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**Greeting from chairman of international committee**



*This article contains a greeting from the new chairman of the International Committee of the 12th Japan Society of Material Cycles and Waste Management (JSMCWM), as well as a report on The 7th International Conference on Waste*

*Management and Technology (ICWMT) and the 11<sup>th</sup> Expert Meeting on Solid Waste Management in Asia and Pacific Islands (SWAPI).*

It is now 22 years since the Japan Society of Material Cycles and Waste Management (JSMCWM) was established in 1990. At the time, waste management was a serious social issue in Japan. And I called the situation “the time to counter the waste crisis by aiming to establish a material cycles society”. In 2009, the Society was re-organized as a corporate body. And we changed the name of the Society from “Japan Society of Waste Management Experts (JSWME)” to “Japan Society of Material Cycles and Waste Management (JSMCWM)”. With this change, we wished the Society to broaden its perspective and cover issues of resource conservation, material recycling, and greenhouse effect in addition to the original issue of waste management.

I have been elected as the 12th International Committee Chairman of JSMCWM for 2012, and will steadily undertake various tasks this appointment entails. I wish to take this opportunity to thank all senior researchers who have built the solid organization system of the Society. I believe now is a critical time for us to expand our activities internationally, especially focusing on the Asian region. Moreover, I strongly feel that we need to

take positive actions for wide-ranging developments when considering our present financial difficulties. I hope we can do our best together to realize our ideals.

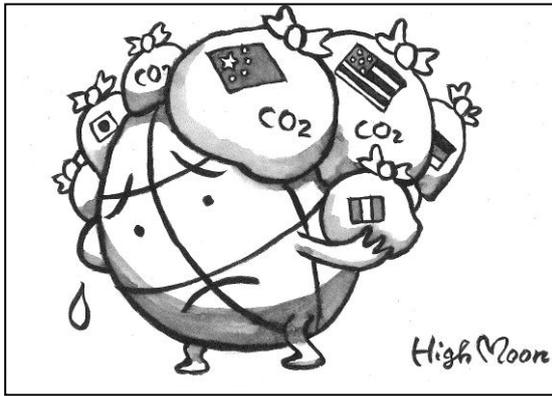
7<sup>th</sup> ICWMT

The 7<sup>th</sup> International Conference on Waste Management and Technology (ICWMT) was held in Beijing, China, on September 5-7, 2012. The conference brought together about 200 Asian and European experts who specialize in the research fields of electronic waste, hazardous waste, waste treatment technologies for sewage sludge, recycling economy, urban mining, and POPs control. The ICWMT conference, organized by Basel Convention Coordinating Centre for Asia and the Pacific, has been hitherto held six times, mostly in China. Waste management is an issue of the utmost urgency for China, whose economy is growing rapidly. Through the conference, however, I realized that China is beginning to achieve fruitful results mainly in the field of recycling technologies for electronic waste.

11<sup>th</sup> SWAPI

In conjunction with the 7<sup>th</sup> ICWMT, the 11<sup>th</sup> Expert Meeting on Solid Waste Management in Asia and Pacific Islands (SWAPI) was held at the same venue during the same time. Having started in 2005, SWAPI has been held every year with experts and researchers from various regions and countries to build networks for promoting proper waste management systems and 3R policies in the Asia-Pacific region. During the 1.5 days of SWAPI sessions, discussions were also had about how we would run and develop the organization. These focused on: 1) Revision of the so-called SWAPI Book, Solid Waste Management in Asia and Pacific Islands: Challenges and Strategic Solutions, 2) Decision to hold the 12<sup>th</sup> SWAPI in Tokyo on February 26-28, 2013, 3) Commitment of the Japan Society of Material Cycles and Waste Management (JSMCWM) to give continuous support for SWAPI activities as much as possible, and 4) Resolve to make the SWAPI conference a more open symposium to increase general participants.

(Shinichi Sakai)



I would like to unload the heavier luggage, if I can...

### Report of KSWM, spring 2012

The Korean Society of Waste Management held its spring symposium on May 10, 2012. The venue was Yonsei University's Wonju Campus. Wonju City is renowned for its rich history, culture and nature, and is only 1.5 hours by highway bus from Seoul.

This, the 16<sup>th</sup> *Special Symposium for Korea and Japan*, consisted of four lectures on disaster waste management and a hybrid poster/oral presentation session; with 27 presentations; 17 of which were from Japan and 10 were from Korea. Seventeen presentations were about final disposal and recycling, and the rest were about incineration, waste management and composting.

It was chaired jointly by Dr. Kitawaki Hidetoshi of Toyo Univ., head of international committee of JSSWM and Dr. Jae-Hyuk Hyun of Chungnam National Univ., vice-president of KSWM.

