participants had a good attitude toward understanding their own countries' or regions' waste management levels through the training and also interactions with other participants, actively asking questions and discussing in order to learn from Japan's examples about what they should improve in the future, as training organizers we expect that what they learned from the training will likely spread far and wide.

Lastly, we would like to express our appreciation for the warm reception by everyone at the training venues.

(Uchida and Kise)



Training for Participants from Peru—Time & Motion



Closing ceremony for the training for participants from Central and South America

Joint Program between Yokkaichi Chamber of Commerce and Industry and ICETT Overseas Development Model Construction Urgent Job Creation Program Program to Promote Environmental Technology Transfer in China

Outline

In China, where target environmental values and energy-saving have been set as part of the 12th 5-Year Plan that commenced in 2011, more specific plans according to various fields and themes have been announced in order to achieve the targets. Given such a trend, it can be expected that there are many opportunities for application of Japan's environmental and energy-saving technologies. With entry into China not necessarily easy for Japanese enterprises, various problems have become evident, including differences in languages and commercial practices, as well as problems with intellectual property rights. To overcome these challenges, cooperation with Taiwan, a country with a national government that promotes industrial tie-ups with Japan, is viewed as very effective and has recently attracted attention. Accordingly, this program has included field surveys and seminars with the intention of exploring the possibility of entering the related Chinese market in cooperation with Taiwanese industry, and to share the program's achievements with enterprises in Mie Prefecture.

Field survey in Taiwan

The field survey enabled us to better understand the actual situation of the Taiwanese environmental industry; therefore, to discuss the possibility of cooperation with Japanese enterprises, we visited organizations promoting industry collaboration between Japan and Taiwan and environment-related associations and joint enterprise cooperatives from March 5 to 8, 2013, and exchanged information and opinions.

Through this survey we found that the standards for the semiconductor and petrochemical industries are scheduled to be strengthened from 2014 in the waste water treatment field, and that more advanced waste water treatment technologies and facilities will be in demand. With regard to waste recycling, whereas recycling systems have already been built in specific fields available for resource recovery, the country has faced the challenges of establishing a system for and introducing technologies to recover and recycle valuables such as rare and precious metals. Furthermore, in relation to soil and underground water pollution, we found that the country has so far succeeded in identifying polluted sites and investigating the causes, and will engage in mitigating the pollution.

All the associations, business unions and enterprises we talked with in this survey showed deep interest in the introduction and importation of Japanese technologies and products, and had a strong will to develop their business on the Chinese continent and in Southeast Asia based on their achievements in Taiwan. Numerous organizations have already taken specific actions for such development. Based on these findings, we confirmed that cooperation between Taiwanese and Japanese enterprises can result in win-win relationships for both sides in terms of business expansion.

Taiwan Seminar "Business opportunities expanded through cooperation between Japan and Taiwan"

With the aim of introducing various types of support for business provided by the Taiwanese government, as well as presenting the actual situation and experiences of business cooperation with Taiwan, and to share information obtained through the field survey, a seminar was held on March 15 2013 that attracted more than 50 representatives from enterprises and business support organizations.

The seminar started with a speech by Representative Yu Chi-Zen of the Taipei Economic and Cultural Representative Office (TECO) on benefits from cooperative business ties with Taiwan and support provided by the Taiwanese government. Also, from his own experience setting up a factory in Taiwan, President Akira Tsuji of Emulsion Technology Co. Ltd. (E-TEC) gave a lecture on the attractiveness and points of attention of business with Taiwan based on Taiwan's history and how Taiwanese think about Japan, which is very important for Japanese enterprises engaged in business with Taiwan.



Representative Yu Chi-Zen



At the venue

Although cooperation of ICETT with Taiwan has just begun, we would like to further strengthen our cooperation and contribute to the expansion of environmental businesses.

(Naoko Kuroda)

Yokkaichi City FY 2012

Tianjin Seminar

Outline

Yokkaichi City and Tianjin City have continued interactions in various fields since their Friendship City Agreement in 1980. As part of these interactions, since 1993 Yokkaichi City has entrusted the ICETT to provide training in the environmental field. The training has so far been provided for 105 participants from Tianjin City (the local seminar held in Tianjin City welcomed 555 participants). This year, a seminar was held in Tianjin City under the theme “Environmental Impact Assessment,” and training was held in Yokkaichi City.

Background

China aims to strengthen its efforts to protect the environment and Supervision and Management of the Environment as part of the environmental planning field in its 12th 5-Year Plan. In Tianjin City, a municipality directly under the central government and considered an environmental model city, environmental management in construction programs is so important that environmental assessment has become an essential tool for that purpose.

Seminar held in Tianjin

Upon receiving a request from the city of Tianjin, we held a seminar for three days from October 16 to 18, 2012, under the grand theme, “Environmental Impact Assessment (environmental assessment),” with the sub-themes, “System and Methods of Citizen Participation,” “How to Implement Environmental Assessments,” “The Actual Situation and Development of Strategic Environmental Impact Assessments,” and “Environmental Impact and Risk Prevention in the Petrochemical Industry.”



Local seminar

Description and results of the Human Resource Training

A domestic Human Resource Training was held for 14 days from November 4 to 17, 2012 at venues that included ICETT with the same theme as the Seminar, “Environmental Impact Assessment,” in which three specialists at the Environmental Impact Assessment Center in the city of Tianjin and Nankai University were invited as trainees selected from participants in local seminars. Participants at the Training learned about legal systems for Japan’s environmental impact assessment, as well as governmental and private efforts and technologies from individual enterprises, administrative organs, and universities.

