

Online Joint Dialogue on Waste Management in the Context of COVID-19 Pandemic

ASEAN Inter-Parliamentary Assembly (AIPA)
Economic Research Institute for ASEAN and East Asia (ERIA)

Municipal Solid Waste Management in the Context of COVID-19 Pandemic

13:00-15:45, 13 July 2020

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Indonesia

Municipal solid waste issue in Indonesia

Responsibility of local government (Cities/Districts)

- Annual budget → regular operation

Central Government: Assistance in some projects of infrastructure:

- Ministry of Internal Affairs
- Ministry of Environment and Forest
- Ministry of Public Works and Housing

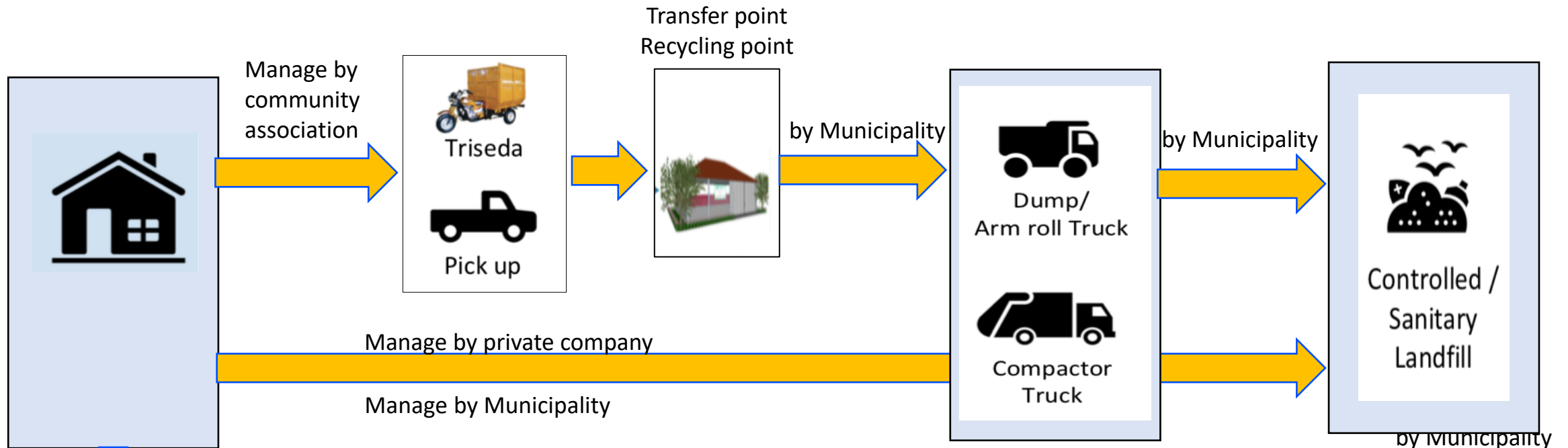


34 Provincial level, 502 Municipalities and Districts

78 autonomy cities with more than 100.000 populations

- municipal solid waste (MSW): one of the most challenging urban issues
- MSW generation in urban areas: at least some 60,000 tonnes/day
- about 60% were collected and transported to landfill areas.

