JESC NEWS

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I. Report of JESC's Activities

Promotion of 3R and Circular Economy by Local Governments

The 11th 3R Conference for Asian Local Governments organized by JESC

"The 11th 3R Conference for Asian Local Governments" was held on October 23rd & 24th, 2018 in Yokohama City. The conference was held as one of the side events of the 2nd World Circular Economy Forum (WCEF2018). The theme of the conference was "Approach for Circular Economy Promotion in Asian Local Governments". Four local governments from Asian countries and 4 local governments from Japan participated.



After three keynote lectures and keynote reports, representatives from each local government gave presentations according to Comments from Person in Charge (PIC)

the theme. Presentations by Japanese business enterprises followed. In the discussion session, we shared information and discussed recycling of organic waste and plastic waste management. At the closing session, a "Yokohama Declaration" was adopted as the outcome of the conference.

On the afternoon of October 24th, we held a site visit to recycling facilities in Yokohama with participants of WCEF 2018. More than 40 people participated in this site visit.

Please see the program details, including presentation data and the Yokohama Declaration, at the website below:

https://www.jesc.or.jp/training/tabid/335/Default.aspx

"The 12th 3R Conference for Asian Local Governments" will be held in Kitakyushu City, in January 2020.

More detailed information will be announced on our website soon.

http://www.jesc.or.jp/en/tabid/205/Default.asp ${\bf x}$

In collaboration with WCEF 2018, we welcomed many participants from various countries, not only from the Asian region. It was a very good opportunity to share information for promoting circular economy and 3R with all of them. I hope the experiences and foresights of local governments and Japanese enterprises shared at the conference can be useful for all participants. I expect this meeting can serve as a bridge for networking between Asian and Japanese local governments, and also with other regions. (Kana NAKAMURA)

Declaration for Promotion of Circular Economy and Plastic Management

The 9th Regional 3R Forum in Asia and the Pacific in Bangkok, Thailand

"The 9th Regional 3R Forum in Asia and the Pacific" took place from March 4th to 6th, 2019 at Royal Orchid Sheraton Hotel & Towers, in Bangkok, Thailand.

This forum was organized by the Ministry of Natural Resources and Environment (MoNRE), Thailand, the Ministry of the Environment, Government of Japan (MoEJ), and the United Nations Centre for Regional Development (UNCRD). The theme of the 9th forum was "3R as a Way for Moving towards Sufficiency Economy - Implications for SDGs". Over 500 representatives from 40 countries (Asian & Pacific countries, etc.) participated in the forum. As the outcome, the "Chair's Summary of 9th Regional 3R Forum" and "Bangkok 3R Declaration Towards Prevention

The Ninth Regional 3R
Forum in Asia and the Pacific

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of Plastic Waste Pollution through 3R and Circular Economy" were adopted.

JESC coordinated representatives from Japan and Pacific countries who were invited by MOEJ to participate in the forum, and organized a pavilion at the "International 3R Exhibition" for Japanese companies to expand their business to foreign countries.

On the morning of March 6th, our president, Mr. Hideki Minamikawa, gave a presentation under the title "Building Circular Economy in Japan" in Plenary Session 6 (Leadership Program for Senior Policy Makers on Circular Economy) of the Forum.

"The 10th Regional 3R Forum in Asia and the Pacific" will be held in Russia, in FY 2020.



Comments from PIC



In this forum, as the theme shows, 3R and circular economy were the main topics. Also, as indicated in the Bangkok Declaration, plastic waste recycling was an important and hot topic at the Forum. We have to consider what we can do to reduce plastic waste with people of countries in Asia, the Pacific and all over the world. (Kana NAKAMURA)

Academic Network for Environmental Problems in Asian and Pacific Countries

The 18th Expert Meetings on SWAPI, entrusted by Ministry of the Environment, Japan

The 18th Expert Meetings on Solid Waste Management in Asia and Pacific Islands (SWAPI) was held from 16th to 18th January, 2019 at Surugadai Memorial Hall, Chuo University, in Tokyo. The number of Participants was 188 in total.

