11th Regional 3R and Circular Economy Forum in Asia and the Pacific PLENARY SESSION 4 Circular Economy and Small and Medium Enterprises (SMEs)

Role of SMEs in Circular Economy: Challenges and Opportunities

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Framework for Circular Economy for the ASEAN Economic Community (1)

- Putting in place a strong regional ecosystem for eco innovation in the ASEAN region is very important, to strengthen and support pioneering entrepreneurs, start-ups, micro, small and medium enterprises (MSMEs), and wellestablished business entities. (a sentence in "Strategic Goal 2. Resource Efficiency"
- CE initiatives shall be tradeenabling and promote new integrated markets and investment opportunities, including for specialised goods and services, **MSMEs**, amongst others. (a sentence in Guiding Principle 1: Promote **ASEAN** integration and the development of regional value chains.)

Framework for Circular Economy for the ASEAN Economic Community (2)

• "Develop and promote the utilisation of MRAs for product and service standards embedding CE principles, in accordance with prevailing international regulations, standards, and practices, where these exist, including those of MSMEs.

(A proposed initiatives under Strategic Priority 1: Standard Harmonisation and Mutual Recognition of Circular Products and Services) • Consider the use of risk mitigants and investment enablers to encourage MSMEs and informal sector businesses to adopt CE principles.

(A proposed initiatives under Strategic Priority 4: Competitive Sustainable Finance and Innovative ESG Investments

Various Business Models

- Recycling
 - Junk shop
 - Buying and selling recyclable waste
 - Material recycling
 - plastics, paper, metals and others
 - Using Digital Technology for Recycling
 - Rekosystem : Jakarta-based startup developed automated collection box for plastic bottle.
 - GEPP Apps: App for getting recyclable waste collection services in Thailand.

Reduce

- Provide alternative to option to single use plastics and others
 - Biodegradable materials
- Reuse
 - Refill shop



The use of leaves and stem to tie the vegetables in Vietnam, April 2019.

Reuse: Refill

- Refill business
 - Consumer bring the bottles buying only contents without packaging and container.
- Challenge
 - In some country, by the regulation on food safety, refill is not allowed to refill of drinks or foods.



Lay Dai Refill Starion, a refill shop in Ho Chi Minh City (Photo by Michikazu Kojima, October 2022)

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Challenge: Leakage of Plastic from Recycling Industry





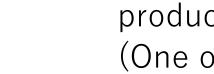
Plastic waste are stocked on the soil. Plastic waste are not well managed. Heavy rain or strong wind may cause leakage of plastics from the stockyard. Photo by Michikazu Kojima, in 2013 Plastic particles in the surface of a pond near plastic recycling industries, photo by M. Kojima, 2004.



Assessing the Readiness for Industry 4.0 and the Circular Economy

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Necessity of Capacity Development

"Encourage businesses, including small and medium sized enterprises (SMEs), to increase resource efficiency and ecoproductivity, create decent works, and improve circular practices through applying standards, clean technologies, and cleaner production"

(One of assessing framework focuses on SMEs)



Some Capacity Development Program

- Cleaner Production
 - Indonesia: Resource Efficient and Cleaner Production (RECP)
 - Vietnam: Vietnam Cleaner Production Centre
 - Philippines: Department of Science and Technology
 - Malaysia: SIRIM
 - UN, ADB, GIZ, JICA and others have supported Cleaner Production in Asia
- ASEAN-Japan Centre, collaborated with Circular Economy Development in Vietnam National University of Ho Chi Minh City conducted a series of online Workshops entitled "Circular Economy (CE) Capacity Building for Micro, Small, and Medium Enterprises (MSMEs) in ASEAN" from November 30th, to December 21, 2022.

References

- Anbumozhi, Venkatachalam, Krishnamurthy Ramanathan and Heinrich Wyes (2020) Assessing the Readiness for Industry 4.0 and the Circular Economy, Economic Research Institute for ASEAN and East Asia.
- ASEAN (2021) Framework for Circular Economy for the ASEAN Economic Community.