Simplified waste management in Indonesia

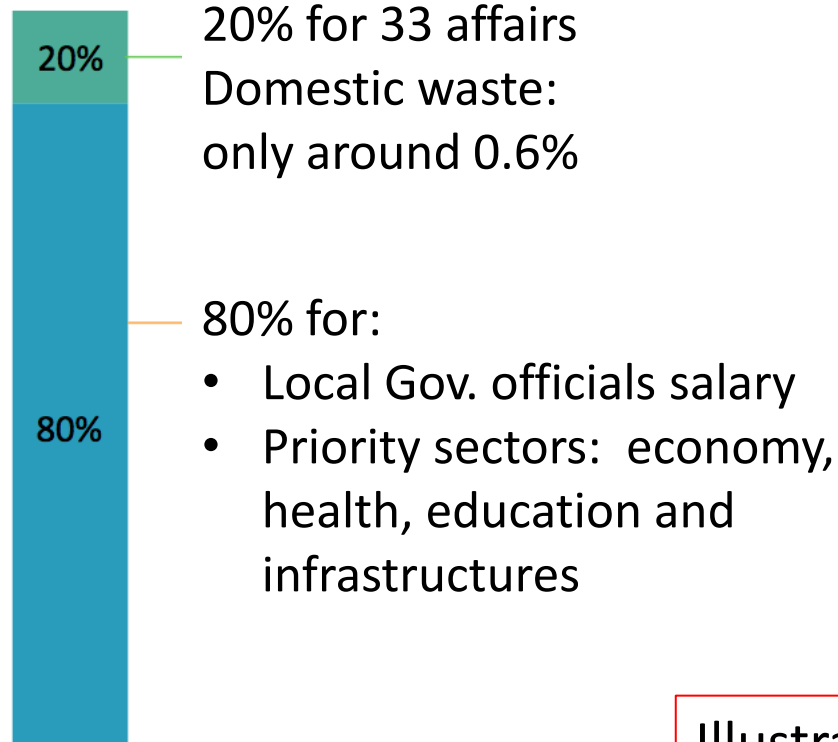


Ministry of Environment and Forestry: in 2019

- 64 million tons of waste generated (urban and rural areas)
- 15 % plastic waste.
- 60% waste in urban areas: transported to the final disposal sites
- 10% recycled.
- the remaining (30%): waste generators initiative

The most challenging:

Limitation of local governments budget for OM



Ref: M.B. Junerosano,
Webinar June 18, 2020

Central (National) Governments budget assistances:

- Development of MRFs facilities
- Providing waste trucks
- Development of final disposals, etc.

President Regulation #35/2018:

- Acceleration developments of WtE in 12 cities
- Scheme: PPPs
- OM cost: partly supported

Illustration for OM capability for minimum standard:

- Bandung (metropolitan city): is only able to support around 45%
 - Subang district: 5%
- not all domestic wastes can be managed properly

Change in obtain the daily needs for food and goods

during 'lock down' of Covid-19 in some urban areas in Indonesia



food, fruits, vegetables
from informal sectors: available



stalls: available
traditional markets: closed



stores, malls,
supermarkets,
restaurants:
closed



On Line
most favorable
during lock down

The Covid-19 pandemic has influenced the lifestyle in getting the daily needs through online delivery services. It must be wrapped in several plastic bags → increasing of plastics wastes.

Special case: trend in waste generation during Covid-19

Lock-down protocol: stay at home, closing of public-commercial areas, etc.

MEDICAL WASTE

National data of medical waste:

- PPEs waste (Jan2020) = 68 kg
→ 500 kg (March2020)
- Medical waste (Jan 2020) = 2,682 kg
→ 4,000 kg (March 2020)

Some data:

- Yogyakarta: decreasing in 14.51%
- Semarang: decreasing at 4.85%
- Bandung: increasing at 17.71%
- Surabaya: increasing at 19.61%

Reff: Imran Agus Nurali, Webinar 28/04/2020

MUNICIPAL SOLID WASTE

Decreasing of total domestic waste:



- Bandung city 18%
- Jakarta city 24%
- Bekasi city: 44%

Decreasing of MSW:

- From commercial area: Bandung (60%)
- From street and public areas: Bandung 8%



- Increasing of domestic waste from HH (Bandung 20%)
- Increasing of plastic waste from HH

Waste masks from HH have no effect on the waste generation

SE.2/MenLHK/2020 (March 3, 2020) *Guidance for Infectious and domestic waste management*

MenLHK = Ministry of Environment and Forestry (MEF)

1. Infectious waste from health care facilities
2. Infectious waste from people under surveillance originating from HH
3. Domestic waste

#1 and #2 :
considered as
infectious waste,
managed under
medical waste
regulation

- Waste workers: very vulnerable to exposure to viruses
- Before Covid 19, the use of PPEs in handling domestic waste: not been seriously implemented

#3 Domestic waste:

- obligation to use PPEs → problematic for waste workers who work alone, and work under the control of community associations
- recommended to use multi use mask (washable mask)
- obligation for local Government to provide waste drop box for mask waste collected

SE.2/MenLHK/2020 (March 3, 2020) [Guidance for Infectious and domestic waste management](#)



We are still working
You should stay at home
for us

- Some cities anticipated the Covid-19 waste for its MSW collection workers by tightening the use of PPEs. They provide hand washing soap and hand sanitizer in certain places.
- Estimated: around 300,000 waste workers in Indonesia who work routinely in waste collecting and transporting. Not include informal workers such as waste scavengers who are estimated to reach 600 thousand people (Greeneration, 2020).
- Although the MEF has issued the special guidance, many Local Governments have not responded properly to the circular. The main problem is the limited budget. Some NGOs have been raising funds for the procurement of PPEs for waste workers.

