

Thematic Sub-section: Chemical and Hazardous Waste

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Table of contents



- 1. Regional overview in Asia and the Pacific**
- 2. Overall assessment on national policies, regulations, standards and inventory in Asia and the Pacific**
- 3. Circular economic opportunities of chemical and hazardous waste**
- 4. Conclusion and way forward**

1 Regional overview in Asia and the Pacific

Definition

- The term “**chemical hazardous waste**” is not defined in any acts or regulations in Asia and the Pacific (A&P) countries. Chemical hazardous waste is usually one entry of hazardous waste.
- For most countries but island countries, the term “hazardous waste” is available.

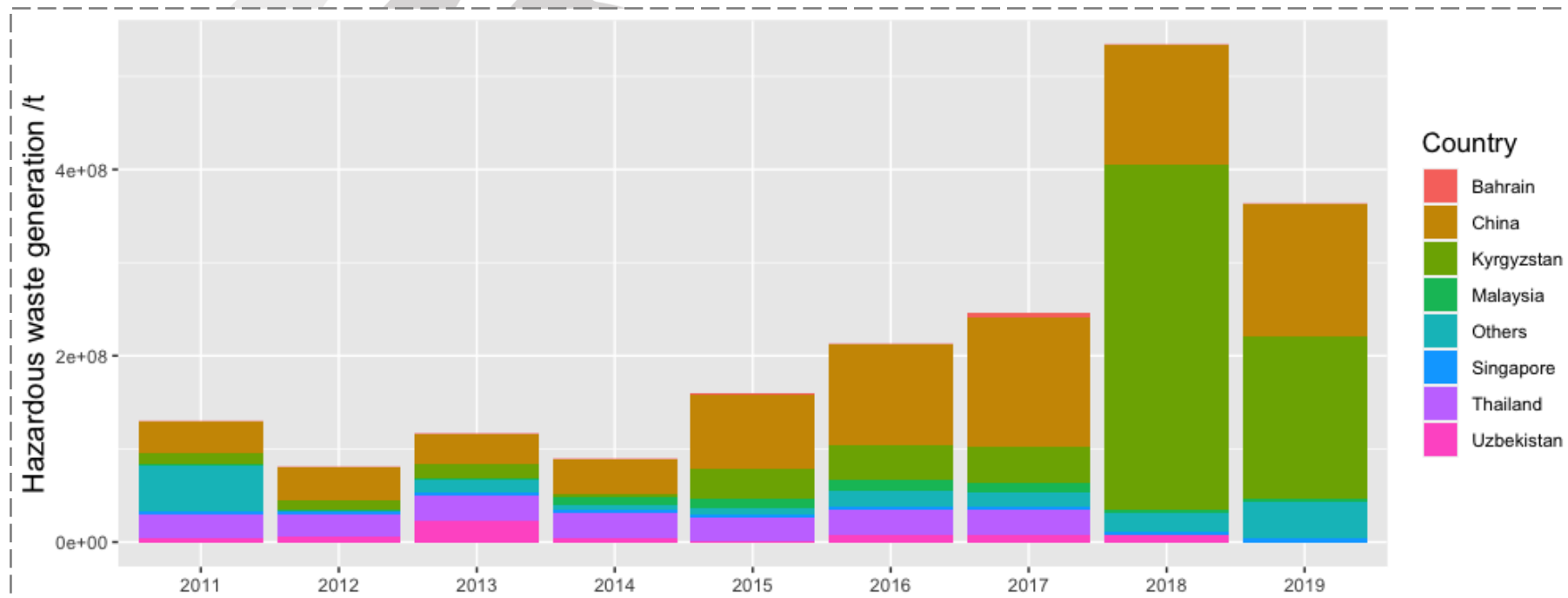
Types of chemical and hazardous waste by sources

- Countries in the A&P region do not separate chemical waste as a major kind of waste. It's usually managed under hazardous waste.
- Different countries have their own classification standards for chemical and hazardous waste, some are aligned with the Basel Convention. Sources can include industrial, agricultural, medical, household and so on.

1 Regional overview in Asia and the Pacific

Quantification and generation of chemical and hazardous waste in the region

- Hazardous wastes generation in the A&P region exhibited **an overall rise from 2011 to 2019**.
- P. R. China shared a considerable part of the total generation of hazardous wastes in A&P region.
- In 2018, Kyrgyzstan had a sudden increase in hazardous waste generation and accounted for the largest part of hazardous wastes generation, which is 69.57%.
- Thailand, Malaysia, and Uzbekistan also held a significant part of the total generation of hazardous wastes.

