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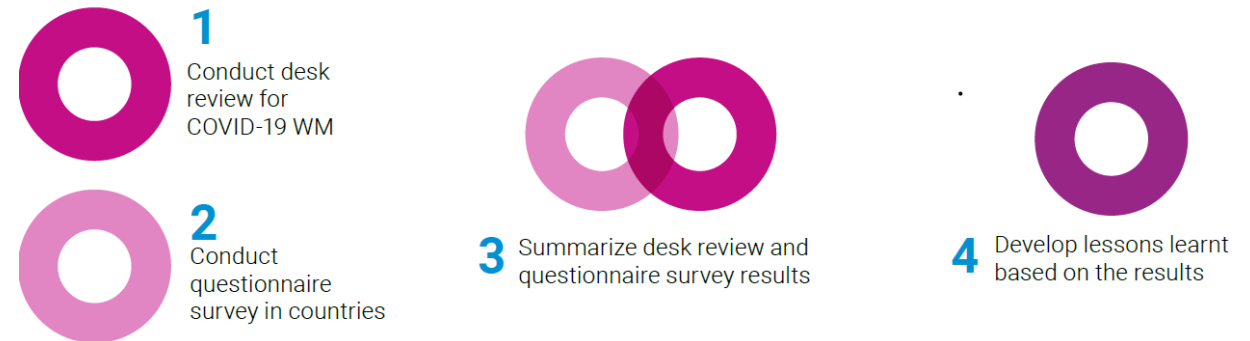
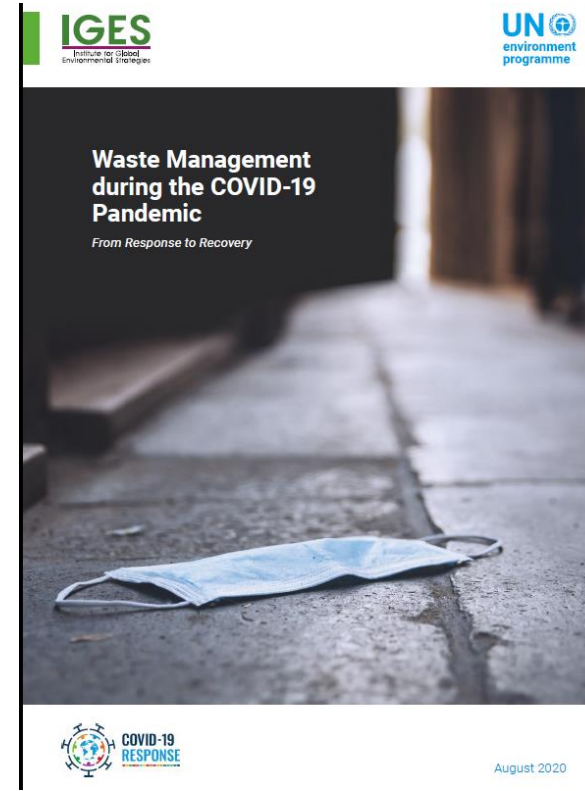
IGES
Institute for Global
Environmental Strategies

Waste Management During the COVID-19 Pandemic: From Response to Recovery

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1. Introduction

- A joint publication developed by UNEP and IGES-CCET in 2020 responding to the needs of national/ local governments
- Based on a desk review and a questionnaire survey covering 15 countries (Asia, Africa and LA),
- Focuses on policies and practices in managing Healthcare Waste (HCW) before and during the COVID-19 pandemic,
- Reviews good practices for immediate response to recovery with a focus on developing countries.
- Identifies policy recommendations from response to recovery of HCWM system



2. Key messages

Policy Makers

- COVID-19 brings additional challenges in waste management in developing countries
- Governments have introduced some immediate policies and actions, but they are inadequate.
- In addition to technology and finance, good governance and policy-making responsibility play an important role throughout the emergency management cycle – from preparedness and readiness to respond to eventual evidence-based recovery from COVID-19
- Encourage evidence-based and informed decision making for not only recovery but also building back better.

