

## **Creative Session 1: March 14, 18:15 –20:10 (JST)**

### ***Digital Transformation (DX) in the field of waste management towards the Circular Economy (CE)***

The recycling and waste management sectors, which have traditionally been dominated by written contracts and paper-based manifest system, is increasingly moving towards the realization of digital transformation (DX) in their services. They aim to improve operational efficiency and productivity by utilizing AI and IoT technologies, increasing transportation efficiency and recycling sophistication, introducing remote monitoring and automatic control technologies, and digitizing administrative procedures.

In the Southeast Asian region, some countries, such as Thailand, have introduced online applications and electronic manifest systems for industrial waste-related permits and approvals, but in many countries, analogue data management system is still the norm, and creating obstacles to smooth law enforcement and administrative monitoring. In addition, from the viewpoint of prevention of inappropriate disposal, compliance, and reduction of administrative costs, waste generators are also required to strengthen traceability and establish an efficient data management system.

In light of these circumstances, this session will deliver the latest findings from the perspectives of a variety of stakeholders such as industrial and governmental sectors and academia on the current status, challenges, needs, case studies and prospects for smart resource circulation systems in the context of DX incorporated into waste management.

### **Programme**

#### **Session Chair:**

Dr. Mushtaq Ahmed Memon, Regional Coordinator for Regional Coordinator for Chemicals and Pollution Action, United Nations Environment Programme, Asia Pacific Regional Office, Thailand

#### **18:15-18:25**

Keynote

Dr Naveed Anwar, Vice President of Knowledge Management, Asian Institute of Technology (AIT)

#### **18:25-18:40**

Digital application towards plastic circularity

Ms. Sayaka Ono, Department of Energy, Environment, and Climate, School of Environment, Resources and Development, Asian Institute of Technology

**18:40-18:55**

Role of digital platform in material circularization

Ms. Mayuree Aroonwaranon, Co-Founder and CEO of GEPP

**18:55-19:10**

Digital innovations for circularity – examples from Europe and Africa

Mr. Patrick Schröder, Senior Research Fellow, Environment and Society Programme

**19:10-19:25**

Practice of creating sustainable Circular Value Chain

Mr. Teruyuki Kawano, ecommit CEO & founder

**19:25-19:40**

Smart Cities & Extended Producer Responsibility (EPR): AI & Data for Better Marine Pollution Policy without the Human Eye

Mr. Benjamin Butcher, Global Business Unit, Global Relations Division, NEC Corporation

**19:40-20:10**

Discussion

## **Creative Session 2: March 15, 10:00 –12:00 (JST)**

### ***Disaster Waste Management - Developing a “Simulation-based training tool”***

Organized by the Japan Society of Material Cycles and Waste Management (JSMCWM)

Impacts from disasters become severer due to climate change, and the preparedness and response to waste generated by such disasters have become increasingly important. In order to support the implementation of the Contingency Plan (CP) and the Management Plan (MP) for Disaster Waste Management (DWM), the JSMCWM is developing a “Simulation-based training tool” based upon the experience in Japan.

In this session, we invite several academia and specialists on DWM from Asia. And they try to test the “Simulation-based training tool”. Then we discuss the policies to modify the tool for use in Asia and the Pacific, reflecting the current status, issues, and challenges of the DWM and the general MSW (Municipal Solid Waste).

In addition, we will discuss how to implement such a tool by collaborating with various stakeholders of DWM.

#### **Programme**

##### **Coordinator:**

- the Japan Society of Material Cycles and Waste Management (JSMCWM)

##### **Participants:**

- Indonesia : Dr. Maryono (Diponegoro University)
- Nepal : Dr. Nawa Raj Khatiwada (Nepal Development Research Institute (NDRI))
- Philippines : Prof. Maria Antonia N. Tanchuling (University of the Philippines Diliman)

##### **10:00-10:10**

Introduction and welcome  
Introduction of the proposed tool

##### **10:10-10:50**

Exercise session

- First try to develop a flow chart of DWM

- Inputs from the coordinator
- Second try to develop a flow chart of DWM

**10:50-11:30**

Discussion:

- Points to be improved by considering the current status in Asia and the Pacific
- Expected users of the tool – Stakeholders network for DWM-

