

MINUTES OF THE 14th TRIPARTITE ROUNDTABLE MEETING ON THE ENVIRONMENTAL INDUSTRY

Dates: 20th, November, 2014

Location: Kagawa International Hall, Japan

Objective: to strengthen cooperation in the field of environment industry among China, Korea and Japan.

Participants: 3 Chinese delegates, 9 Japanese delegates, 8 Korean delegates

OPENING SESSION

Mr. Kazumi Yoshikawa, Director of Ministry of the Environment (Japan), opened the proceedings by welcoming all participants including the delegates from China and Korea. He stated that the objectives of this meeting were to discuss the promotion of green growth and environmental cooperation within Northeast Asia. He also stated that this round table meeting was a good opportunity for exchanging information concerning the newly emerging environmental industry and thanked all participants for contributing in the success of the 14th tripartite roundtable meeting.

Mr. Myung-Sik Yang, Deputy Director of the Ministry of Environment (Korea), made a short summary of the topics discussed during the 13th Roundtable meeting held in Korea.

SESSION 1 : Sharing information and Strengthening Cooperation in Environmental Technology

Mr. Cheol-Gyu Lee, Vice President of J-E Tech Co.,Ltd. (Korea), the Chairman of the session 1, introduced the speakers in the first session.

Mr. Akira Shimada, Coordinator of Ministry of the Environment (Japan), delivered a speech on "Policy on Environmental Research and Technology Development in Japan". He introduced "the Comprehensive Strategy on Science, Technology and Innovation", which was approved by the cabinet in June 2014. He explained about "the Strategy for the Promotion of Environmental

Research and Technology Development”, which was implemented by Ministry of the Environment in line with the Basic Environment Plan. He pointed out the different themes for achieving the vision for a sustainable society. In addition, he showed specific activities related to the Strategy, such as Environmental Research Fund (ERTDF) and Environmental Technology Verification (ETV).

Mr. Kil-Nam Cho, Director of SSENG (Korea), gave a presentation on “sewage and wastewater purification and filtration technology for environmental improvement of the region”. First, he introduced his company, SSENG, and He explained about the principles of Fiber Filtration Technology and its competitive advantages. He explained the mechanism of the Korean T-P removal Treatment for STP and its 3 levels. He explained about the Korean T-P Regulation Law and about SSENG’s OASIS, which was a water treatment equipment. He also showed domestic and international examples of wastewater treatment facilities and power plants.

Mr. KunKun Shao, Vice General Manager of Jiangsu PHILIP Environmental Engineering Co., Ltd. (China), made a presentation on “International Cooperation and Industry- Academy Research Cooperation”. He gave a brief explanation as to his company, CPEEC Group. He talked about the BOT projects and hoped for further cooperation on a global level.

He introduced some concrete activities related to international cooperation with Japanese companies. For example, CPEEC and two Japanese companies, Itochu Group IGW Corporation and Matsue Doken Corporation signed tripartite agreement on February 2012, and implemented an initial demonstration project of water source protection on April 2014.

He also mentioned Cooperation efforts with a university in Korea and explained about cooperation with German companies. He proposed further international cooperation.

During discussion time, active discussion was made.

- 1) Mr. KunKun Shao (China) asked Mr. Kil-Nam Cho (Korea) about filtering technologies that Korea was currently using. Mr. Kil-Nam Cho answered that T-P removal was performed in Korea.
- 2) Mr. Cheol-Gyu Lee (Korea) asked Mr. KunKun Shao (China) the forms of cooperation between China and German companies. Mr. KunKun Shao answered that there were many forms of cooperation which include joint ventures and technology transfer.
- 3) Mr. Akira Shimada (Japan) asked Mr. KunKun Shao (China) about the current and future policies for environmental development. Mr. KunKun Shao answered that there were many companies to fund projects with high potential.

- 4) Mr. Gang-Soo Kwak (Korea) asked Mr. Akira Shimada (Japan) about the progress of Japan's ferrous waste treatment technologies. Mr. Akira Shimada answered that the cost for Industrial byproducts recycle was high, however, Japan's technologies in that area was advanced. He also stated that private companies were also actively promoting research and development in the field of final disposal sites.

The Chairperson summed up the session 1, saying that in order to preserve the global environment and to promote environmental industries, all three countries continuously made great progress in environmental technologies. He hoped that the environmental products of Korea, China and Japan can gain greater market access in the future through national environmental strategies and technological cooperation.