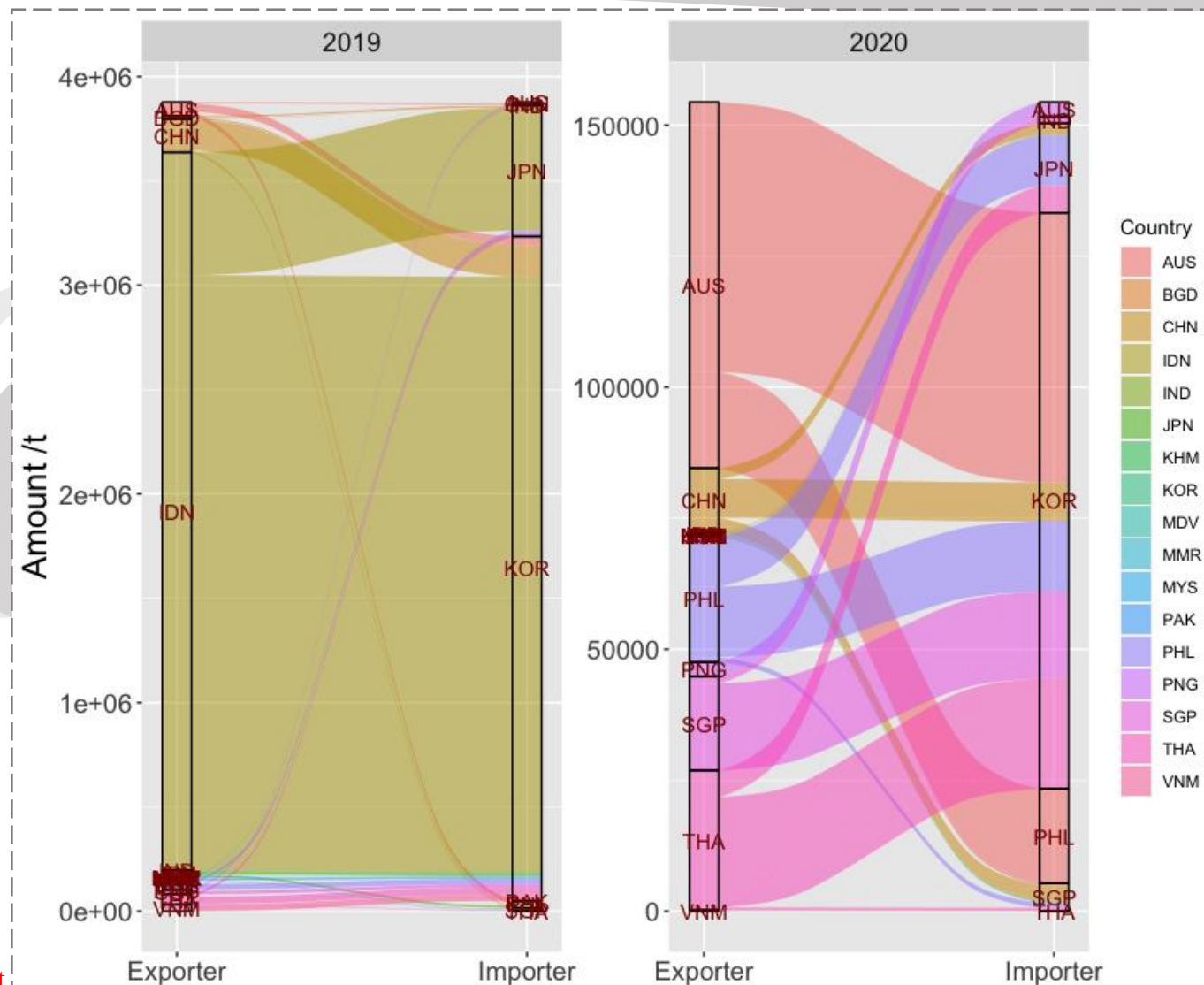


1 Regional overview in Asia and the Pacific

Chemical and hazardous waste trade in the region

- In 2019, Indonesia was the biggest exporter, while in 2020 Australia took the role.
- Republic of Korea (3,183,849 t in 2019) and Japan (626,683 t in 2019), the most developed countries in the region, were the biggest importers. Most hazardous wastes from other A&P countries were exported to these two countries.
- Other big importers included the Philippines (34,516 t in 2019), Singapore (13,954 t in 2019), and Indonesia (11,215 t in 2019).

