Introduction

Since its inception in 2011, the International E-Waste Management Network (IEMN) has been promoting e-waste awareness and sharing best practices in e-waste management with countries around the world. IEMN was founded with the aim to establish a global capacity for the environmentally sound management of waste electrical and electronic equipment (WEEE), or commonly known as e-waste. IEMN recognizes the growing problem of e-waste, as technological advancement of electronic products is ever changing on a daily basis and the lifespan of electronic product is becoming shorter and shorter. Therefore, IEMN calls for actions to address this issue and conducts annual training workshops to improve e-waste management through policy guidance and technology sharing. Currently, IEMN members consist of governmental and non-governmental representatives from Argentina, Brazil, Cambodia, Chile, Colombia, Egypt, Malaysia, the Philippines, Taiwan, Thailand, Tuvalu, US, and Vietnam. The network welcomes the participation of any country that wishes to contribute to the solutions to e-waste problems.

The 2019 IEMN Workshop was held from December 2 to 4 in Bangkok, Thailand, and gathered over 70 participants from the government, academia, and industry sectors. The workshop reflected the importance of the United Nation Sustainable Development Goals (UN SDGs), incorporated SDGs elements into the workshop, and stressed the importance of SDG 17, partnership for the goals, in order to achieve an effective e-waste management through global partnership. The workshop also allowed members to disclose the status of e-waste management in their countries and provided an opportunity for information and support exchanges.

Country Update
In majority of the developing Southeast Asian countries, there is still a lack of sound e-waste management system in place; e-waste treatment is often done through the informal sector. However, some countries have begun to address the issue of e-waste through policy formulation and regulation proposals. For example, Thailand submitted a draft act on e-waste management to their National Legislative Assembly in January and proposed an e-waste
Management measure to the Sub-Committee on Supervision of Operations in September. Malaysia will begin registration of manufacturers, importers, collectors, and retailers and conduct consultations with relevant stakeholders on inventory development in 2020. Some other countries, such as Cambodia and Brazil, have approved national policy on e-waste treatment. Overall, many countries have requested more best practices of e-waste management to be shared by the IEMN.

During the workshop, participants were divided into three groups and openly discussed on e-waste management at three levels: policies, projects and collaboration. Key takeaways of the group discussion are listed below.

**Policies**
- Proven science should be converted into actionable policy and implementable measures e.g. definitive penalty systems, economic incentives, training programs, educational tools.
- Governments need to develop enforcement measures and monitoring tools to accurately track progress of e-waste management.
- Societies should be more engaged in promoting public awareness of e-waste through environmental education.
- Training skills and educational quality of workers in the e-waste sectors need improvement.

**Projects**
- Participants agreed to establish a project titled “Sustainable E-Waste Management Towards Achieving a Green Society” composing of four priority areas: 1. coordination among stakeholders; 2. system development and improvement; 3. communication, education, promotion and awareness (CEPA); and 4. technology transfer.
- The Project would be divided into short-, mid-, and long-term goals. Short term goals include capacity building, training courses, and workshops. Mid-term goals include technology transfer and public awareness. Long term goals include formalizing the informal sector, promote value-added resources.
- Possible project funding sources could be Global Environmental Fund, United Nations Environmental Programme, United Nations Industrial Development Organization, Japan International Cooperation Agency etc.

**Collaborations**
The collaboration needed includes the formats as follows.
- Sharing recycling technology between e-waste recyclers and government.
- Exchange of best practices in e-waste management among partners.
- Developing training material to educate workers in the e-waste sector.
- Maintaining periodic communication between competent authorities via emails, video conference calls, webinars and instant messaging.
- Engagement with local communities to collaborate on priority issues in e-waste.