**11:30-11:50**

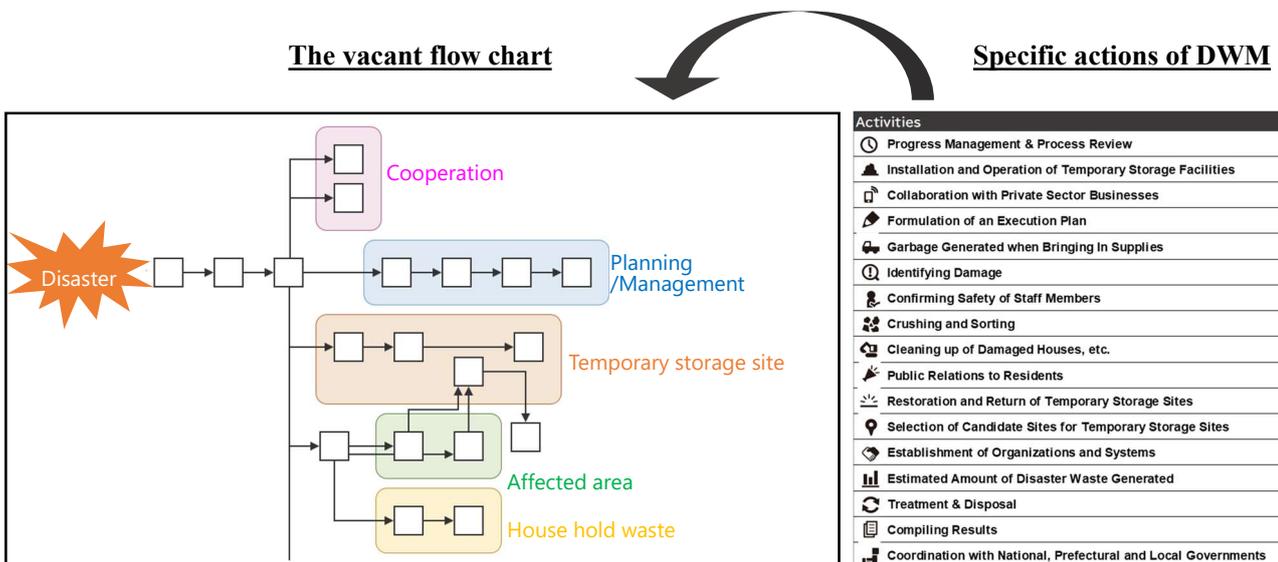
Introducing the flow in Japan

**11:50-12:00**

Wrap up

### Image of the tool

- The vacant flow chart (Left) tries to describe the basic work flow of DWM. The specific activities are showed by vacant boxes.
- And the list (Right) shows the specific actions of DWM.
- The user tries to fill the vacant boxes by applying specific activities from the list.



## ***Creative Session 3: March 15, 18:15 –19:45 (JST)***

### ***Countdown to Expo 2025 Osaka Kansai Sustainable Procurement, Material Management and Resource Circulation in Megaevents***

World Expo is a worldwide event bringing together nations to enable people and nations throughout the world learn by exchanging ideas, showing innovation, and finding answers to urgent global concerns, which takes place every five years. Despite all these positive impacts, large-scale events may have major negative environmental implications due to the high demand for resources and possible waste generated during the preparation and execution of the event. To address global shared concerns, the worldwide community has committed to attaining the Sustainable Development Goals (SDGs) by 2030. The importance of the Expo is also in line with the attempts to achieve the SDGs.

The upcoming Expo 2025 Osaka Kansai includes green procurement, zero waste, and sustainable meetings from the design stage to fulfill the aforementioned aims with the least amount of environmental effect. The Expo itself is trying to embody the resource circulation society. In achieving so, existing buying procedures and rules must be evaluated and assessed before implementing a green procurement program. A life cycle evaluation of a products or service's environmental implications is necessary, as well as the development of a set of environmental criteria for purchasing and contracting decisions. Green procurement initiatives may help decrease costs and waste while also influencing production, markets, pricing, available services, and organizational behavior.

Therefore, the objective of this session is to share activities from the Expo's planning phase in order to accelerate resource circulation and develop a sustainable society, as well as to expend resource circulation initiatives in order to leave a legacy of the Expo, and finally to promote the Expo across the world. The session will also serve as a kick-off for further collaboration between the 3RINCs platform and Expo to promote resource circulation society.

## **Programme**

### **Session Chair:**

Dr. Misuzu Asari, Associate Professor, Graduate School of Global Environmental Studies, Kyoto University

### **18:15-18:20**

Introduction of the session

Dr. Misuzu Asari, Associate Professor, Graduate School of Global Environmental Studies, Kyoto University

**18:20-18:40**

EXPO 2025 Osaka, Kansai, Japan and Direction of its Sustainability-3R, Carbon Neutral

Mr. Yasushi Nagami, Executive Director, Sustainability Department,  
Japan Association for the 2025 World Exposition

**18:40-19:00**

Demonstration project for recycling carbon dioxide in exhaust gas from an incinerator

Ms. Sachiko Ochi, General Manager, Hitachi Zosen Corporation

**19:00-19:20**

Experiences from Thailand

Ms. Pat Satkhum, Senior Manager, Sustainability Development Section,  
MICE Capabilities Department, Thailand Convention and Exhibition  
Bureau (TCEB)

**19:20-19:45**

Discussion

## **Creative Session 4: March 16, 18:15 –19:45 (JST)**

### ***Greening Health Care Waste Management: Policies and Good Practices***

The provision of sustainable health care waste management (HCWM) has been receiving increasing global attention. The spread of COVID-19 has significantly posed a risk of transmission of infection in many countries, particularly in developing nations where proper HCWM is not in place. Recent studies also show climate footprint of the health care sector is equivalent to 4.4% of global net emissions (Health Care without Harm and ARUP, 2019). A lack of infrastructure, inadequate budgets, supportive policy and regulation, and capacity gaps make it difficult to achieve environmentally sound HCWM, which underscore the urgency of realizing sustainable and inclusive HCWM systems and green infrastructure (UNEP and IGES, 2020). At the same time, a group of 50 countries at the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow has made a new commitment to take concrete steps towards creating green, climate-resilient and low-carbon health systems in response to the Sustainable Development Goals (SDGs) and the Paris Agreement.

