

Environment Unit



Research Project

- **Regional Waste Management – Inter-Municipal Cooperation and Public–Private Partnership**

In most of the Asian countries solid waste management is one of the major responsibilities of local governments. However, most local governments in developing Asian countries do not have enough environmentally sound waste management facilities. A huge amount of municipal solid waste is not collected properly and usually dumped in rivers or open spaces. Some countries

are trying to close open dumping and use sanitary landfills and and some countries such as Thailand, Malaysia, Indonesia, Viet Nam, and the Philippines are also willing to introduce Waste to Energy technology. There are economies of scale in the construction of such facilities.

Economies of scale in waste were measured by analysing data on cost of waste management in ASEAN countries and others. Types of regional waste management schemes were identified through case studies on regional waste management in Japan, the Philippines, Thailand, Indonesia, and other countries. To attract private investment in waste management

facilities, it is important to secure sufficient volumes of waste feeding to the facilities, which makes it easier for big cities to get investment from the private sector. Small cities on their own may not be able to obtain private sector investment. Hence, regional waste management schemes are crucial for small local governments to attract private sector investment in waste management.

- **Advancing ASEAN Roadmap to a Circular Economy**

The current linear production process or the take-make-dispose economic model leads to the waste of raw materials and resources, which ASEAN can no longer afford. To maintain their competitiveness ASEAN Member States have no choice but to move toward a more circular economic model under which the value of the products and materials is maintained in the economy for as long as possible and waste production is minimised. This study had three components. Firstly, based on an implicit and explicit benchmarking process on Finland, Belgium, Germany, and Japan, a standard format of the constituent policies and target template of data/information was collected and spelled out for ASEAN Member States. Secondly, ERIA prepared circular vision blueprints that integrated Industry 4.0 technologies for three groups of countries. Thirdly, basic information collected from literature surveys giving insights into the Science Technology and Innovation (STI) interface approaches was taken into consideration in the agriculture sector at different stages of the life cycle to foster a circular economy at the sectoral level.

Other Project

- **Regional Knowledge Centre for Marine Plastic Debris**

Various documents emphasising the importance of sharing knowledge and capacity development related to marine plastic debris have been produced by the United Nations, the Association of Southeast Asian Nations (ASEAN), and others. One of them is the ASEAN+3 Marine Plastics Debris Cooperative Action Initiative, which states the importance of sharing knowledge and capacity development by best-use of existing institutions such as the Economic Research Institute for ASEAN and East Asia (ERIA). The initiative was welcomed by the ASEAN+3 Summit (10 ASEAN Member States, China, Japan, and Republic of Korea) in November 2018. With support from the Government of Japan and others, on 1 October 2019 ERIA established the Regional Knowledge Center for Marine Plastic Debris (RKC-MPD). The first step was the establishment by RKC-MPD of a website that shares action plans, roadmap, laws, and various policies to reduce marine plastic debris in ASEAN+3 countries. RKC-MPD is planning to enrich the contents of the website and expand activities in the areas of capacity building, awareness raising, and research.