On the afternoon of 17th January, there were three presentations in the "Presentation of Research Projects".

From 16th to 18th January, there were three sessions under the themes of "Moving On to the Next Stage for Disaster Waste Management in Asia and the Pacific", "Management of Plastic Waste", and "Waste to Energy (WtE) Bidding Process".



An outline of each session is as follows.

1) "Moving On to the Next Stage for Disaster Waste Management in Asia and the Pacific"

The first presentation was a keynote lecture by Ms. Junko Nishikawa from the Ministry of the Environment Japan (MOEJ) about development and the status of disaster waste management in Japan and challenges by MOEJ with other countries. After the keynote lecture, presentations about disaster waste management in Tonga and Indonesia followed. And after that, the status, achievements and challenges regarding the Guideline for Disaster Waste Management in Asia and the Pacific were discussed under the title "Development of Technical Tools".

In this session, there was visible effort to progress "Guideline for Disaster Waste Management in Asia and the Pacific".

2) "Management of Plastic Waste"

First, there was a keynote lecture by Dr. Krian Joseph of Anna University, India, under the title "Plastic Waste Management: Issues and Indian Initiatives". After that, there were presentations about the situation of plastic waste management in Indonesia, Malaysia and Vietnam. After the presentations, comments and a discussion session followed. In this session, we exchanged information in each country and carried out discussions to find solutions. Plastic waste management is one of the most important topics on a global basis.

3) "Waste to Energy (WtE) Bidding Process"

The first presentation was a keynote lecture entitled "Issues on Promoting Waste to Energy Project in Asian Countries" by Mr. Yamamoto of JESC. It was a presentation about the status and problems for bid tendering of PPP project in Asian countries. After the keynote lecture, presentations from the Philippines, Indonesia and Thailand followed. After the presentations, there was a discussion session. In this session, we shared the latest information about the WtE Bidding Process in Asian countries and discussed upcoming challenges.

Comments from PIC



At the 18th SWAPI Meeting, we discussed very important topics on a global basis - not only in Asian and Pacific countries.

Personally speaking, I felt it was a very significant result that the updated status for the WtE Bidding Process could be shared.

I hope this academic network formed by the SWAPI Meeting can be a driving force to tackle environmental problems in Asian and Pacific countries. (Kana NAKAMURA)

Information Collection and Verification Survey for Municipal Solid Waste Management

in Ukraine

Ukraine, which is heading towards joining the European Union (EU), established a National Strategy for Municipal Solid Waste Management in 2017 and is trying to improve its waste management situation.

However, Ukraine has more than 48 million cubic meters of municipal solid waste generated annually and about 94% is disposed of at more than 6,000 dumping sites, mostly without any reduction. Also, since most of the existing dumping sites have already received too much waste, exceeding their planned volume, opposition movements have been vigorously organized by residents. Therefore, reduce the landfill volume has become an urgent issue.

During the period that Ukraine belonged to the Soviet Union, 10 waste incineration facilities were constructed in the Soviet Union. Energia Incineration Plant, which is the only incineration plant still functioning in Ukraine, has deteriorated on the whole in



Dumping site in Kiev

spite of being maintained with excellent technology.

Under such circumstances. Japan Environmental Sanitation Center, JESC has organized a joint venture with Nippon Koei Co., Ltd. and participated in the "Information Verification Survey Collection and Municipal Solid Waste Management in Ukraine". In this survey, JESC mainly implemented the survey and analysis of existing Waste to Energy facilities as a Japan member of the International Cooperation Agency (JICA) survey team. In addition, Dr. Fujiyoshi, a vice executive president of JESC, gave a lecture on "Experience of Waste to Energy in Japan" and there was a lively discussion at the waste management seminar held in Kiev.

Since returning to Japan, the JICA survey team has arranged the expected scenario of assistance and its conditions and submitted this to the government of Ukraine and JICA.