The first lecture was on "Disaster Waste Management in South Korea." Dr. Gil-Jong Oh of National Institute of Environmental Research gave an overview of the current situation of natural disasters and explained in more detail the management system for disaster waste, in particular for floods, which are a major problem in South Korea. He gave the deluge that hit Seoul in 2011 as an example. He also made some recommendations for disaster waste management policy, such as reviewing the disaster waste management plan, countermeasures to reduce the amount of waste generated by floods, sorting and treatment of flood waste, and necessity of cooperation among the central government, local communities, waste collection and treatment entities and the military.

The second lecture was on the "Role of Recycling in Disaster Waste Treatment—Case of the Great East Japan Earthquake" by Dr. Toshiaki Yoshioka of Tohoku Univ. Focusing on experiences following the March 11, 2011

earthquake, he discussed the status of disaster waste separation, collection and treatment and emphasized the roles and importance of waste separation and recycling. There is a market for recyclable waste from disasters when it is properly sorted at the first collection point. Sendai City is promoting its disaster waste management plan with a target recycling rate of 53%. Sendai City set three 1<sup>st</sup> storage sites and eight temporal storage sites for citizens right after the earthquake. Waste was strictly separated into burnable, non-burnable, metals, home appliances, waste containing asbestos and so on. Just over one year on from the disaster, in April 2012, the municipality had treated 19% of the enormous amount of disaster waste. Waste tires go to cement factories as fuel, wood waste goes to paper manufacturing factories and to farms as a substitute straw bedding for livestock, and tatami mats and waste plastics go to refuse paper and plastic fuel (RPF) plants. As for burnable waste, three temporary incinerators (480 tons/day of capacity in total) were constructed for treatment. Dr. Misuzu Asari of Kyoto Univ. announced that her book "Classification and Treatment Manual of Disaster Waste," based on the experience of the earthquake, has been published and the English version will be published soon.

The third lecture was "Radioactive Waste Management System in Korea" by Dr. Cheon-Woo Kim of Korea Hydro & Nuclear Power Co., Ltd. There are 21 active nuclear power plants (NPP), seven under construction and six planned in Korea. He also explained about the nuclear power policy, radioactive waste management, and spent nuclear fuel management. Safety in radioactive waste management is the most important and basic for policy in Korea. Current waste treatment methods for Low and Intermediate Level Waste (LILW) from nuclear power plants, radioactive isotope users and laboratories were explained. Wolsong Underground Facility which is planned to start operation from 2014 was introduced.

The fourth lecture was about "Management of Solid Waste Radioactively-Contaminated by the Fukushima Daiichi NPP" by Dr. Masato Yamada of the National Institute for Environmental Studies. He insisted that because the Fukushima Daiichi Nuclear Power Plant accident had caused such a terrible problem of radioactively contaminated solid waste, we must overcome this extremely difficult and lengthy ordeal by controlling radioactive materials safely and efficiently. He presented mechanisms of how the radioactively contaminated waste was generated by the Fukushima accident, standards for controlling radioactive waste,

basic physicochemical properties of radioactive cesium and control of radioactive cesium in the incineration process, based on the data from basic research and demonstration tests. Decontamination work is soon to get underway at the contaminated area, however, there are still difficult problems to be solved such as where to treat the highly contaminated waste resulting from this work.

(Mamoru Inoue)

**From SWAPI Expert  
- Review of Municipal Solid Waste (MSW)  
Management in Indonesia -**

Indonesia is a country located in South East Asia, which comprises more than 13,000 large and small islands. The country has more than 465 municipalities which consist of 14 metropolises, 15 large cities, 56 medium-sized cities, and 380 small cities. Indonesia is located at the equator, and it has two seasons a year (dry and rainy), and, because of the monsoon rains, each season lasts six months. The rainy season is also the fruit season and fruits produce an enormous amount of waste in the city.

The principal source of MSW in Indonesia is households, which generate about 50 to 60 % (wet weight) of the total quantity of MSW per day. According to a survey of the Bandung area in 2005, the estimated MSW generated in this area was 0.59 kg/capita/day. In a questionnaire survey conducted in 2007, it was estimated that MSW generation of all municipalities in Indonesia in 2006 was 38.5 million tonnes.