We received the following comments on this Seminar from trainees: “Exchanging views with Japanese specialists was truly meaningful and provided a good opportunity to review our own work;” “The Japanese citizen participation system and efforts for landscape assessment and biodiversity provided us with a good guide;” and “I believe that Chinese enterprises, which are very different from Japanese enterprises in such aspects as careful consideration for and awareness of harmonious development with the environment, should be improved in the future.” We would like to extend our appreciation to everyone who cooperated with the Seminar. (Fukushima)



Local seminar

Yokkaichi City FY 2012

Global Environmental Workshop

Outline

ICETT held an ‘Global Environmental Workshop’ targeting high school students in a program commissioned by Yokkaichi City for eight days between July 23 and 31, 2012 during the students’ summer vacation.

Background

Because July 24 this year marked the 40th anniversary of the court’s decision in the Yokkaichi air pollution case in 1972, a turning point, participants in this program, under the theme “Yokkaichi Air Pollution and Environmental Improvement,” learned about efforts that began with the air pollution problem and led to environmental improvement in Yokkaichi City.



Yokkaichi Mayor & Chairman of the City Assembly

Eight participants learned with four high school students from Yokkaichi City. This group included four students invited from the city of Tianjin, the friendship city of Yokkaichi City, and four from Long Beach in the U.S., Yokkaichi City’s sister city.

Training description



Facility study tour in Yokkaichi City

In the curriculum, participants listened to lectures by people from the civil, business, and governmental sectors on environmental policies as a vanguard of municipalities in Japan on such matters as establishment of a relief system for pollution victims, uniquely developed in Yokkaichi City, Mie Prefecture to overcome the Yokkaichi pollution problem and achieve control of the volume of sulfur oxide. Participants also learned about experiences and lessons obtained from the process of improving Yokkaichi pollution, and went on a tour of environmental facilities. During this one-week program, participants deepened their insights on environmental problems from a global perspective by reviewing their own countries through the lens of communal life. Experiencing Japanese traditions and culture, participants developed greater interest in Japan.

Training results

On the final day, as a summary of the curriculum, we held the Yokkaichi City Environmental Summit. Divided into two groups, each with members from three countries, participants from each group presented what they could do now to protect the future of the Earth from the perspective of the world’s youth, who will bear the next generation to conclude the program.



We hope that participants, using this Global Environmental Workshop as an opportunity, will continue their interactions with other participants and play an active role in improving environmental problems in Yokkaichi City, its friendship city of Tianjin, and its sister city of Long Beach, and will build a bridge for friendship among the three cities. (Ozaki)

Japan Fund for Global Environment

Development of Comprehensive Raising Awareness Tool for Air Pollution Reduction in Ulaanbaatar City

-Raising Awareness by The Enviromental Leaders-

Outline

Receiving a Japan Fund for Global Environment grant from the Environmental Restoration and Conservation Agency (ERCA), we launched an educational program for residents, with the aim of reducing air pollution in Ulaanbaatar, Mongolia under a three-year plan initiated in fiscal 2012.

Background and Purposes

The air pollution problem that accompanied the increased population in Ulaanbaatar, Mongolia has become more serious. Given the impact on the respiratory system and lung diseases from sulfur oxide, nitrogen oxide, and smoke dust generated from vehicle exhaust in urban areas, electricity production from coal, and direct combustion of coal in Mongolian ghers (yurts) during winter, the city needs to immediately work on improving the situation to reduce the air pollution.

Aiming at practical reduction of air pollution and based on Yokkaichi’s experience with air pollution, this program establishes the AEIP, or “Aerial Environment Improvement Program.” The AEIP aims to develop environmental leaders and promote overall awareness by using an approach unique to Ulaanbaatar through a multifaceted method in cooperation with public facilities, private and educational sectors and citizens.

Program description

To organize the environmental information and understand the actual situation in Ulaanbaatar, in its first year the program conducted a health survey as well as surveys on the annual average distribution of local wind direction and velocity as well as gross PM emissions during coal firing.



Air pollution in the morning in Ulaanbaatar retaining smoke from the gher residential area

At the same time, looking toward the development of environmental leaders, and in cooperation with Ulaanbaatar’s Education Bureau, the program selected two schools, one in central Ulaanbaatar and the other in the gher (yurt) residential area, and established the Eco Club. In December 2012, the program provided a lecture on the history of Yokkaichi’s air pollution and the mechanism of air pollution for approximately 380 seventh- and eighth-grade (aged 13 & 14) students, and practiced using simplified measuring equipment with members of the Eco Club.

A seminar held in March 2013, which attracted 54 local residents including teachers and representatives of education-related institutions and civil organizations, introduced the history of Yokkaichi’s air pollution, analysis and a report on the state of atmospheric distribution and activity reports by the Eco Club and civil organizations, as well as our proposal on the establishment of the “Aerial Environment Improvement Program.”



An Eco Club lecture (topic: simple method of atmospheric measuring)



Seminar

Results and Effectiveness

Through these lectures and seminars, we were able to promote understanding of the urgent need for improvement to school faculty members, students and civic organizations. Also promoted was interest in and approvals of the development of environmental leaders and establishment of the “Aerial Environment Improvement Program.” With the growing interest in air pollution among teachers and students, the Eco Club has enabled students to develop various volunteer activities such as an essay contest and educational activities for both lower- and higher-grade students.

The fact that a local TV station crew was present at the lectures and seminars showed that the program had significant interest among the public in topics related to air pollution and that it promoted awareness among local residents. Aiming for a ripple effect of activities such as further development of environmental leaders and educational activities, we would like to spread this educational program through mass media in cooperation with related organizations. (Tamura)