Energia Incineration Plant

Comments from PIC



Since Ukraine has played an important role in the field of aerospace and shipbuilding industry during the period that it belonged to the Soviet Union, the country has a high level of technology. However, modernization of waste management has been remarkably delayed as the business has been run with low public utility charges. I strongly hope that the result of this survey will be a good opportunity for Japanese cooperation with Ukraine. (Shoichi HAYAMI)

Fukuoka International Environmental Management Program by West Branch Office

Since 2011, the West Branch Office of Japan Environmental Sanitation Center (JESC) has been entrusted with the Fukuoka International Environmental Management Program by Fukuoka Prefecture.

Fukuoka Prefecture has implemented this training program for capacity building, aiming to solve environmental problems in Asian countries, since 2006. In FY2018, two training programs were held: "Treatment and Recycling of Solid Waste Course for China" and "Air Pollution Countermeasures Course for India and ASEAN".

Two executive officers from Jiangsu Province participated for 9 days in the "Treatment and Recycling of Solid Waste Course for China". The theme of this course was treatment and recycling of hazardous and harmful waste, which is a major issue in China. They had site visits of industrial waste treatment facilities business entities that discharge industrial waste. They also had lectures and opinion exchanges regarding environmental implemented bv measures Fukuoka Prefecture and the difference of laws and social system between Japan and China.



Site visit in "Treatment and Recycling of Solid Waste Course for China"

In "Air Pollution Countermeasures Course for India and ASEAN", 2 from Bangkok, 2 from the central government of Thailand, 2 from Hanoi City in Vietnam, and 1 from Deli in India, participated for 9 days.

To each participants, air quality management has become an important subject, so the theme of FY2018 was changed to air pollution countermeasures from solid waste management. We set PM2.5, VOC and ozone as the main topics.

The participants took lectures on measures in Fukuoka Prefecture as well as field visits to atmospheric measurement stations and measurement vehicles, an analysis facility, and private factories to observe current status of air pollution control. Moreover, as a technical aspect, we explained the method of component analysis and source analysis of PM2.5 in the environment.

In both courses, we gave the participants opportunities to experience Japanese culture as one of the curriculum items.

The participants enjoyed this very much.



Japanese cultural experience in "Air Pollution Countermeasures Course for India and ASEAN"

Comments from PIC



I have been the course leader for 8 years since the West Branch Office of JESC started implementing this program. I have met many participants and learned a lot from them about the situations in their countries. We have made best use of this information for the following year's program. We have been making great efforts to make better programs every year, so as to be useful for participants when they go back to their own countries, even though it is difficult to make all participants satisfied with the training programs. We also established time for Japanese cultural experience as a part of the curriculum, thinking that it is our responsibility to introduce Japanese culture to participants. (Akiko ISHII)

JICA Training Program in FY2018 conducted by JESC

The Japan Environmental Sanitation Center conducted 5 JICA Training Programs in FY2018, 2 of which focused on countries and 3 of which were group and region-focused

programs. Here we introduce one such program, which focused on Vietnam and the introduction of WtE plant, together with an outline of all programs below.

Name of course	Countries of participants
People's Republic of China • Project toward eco-friendly society (Air Pollution Countermeasures)	China
Collection, Analysis and Dissemination of Data regarding Solid Waste Management	Kiribati, Mongolia, Myanmar, Nigeria, Palestinian Authority, Papua New Guinea, Philippines, Sudan
Capacity Building Towards Air Quality Management	Algeria, Bosnia and Herzegovina, Brazil, India, Iran, Malaysia, Mongolia
Enhancement of Solid Waste Management Capacity for Waste Power Generation (A)	Bangladesh, Colombia, India, Indonesia, Nigeria, Sri Lanka, Malaysia
Enhancement of Solid Waste Management Capacity for Waste Power Generation (B)	Vietnam

Enhancement of Solid Waste Management Capacity for Waste Power Generation (B)

This training program was focused on only the country of Vietnam in order to promote Waste to Energy (WtE) plants to be introduced appropriately. Eight participants came from different and various sections of the central governments and local governments. They had many sessions of lectures and site visits, which introduced methods of solid waste management effective for WtE. Finally they made their own action plan as their goal.