This special session invites several researchers, practitioners and businesses entrepreneurs in the field of HCWM to present and discuss policies and good practices of greening health infrastructure based on their recent research work and operation. We highly expect constructive discussion between researchers/entrepreneurs and participants through the special session.

### **Programme**

#### **Session Chair:**

Dr. Premakumara Jagath Dickella Gamaralalage, Director, IGES-CCET, Japan

#### **18:15-18:25**

***Opening Remarks – Greening Health Care System and its Contribution to the Global Climate Crisis and Opportunities for Action***, Ms. Ruth Stringer, International Science and Policy Coordinator, Health Care without Harm

## **Presentations**

**18:25-18:40**

**Title:** *Greening Health Infrastructure: Rapid Assessment of Policies and Practices on Health Care Waste Management in Ethiopia and Kenya*

**Speaker:** Mr. Chengchen Qian, UNEP, Geneva

**Commentator:** Mr. Evans Kituyi, An Independent consultant, Kenya

**18:40-18:55**

**Title:** *Health Care Waste Management towards the Circular Economy: A Case Study at Tribhuvan University Teaching Hospital in Nepal*

**Speaker:** Mr. Mahesh Nakarmi, Executive Director, HECAF360, Nepal

**Commentator:** Ms. Miho Hayashi, Programme Manager, IGES-CCET, Japan

**18:55-19:10**

**Title:** *Pilot experiment in introducing non-burnable technologies to handle health care waste in Mandaue City, Philippines.*

**Speaker:** Mr. Takeshi Konishi, Senior Managing Director, GUUN Co., Ltd., Japan

**Commentator:** Ms. Misato Delley, Associate Expert, UNEP-IETC, Japan

**19:10-19:25**

**Title:** *Law Enforcement on Illegal Dumping and Illegal Treatment of Medical Waste in Japan*

**Speaker:** Ms. Miwa Tatsuno, Programme Coordinator, IGES-CCET, Japan

**Commentator:** Prof. Hiroki Hashizume, Tama University, Japan

**19:25-19:45**

**Q&A and Closing Remarks**

## **Creative Session 5: March 17, 18:15 –19:40 (JST)**

### ***Latest development and future perspectives on mercury waste management***

The Minamata Convention on Mercury entered into force in August 2017, with the objective to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The Article 11 of the Convention requires its Parties to ensure the environmentally sound management (ESM) of mercury wastes. Most developing countries, however, have been facing challenges with capacities to manage mercury wastes in an environmentally sound manner.

Parties and relevant stakeholders such as international agencies, NGOs, private sectors, and academia have been working together to control the anthropogenic emissions and releases of mercury throughout its lifecycle, including the production, storage, use, and waste management as well as raise public awareness and build capacities. For example, the UNEP Global Mercury Partnership is structured around eight priorities for action (or partnership areas) that are reflective of major source categories.

The Waste Management Area (WMA), co-led by Dr. Misuzu Asari from Kyoto University and the Ministry of the Environment, Japan, is the area that has undertaken various activities with its objective to promote the ESM of mercury wastes by developing and disseminating relevant materials, enhancing capacities and awareness and providing specific solutions at the global, regional, national, and local levels.

The objective of this session is to share recent activities of the WMA and provide future outlook on mercury wastes management in line with the relevant international discussions from the perspective of policy, standards, technologies and services, capacity development, outreach and networking among stakeholders.

### **Programme**

#### **Session Chair:**

Ms. Stéphanie Laruelle, Programme Management Officer, Chemicals and Health Branch, Knowledge and Risk Unit, UNEP

#### **18:15-18:30**

Opening remarks and Introduction of Global Mercury Partnership

Ms. Stéphanie Laruelle, Programme Management Officer, Chemicals and Health Branch, Knowledge and Risk Unit, UNEP

#### **18:30-18:50**

Waste Management Area of the UNEP Global Mercury Partnership and its work

Ms. Taeko Takahashi, EX Research Institute Ltd.

**18:50-19:10**

ISWA role on mercury waste management

Mr. Terrence Thompson, International Solid Waste Association (ISWA)

**19:10-19:30**

Mercury science, regulation and waste management

Mr. Mick Saito, UNEP-Regional Office for Asia and the Pacific

**19:30-19:40**

Closing remarks

Ms. Junko Nishikawa, Ministry of the Environment, Government of Japan

**References:**

URL:

<http://www.env.go.jp/chemi/tmms/husigi.html>



<http://www.env.go.jp/chemi/tmms/husigi-sk.html>