Source: Basel Convention National Report



2 Overall assessment on national policies and inventory in the A&P

National policies and technical gaps

- In the A&P region, more than 25 countries have developed hazardous waste classification systems or catalogues to achieve sound hazardous waste management, while some countries still have challenging issues in policies and regulations.
- **In Viet Nam and Brunei Darussalam**, there is no national inventory with official data on hazardous waste;
- **In Sri Lanka**, there is no facility to dispose certain categories of hazardous waste;
- **In Thailand**, agency cooperation, inspection and monitoring technologies are ignorant of waste producers or processors in the details of notifications or guidelines;
- **In Bangladesh**, regulations regarding hazardous waste exist, but the enforcement is of concern. There is no secured landfill site available for disposal of hazardous industrial waste, and also no facility for treatment and recycling of hazardous waste.

2 Overall assessment on national policies and inventory in the A&P

Occupational safety and health standards of waste workers

- Sustainable development goal 3 (SDG3) is “Ensure healthy lives and promote well-being for all at all ages”.
- Labor standards embedded in waste management contracts (in particular safety of workers) is set as an indicator to the Ha Noi 3R Goal 23.
- **Many countries formulated regulatory of occupational health and safety standards to protect informal and formal workers.**
 - In the Republic of Korea, **the Occupational Safety and Health Act** was promulgated to regulate the use of chemicals in workplace with a goal of protecting workers from exposure to hazardous chemicals.
 - WHO released *The Health and Safety Practices for Health-care Personnel and Waste Workers* , containing the standards of waste worker’s protection.

3 Circular economic opportunities of chemical and hazardous waste

3R economic opportunities in chemical and hazardous waste

- Economic opportunities from chemical hazardous waste are **scarcely observed** in the region. In some Asian countries, advanced finesses have been performed to improve green product or energy efficiency.

Japan: “Eco-Mark”, a product standard system, has been applied to product, and it enables consumer to select environmentally-sound product.

Singapore: National Environment Agency launched the **Mandatory Energy Labelling Scheme (MELS)** help consumers **compare the energy efficiency of energy consuming products**. To raise the average efficiency of appliances in the market, some **must meet the Minimum Energy Performance Standards (MEPS)**. This helps to protect consumers from being locked into the high energy costs of operating inefficient appliances.

3 Circular economic opportunities of chemical and hazardous waste

Amount of illegal dumping /inappropriate disposal and its sites

- Barely no data on illegal dumping or inappropriate disposal available.
- In countries with developed legislation, **some specified actions have been launched to fight against illegal activities on hazardous waste, but illegal activities of open dumping are still common in the A&P region.**

Japan: the total number of illegal dumping cases in 2018 was 131. Ministry of the Environment continues to expand illegal dumping eradication campaign and strength monitoring, **dispatch expert in waste regulations into local government for advising and consulting.**

Cambodia: provincial **towns and urban** areas still do not have solid waste collection services. Each **household manages its own waste**, through various illegal disposal.

The Philippines: due to lack of technical and financial constraints, **many enterprises** are still **operating illegal disposal facility**. It is difficult to collect the amount of waste disposed of at national level.

Bangladesh: **wastes illegally dumped by foreign ships** were transferred into the territorial seas of Bangladesh.

3 Circular economic opportunities of chemical and hazardous waste

Treatment technology, methods and capacity, and final disposal

- For most countries in the A&P region, not enough facilities are available for hazardous waste disposal currently. The disposal capacity cannot correspond to the generation of hazardous waste in many countries.
- In South Asia, the waste collection coverage is about 51%, on average. The service coverage highly varies by county and city .
- Countries in the A&P region are **trending to put efforts on eliminating improper disposal of hazardous waste.**

3 Circular economic opportunities of chemical and hazardous waste

3Rs for reducing negative environmental impacts

- The level of management **varies largely from country to country**.
- Japan, China, Australia, South Korea, Bangladesh, Singapore, and Thailand have **sound regulations on the management of hazardous waste**. Classification is clear. Enough customs officers for controlling the TBM. Cooperative activities are performing well.
- India, Indonesia, Cambodia, Malaysia, Myanmar, Bhutan, F. S. Micronesia, the Philippines, Sri Lanka, and Viet Nam have **partly implemented 3R policies on hazardous waste management**. Country performances vary largely in classification, customs workers, and cooperative activities. The management level in these countries is not good enough. Some countries claim that capacity building is ongoing.
- For other countries, especially countries in the Pacific, **no specification on hazardous wastes has been issued**. Hazardous wastes are usually managed with municipal waste.