SESSION 2 : Environmental Management

Mr. Ryoichi Yamamoto, Professor emeritus of University of Tokyo (Japan), the Chairman of the session 2, introduced the theme of the session 2.

Mr. Ryutaro Fujisawa, Assistant Manager of Mitsubishi Materials Corporation (Japan), gave a presentation on "the Approach of Mitsubishi Materials Co. to Zero-Waste Recycling of Home Appliances in Japan". He introduced the recycling business of Mitsubishi Materials. He explained the background and overview of recycling law and specified company's activities toward zero-waste recycling of home appliances. He stated that the company recycled copper and precious metals from home appliances at the company's facilities and that the five companies of the group processed 20% of home appliances in Japan.

Mr. Gang-Soo Kwak, Director of POSCO Research Institute (Korea), gave a presentation on "POSCO's Strategic Environmental Management". He introduced POSCO's philosophy of sustainable environmental management, and showed company's visions and the Management system to achieve those visions. He explained in detail POSCO's environmental management model. He also presented a case study of a steel plant, which improved energy efficiency through replacing old blast furnace with FINEX process. In addition, he emphasized on the fact that the company enforced Eco Partnership through transferring environmental management technologies and methodology to suppliers and outsourcing partners, and through strengthening global partnership with interested parties.

During discussion time, active discussion was made.

- 1) Mr. Young-Min Khim asked Mr. Ryutaro Fujisawa (Japan) about the cement facility of Mitsubishi Materials and the regulation for waste treatment. Mr. Fujisawa's answer concerning the first question was that there were many waste treatment facilities and that waste treatment business was running well. As for the second question he answered that there were rules and regulations for waste treatment and that companies should report on their activities to the government.
- 2) Mr. Kunkun Shao (China) asked Mr. Ryutaro Fujisawa (Japan) if recycling companies received financial support from the government to cover the costs of recycling home appliances. He answered that the consumers pay the recycling fees.
- 3) Mr. Kunkun Shao (China) asked Mr. Ryutaro Fujisawa (Japan) what was being recycled. The answer was that the percentage of recycle was set by law and that the company should recycle the specified amount.
- 4) Mr. Lee (Korea) asked Mr. Ryutaro Fujisawa (Japan) about the details of the regulation on home appliances recycle. The answer was that the home appliances manufacturers controlled and monitored the recycle ratio and each recycling plant was obliged to comply with that ratio.

The Chairperson summed up the session 2, saying that all the presenting companies had made a great deal of progress, however, there was a need to aim to achieve higher objectives such as Zero Emission and in order to do so, companies needed work to improve the society, economy and environment. Therefore, with the unification of RTM and TEMM Business Forum, private companies of the three countries should be able to actively participate in opinion exchange.

Mr. Kazumi Yoshikawa (Japan) agreed with suggestion of the chairperson. He stated that in order to determine how to manage the next conference, the three countries needed to exchange ideas more.

Mr. Chen Wang (China) also agreed and stated that there should be more opportunities for opinion exchange between companies. Mr. Myung-Sik Yang (Korea) also agreed on promoting opinion exchange while he also stated that there were many things to put into consideration.

With the unification of RTM and TEMM Business Forum, the three countries agreed that promoting the participation of private companies in such meetings was one of many effective suggestions for enhancing this unification.

SESSION 3 : Environmental Labelling

Mr. Noriyuki Nozaki, Deputy Director of Ministry of the Environment (Japan), the Chairperson of the session 3, introduced the outline of Ecolabel Mutual Recognition Initiative, and the progress of common criteria among the three countries.

Mr. Ryo Osawa, Deputy Manager of Japan Environment Association (Japan), gave a speech, titled "China Japan Korea Type I Ecolabel Mutual Recognition Initiative ". First, he explained the progress of developing common criteria among the three countries. Then, he stated that as to 5 categories (PC, DVD equipment, printer, copy, and TV), the three countries had succeeded in setting up common criteria, and more than 200 products had been certified through China/Japan /Korea MRA (Mutual Recognition Agreement). Finally, he showed the next step as to ecolabelling recognition, such as the maintenance of common criteria, and developing new common criteria (projectors and stationary).

The signing ceremony with photo session was made after Mr. Osawa's presentation.