The amount of MSW is normally dominated by organic matter (more than 55% by weight) that mainly comes from food waste. This amount contributes to about 65% of the water content of MSW. MSW in Indonesia consists mainly of food scraps, yard waste, and wrapping materials. It is a mixture of all kinds of waste, organic and non-organic, recyclable and non-recyclable, even hazardous and non-hazardous materials. Other sources of waste are traditional markets, commercial activities/areas, industries (non-hazardous categories), public gardens and streets. Plastic and paper are the two next commonest items. They mainly comprise packaging/wrapping materials of food, beverages, etc. Wood and textiles are the next two important components. According to a survey in 2007 of Bandung metropolitan area, the average amount of organic MSW taken at transfer stations was around 60% (by weight). The amount of inorganic waste was around 40% (by

weight), of which about 6% (by weight) was classified as recyclable inorganic components.

Waste collection is the first subsystem of the technical system of MSW management which is part of the municipalities' services. Some households can afford a waste bin made of concrete, plastic or steel built in front of their houses. Others simply store their waste in plastic bags or in used cartons or boxes in front of their houses. These wastes are then picked up by a community collector cart, a small truck, etc. depending on the arrangement in the neighbourhood community. Some large and medium-sized cities have been contracting out part of the collection and transportation to private firms. In the year 2006, collection of MSW in Indonesia covered about 130 million inhabitants, or 56% of the total population.

The waste collection from households to transfer stations is normally organized by the respective neighbourhoods. The system is handled and funded by the communities, who can afford the expenses associated with the activities. Such communities employ a person who usually lives near the settlement. Almost all these waste crews perform valuable waste segregation. In many cases, the waste collected is already sorted by the generator and given to these waste crews. All wastes in the transfer depot, along with non-residential wastes, will be subsequently transported by trucks to landfills by city cleansing division crews.

Most of the existing MSW management systems in Indonesian municipalities have relied on the existence of landfills, of which most are open dumping. There are several small-scale incinerators in operation in different cities, each with a capacity of about 100-200 kg/hour and operating eight hours per-day. Composting of organic waste has also been found as part of waste treatment.

In 2008, Indonesia introduced the Law of Solid Waste Management (Law No. 18/2008). Some of the central issues of Law No. 18/2008 are as follows:

- Extended producers' responsibility (EPR).
- Application of waste reuse and recycling through the entire chain of waste transport, from origin to final disposal.
- Selection of waste processing and dumping technologies that are safe and healthy, and conform to the Indonesian situation. Open dumping and open burning are forbidden.
- Prohibition on importing waste into Indonesian

territories or mixing waste with other hazardous wastes.

One of the important mandates in Law No. 18/2008 is the implementation of waste recycling. The basic aim of this law is waste reduction through the 3Rs as the first priority, and the next priority is waste handling. All of the involved parties agreed that the new concept is the best available measure to reduce wastes, and active involvement on the part of the community and other waste generators to reduce waste volume is the key to the success of any waste management system.

A national policy has been established with an initial target of: reduction of waste as much as possible starting from its sources. The government has set a target of waste reduction of up to 20% by the year 2014. Some strategies besides 3R education and campaigns have also been formulated to promote the reduction of waste from its sources, starting with households. The Ministry of Environment and the Ministry of Public Works facilitate recycling activities performed in several regions in the country. The top priority in the implementation of these activities is the recycling of organic wastes into either individual or communal level composting facilities.

(Enri Damanhuri)

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Jalan Ganesa 10 - Bandung 40132, Indonesia*

### **Announcement**

#### **Global Partnership on Waste Management Biennium Conference**

**Date:** 5-6, November 2012

**Venue:** KKR hotel Osaka, Japan

**Sponsored by:** UNEP-IETC

**Details:**<http://gec.jp/main.nsf/jp/Activities-IETC-gpwm2012>

#### **Toward low carbon society**

##### **- Feed-in Tariff (FIT) and Waste power generation-**

**Date and Venue:** November 13, 2012 (Osaka),  
November 16, 2012 (Tokyo)

**Sponsored by:** Tottori Univ and Research Institute of  
Solid Waste Management Engineering

**Detail:**[http://www.riswme.co.jp/cgi-bin/news/index.cgi?  
c=zoom&pk=19](http://www.riswme.co.jp/cgi-bin/news/index.cgi?c=zoom&pk=19)

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Current Members of JSMCWM as of April 10, 2012	
Regular Members	2,324
Fellow	26
Senior	7
Honorary member	7
Students	180
Public Institutions	89
Supporting companies	122
NPOs	5
Individual	6
Regular member	25
Discount member	24
Total	2,820

**NEWSLETTER NO.81, October, 2012**

Published by: Akiko Kida, President,  
Japan Society of Material Cycle and Waste Management  
Edited by: Prof. Shin-ichi Sakai, Chairman,  
International Relations Committee

Edited and design by: Tsunako Matsumoto, Yuko Aoki  
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