During the training program, the participants actively engaged in every task, sometimes asking enthusiastically questions of the lecturers and related people of WtE plants. In discussions in particular they earnestly exchanged opinions, since they had different points of view according to their different positions. Through their active work, they were able to present their action plans, which were unique and gave clear suggestions related to their own work in order to introduce WtE plants.

Lastly, some of the participants commented that 3R and public awareness were keys to handle WtE plants appropriately, and they thought how difficult it would be for the public to understand the reason why they were requested to separate their waste. Such a country-focused program gave opportunities to bring participants together by sharing their experiences and opinions toward one goal in their own country.



Comments from PIC



At the beginning of the spring season, 8 people came from Vietnam to participate in the JICA training program. Fortunately, this was exactly when the cherry trees started to bloom. They enjoyed the best time of the beautifully colored spring season in Japan. JICA training programs give participants opportunities to be introduced to Japan as well. (Takashi MIYAGAWA, Michiyo SHIMAMURA)

II. Contribution from Participants in JESC's Activities

Solid Waste Management in Ho Chi Minh city, Vietnam

HCMC is the largest city in Vietnam with a population of approximately 8.5 million people. As other Southeast Asia mega cities with rapid urbanization, economic growth and increasing population, solid waste managing is a challenge for HCMC. The city now generated 8,700 tons of domestic solid waste, 1,500-2000 tons of industrial waste and 22 tons of medical waste each day. Most of municipal solid waste is currently sanitary landfilled (76%), the rest is composted/recycled (14.7%) or combusted (9.3%). Solid waste at landfills is mostly food waste (60-80%), high in moisture content (50-60%) and low in heating value (2.000-3.000 kJ/kg).

HCMC strategy for integrated and sustainable management of solid waste aims to reduce the amount of solid waste landfilled to 50% by 2020 and to 20% by 2025. To achieve these targets, a number of solutions were determined by HCMC People's Committee including waste separation at source, upgrading existing waste treatment plants, restoring closed landfills and calling for investment in advanced technology for solid waste treating and recycling. HCMC is now working on at-source waste separation program across its 24 districts, increasing public awareness and improving the supporting infrastructure. Besides urging existing waste treatment plants to upgrade their technology to fulfill environmental requirement, HCMC has also approved 02

WTE projects which to be operated by 2020.

HCMC authorities are making efforts to achieve set targets in solid waste management. In addition, HCMC is calling for supports in capacity building and PPP investments in advanced technology for solid waste treatment as well as restoration of closed landfills.



HCMC holds a conference for calling investment in WTE treat

Comments from the Contributor



HCMC is making efforts in moving forward proper SWM. Beside 3Rs promotion activities, the city is calling for investment in WTE projects to ensure waste treatment capacity up to 2025 and to meet targets in reducing waste to landfill and increasing waste recycled. (Ngo Nguyen Ngoc Thanh)

III. Editorial Note

In July 2020, the Olympic and Paralympic Games will be held in Tokyo. Toward the Games "Tokyo 2020 Medal Project" was set up, with medals made of gold, silver and bronze from metals found in small-scale electrical devices, having collected and recycled various kinds of used electrical devices such as mobile phones and digital cameras, etc.

As a secretariat of this project, we (Japan Environmental Sanitation Center) put out the call to collect these devices. Thanks to huge cooperation from many concerned people, we achieved the goal to collect enough metals from the used electrical devices by March of this year. We hope many people will realize the importance of recycling when athletes in many countries take back their medals to their own countries.

Please remember that the medals are made of recycled metal when you watch the award ceremonies in the Olympic and Paralympic Games on TV. (Tsutomu SAKAGAWA)

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