SESSION 4 : Environment Promoting Policies about Waste

Mr. Chen Wang, Section Chief of China-ASEAN Environmental Cooperation Center (China), the Chairperson of the session 4, introduced the speakers of this session.

Mr. Young-Min Khim, Director of ECO Energy Holdings Co., Ltd. (Korea), gave a presentation on "From Waste to Resource". He introduced Korea's energy from waste policies and the large scale projects of ECO Energy Holdings which included a 50 megawatt power plant. Then he talked about the environmental activities of ECO Energy Holdings and he pointed out the importance of international cooperation with China and Japan. He finally emphasized on the importance of cooperation in Northeast Asia.

Mr. Wang Xi, Program Manager of China-ASEAN Environmental Cooperation Center (China), (speaking on behalf of Mr. Jiukun Hu Director of Qingdao New World Environmental Protection Co., Ltd.), made a presentation on "An Ecological Development Model – New World". He introduced the environmental activities and its ecological development model of Qingdao New World Environmental Protection Co., Ltd.. He explained about the company's business sectors that ensured green recycle, effective resource recycling and environment security. He also mentioned international activities and communication with over 20 countries including Korea and Japan.

Mr. Akihiko Tsuboi, Director of Naoshima Environmental Center (Japan), made a presentation on "Overview of Teshima Waste Treatment Project". He introduced an advanced waste management project in Teshima and Naoshima islands. He stated that the project had started to transport Teshima's waste to Naoshima's treatment center, and its outstanding points were following; 1) waste management technology that consists of excavation, homogenization of waste, purification of groundwater and leachate. 2) Sea transportation of waste by container dump trucks mounted on dedicated ferries. 3) The capability of the intermediate treatment facility responsible for the incineration and melting treatment of waste and soil, effective use of by-products. He presented the results of waste treatment, the effective use of byproducts and the costs needed for treatment. Finally, he mentioned that information about Teshima's waste treatment project was publicly disclosed.

During discussion time, active discussion was made.

- 1) Mr. Cheol-Gyu Lee (Korea) asked Mr. Akihiko Tsuboi (Japan) to confirm the capacity of the intermediate treatment plant in Naoshima and sea transportation. Mr. Tsuboi answered that 220-230 tons/day of waste was treated in Naoshima each day (7days per week) which made about 1,400-1,600 ton per week, and 330 tons/day of waste was transported to Naoshima on weekdays (5days per week).
- 2) Mr. Kazumi Yoshikawa (Japan) asked Mr. Young-Min Khim (Korea) about the relationship between private companies and local governments. He answered that the local government was responsible for waste disposal and burrial sites but as for energy the private companies were responsible for paying the costs.
- 3) Mr. Myung- Sik Yang (Korea) asked Mr. Akihiko Tsuboi (Japan) how Kagawa has successfully dealt with the opposition of Naoshima residents. Mr Tsuboi answered that it had held a monthly conference where government officials and residents can communicate for their coexistence and came out with several promises for the well-beings of people in Naoshima.
- 4) Mr. Kunkun Shao (China) asked Mr. Akihiko Tsuboi (Japan) about the fund for Teshima's waste treatment project. He answered that the half of the fund came from the government of Japan and the other half was provided by Kagawa prefecture.
- 5) Mr. Kunkun Shao (China) asked Mr. Akihiko Tsuboi (Japan) whether there were any objections by the people of Teshima when the incident had occurred back in 1978. He answered that in 1978 there was collisions between the local government and the people of Teshima but with time the local government was able to gain people's cooperation.

The chairman summarized the contents of session 4, he expressed gratitude to the speakers for knowledge sharing on their current environment promoting policies.

SUMMARY SESSION

1. Mr. Ryoichi Yamamoto, Professor emeritus of University of Tokyo (Japan), introduced of the summary session.

2. Mr. Chen Wang made an introduction of the next Tripartite Roundtable Meeting on Environmental Industry, which was planning to be unified with the TEMM Business Forum. The delegates of China, Korea and Japan agreed that the next conference would be designed in encouraging private companies and industry experts to proactively join the conference and to make constructive discussion for the environmental industry of China, Korea and Japan.

3. Mr. Chen Wang, Mr. Myung-Sik Yang, and Mr. Ryoichi Yamamoto gave a closing address, respectively.