Japan

Impact of Covid-19 on Waste Management in Japan

- Similar to Indonesia, Japan also experienced the decrease of waste generated from offices and industries, and the increase of waste generation in household.
- The difference between Indonesia and Japan is who has responsibility on waste generated from offices, shops and industries. In Japan, regarding general waste from offices, shops and industries, waste generator has responsibility to arrange waste collection services.
- Local governments face increase of waste.
 - Waste generated in 23 Cities in Tokyo increase 8.3 % in April and 10.3% in May compared with same month in previous year.

Instruction to the Household on infected or suspected infection including COVID-19



Most of local governments ask residents to use plastic bag to dispose waste. In COVID-19 pandemic, collection workers use mask.

Disposal of Face Masks and Items Used by Those Infected or Suspected of Infection including the Novel Coronavirus (COVID-19)

If you and/or someone living with you are, or might be, sick with Infection such as the novel coronavirus, please always keep in mind to follow the manners below in disposing of household garbage.

- ① Cover an empty garbage container with a plastic garbage bag.**
Dispose of garbage before it becomes full.
- ② Securely tie garbage bags to avoid direct contact!**
Deflate garbage bags before tying. Double bag the garbage if the garbage bag is torn and/or the contained garbage accidentally contacted outside the garbage bag.
- ③ Wash your hands immediately after disposal!**
Wash your hands carefully in running water with soap immediately after every disposal.

Your considerate attention and care are essential for both your family and waste management staff members.

Thank you very much for your kind cooperation!

 環境省
Ministry of the Environment



https://www.env.go.jp/saigai/novel_coronavirus_2020/covid-19_waste_disposal_en.pdf

Waste Management in Japan

- In Fiscal Year (FY) 1961, only 39.0% of population have waste collection services by governments.
- Before 1970, the central government only require cities to operate waste collection and disposal from household. Prefectural governor can specify where collection service should be provided in rural municipalities.
- Japan revised waste management act in 1970, which was entered into force in 1971. The revised act all local government should provide waste collection services in whole area.
- In FY 1977, the percentage of population getting waste collection services reached more than 90%.
- To provide proper waste disposal, including sanitary landfill and waste incineration plant with pollution control in small cities, towns and villages, **regional waste management** schemes have been used.
 - There are economies of scale in constructing sanitary landfill and waste incineration plant .

Conclusion

Lesson learnt from Pandemic Covid-19 in waste management

- COVID-19 has impact on the volume of waste generated in office area and in residential area.
 - In office area, waste generation decreased, while household area increased.
 - Local government or private sector who collect waste should rearrange the number of trucks serving office and residential area.
- In Some Southeast Asian countries, the coverage rate of waste collection services is not enough. Waste disposal method is not good enough. Waste collection services and proper waste disposal should be promoted, not only in urban area but also in rural area.
 - To reduce construction cost of disposal facility, regional waste management is an option, because small city or town may not utilize the economies of scale in construction cost of sanitary landfill, waste to energy plant and other technologies.