4 Conclusion and way forward

Conclusions

- The achievement of Ha Noi 3R Goals (9, 14, and 26 are related to hazardous waste) manifests an obvious imbalance in Asia and the Pacific region.



4 Conclusion and way forward

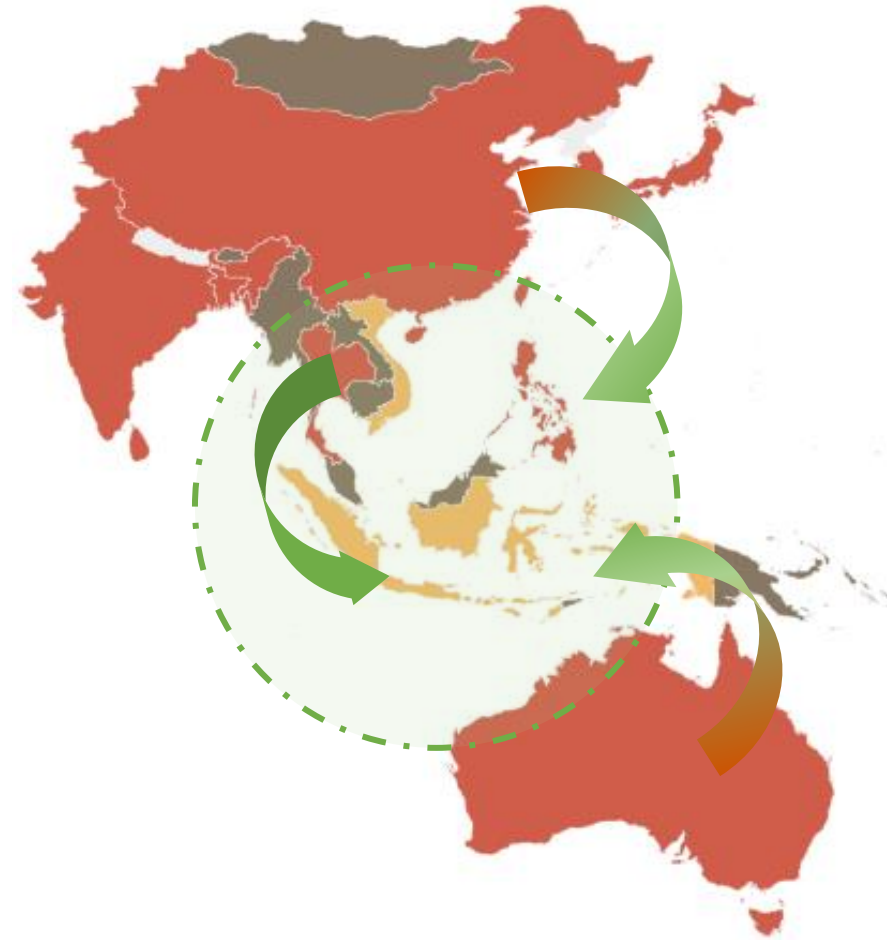
Conclusions

- Countries in the **East Asia** better achieved the goals. These countries have well-developed laws and regulations on the management of hazardous wastes and the supervisory system is established.
- Countries in the **South and Southeast Asia** mostly achieved part of the goals. The implementation and supervisory need a further enhancement.
- **Island countries** in the Pacific Ocean can hardly achieve the goals.
- To achieve a better performance of sustainable goals and a sound management on chemical and hazardous waste, **a more functioning coordination** needs to be established in the A&P region. Especially, the coordination **between East Asia and Southeast Asia**. Both East Asia and Southeast Asia shall **help Pacific island countries build a more resilient mechanism** against chemical and hazardous waste if needed.

4 Conclusion and way forward

Ways forward

- To align to SDGs and Ha Noi 3R goals, the A&P countries need to develop a more functioning mechanism for recycling and disposing hazardous wastes.
- Supervision, specification, and data accessibility need to be addressed.
- Policy makers shall synthesize the informal sector with the formal sector when constructing the mechanism.
- Pacific island countries need more help from countries who have developed a functioning hazardous waste management system.



Thanks

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