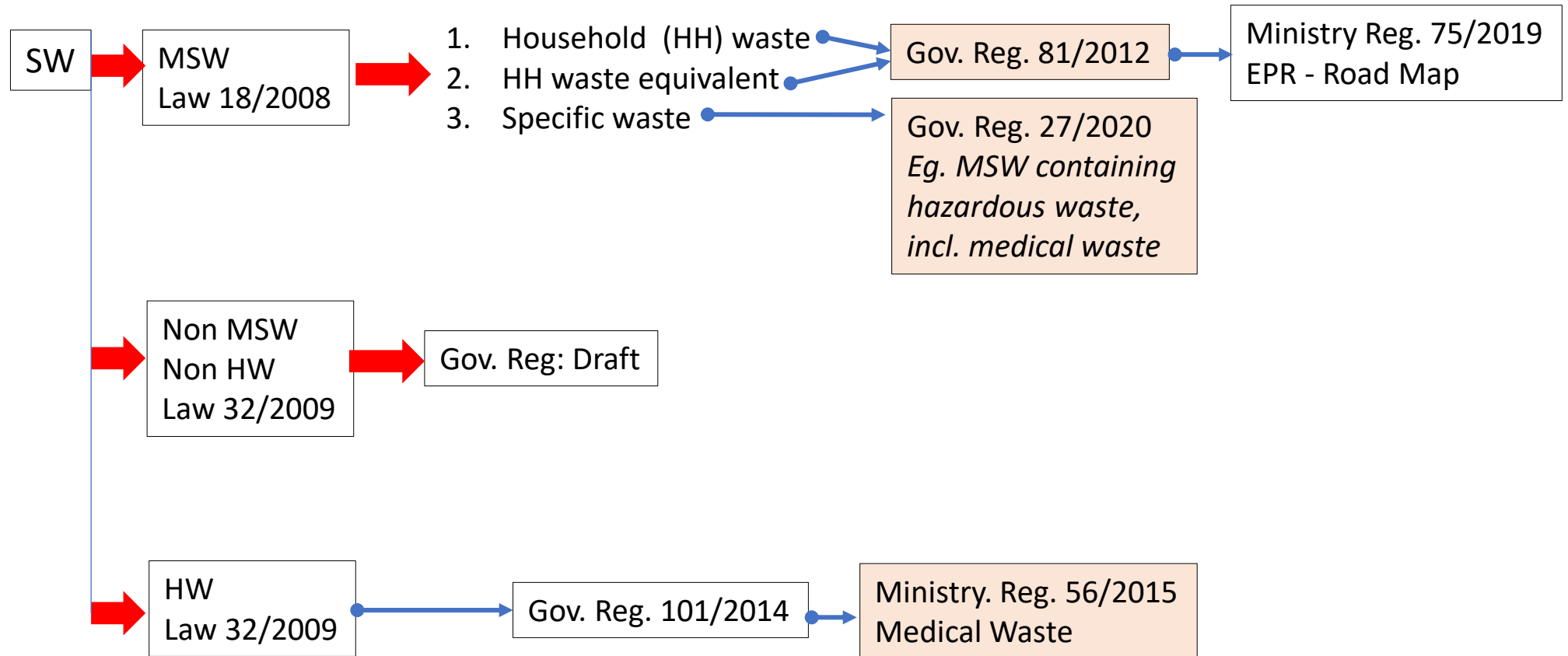
Lesson learnt from Pandemic Covid-19 in waste management

- In the last 3 years Indonesia has been very active in promoting the reduction of plastics waste, through the appeal to bring its own shopping bags, and avoid the use of single-use plastic. Several cities and provinces in Indonesia have issued regulations regarding the prohibition of the use of single use plastic. The Covid-19 pandemic has influenced the lifestyle of the urban people in getting their daily basic needs through online delivery services. It generates more plastics waste.
- The daily waste services should not be disrupted, which will worsen the public health situation. A common awareness emerged that waste workers are at high risk of exposure to the virus. Increased mutual awareness that it is necessary to pay more attention to waste workers in maintaining their health and safety.

THANK YOU FOR YOUR KIND ATTENTION

Annex

(Solid) waste classification - regulation



MSW = municipal solid waste = domestic waste

HW = hazardous waste

Important MSW policy and strategy in Indonesia

1. Presidential Regulation No. 97/2017 (*National Policy and Strategy for the Management of Household Waste (domestic waste) and its equivalent*): the 3Rs (reduce, reuse and recycle) principles of managing waste to reduce the waste with the target at 30 percent in 2025, and to handle the waste transporting it to the final disposal with the target at 70 percent.
2. Presidential Regulation No. 83/2018 (*Marine Waste Management*): an action plan for the marine plastic waste for 2018-2025, with a vision of making Indonesia free of plastic waste in 2040.
3. Ministry Environment and Forestry Regulation No. P75/2019 (*Roadmap of Waste Reduction by Producers*): obliges the producers to be responsible for managing the waste in their post-consumers.