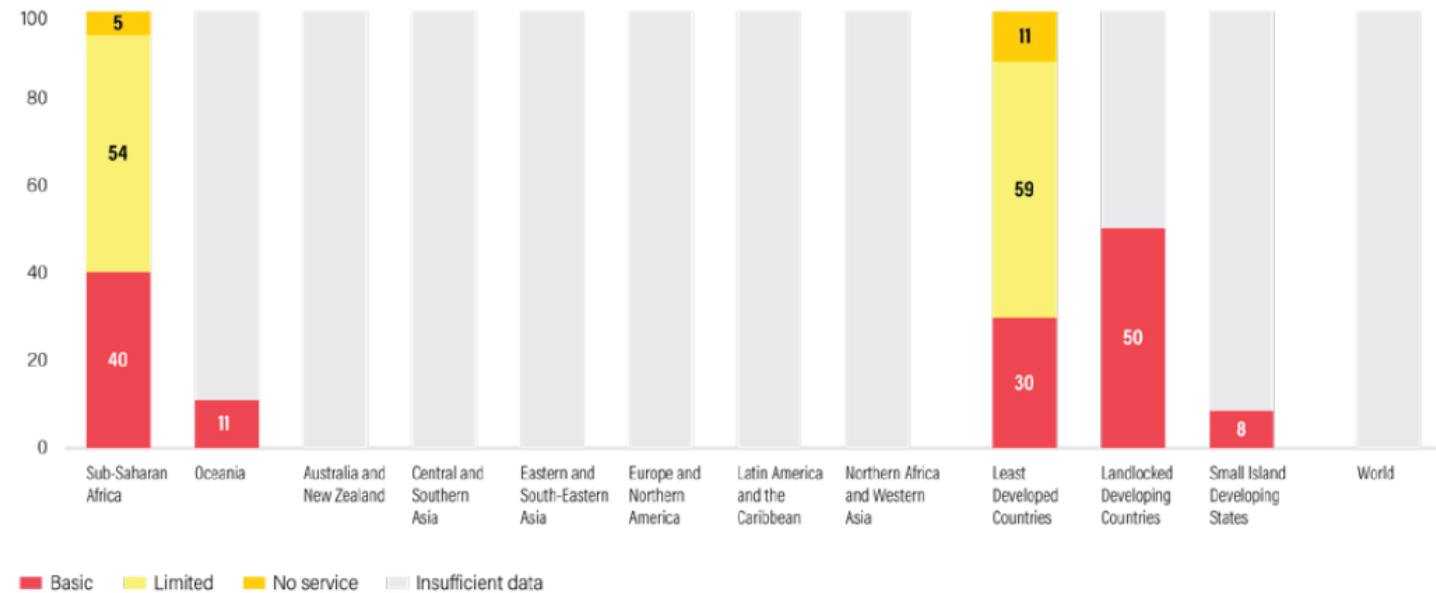
Practitioners

- Proper segregation, packaging and storage of potentially contaminated materials (double bag) from others
- Adjusting collection frequency and treatment options based on priority (organic waste, infectious waste, etc.) and continuation of a separated collection of recyclables
- Strict use of personal protective equipment (PPE) when handling healthcare waste and hand hygiene as well as introduce other precautionary practices to ensure health and safety of waste workers
- Secure livelihood of the informal sector, women and small and medium businesses.

3. Only 3 in 10 health care facilities (HCF) in developing countries have basic waste management services



WASH services in HCF in least developed countries (LDC) in 2019 (WHO & UNICEF, 2020)



Regional and Global waste management services in HCF by regions in 2019 (WHO & UNICEF, 2020)

4. Inadequate HCWM systems force national/ local governments more vulnerable in the COVID-19 pandemic

- Unpredicted increase in the generation of HCW
- Increased amount of mixed waste, including infectious waste
- Increased amount of plastic waste
- Suspension of source separation and recycling activities
- Increased negative impacts for informal groups (women) and their livelihood
- Increased insufficient handling and treatment of HCW

City	Population (World Population Review)	healthcare waste generated (tonnes/day before COVID-19)	Estimated additional healthcare waste generation (tonnes/day during COVID-19)	Percentage of increase due to COVID-19
Manila	14 million	47	280	496
Jakarta	10.6 million	35	212	506
Bangkok	10.5 million	35	210	500
Ha Noi	8 million	27	160	493
Kuala Lumpur	7.7 million	26	154	492



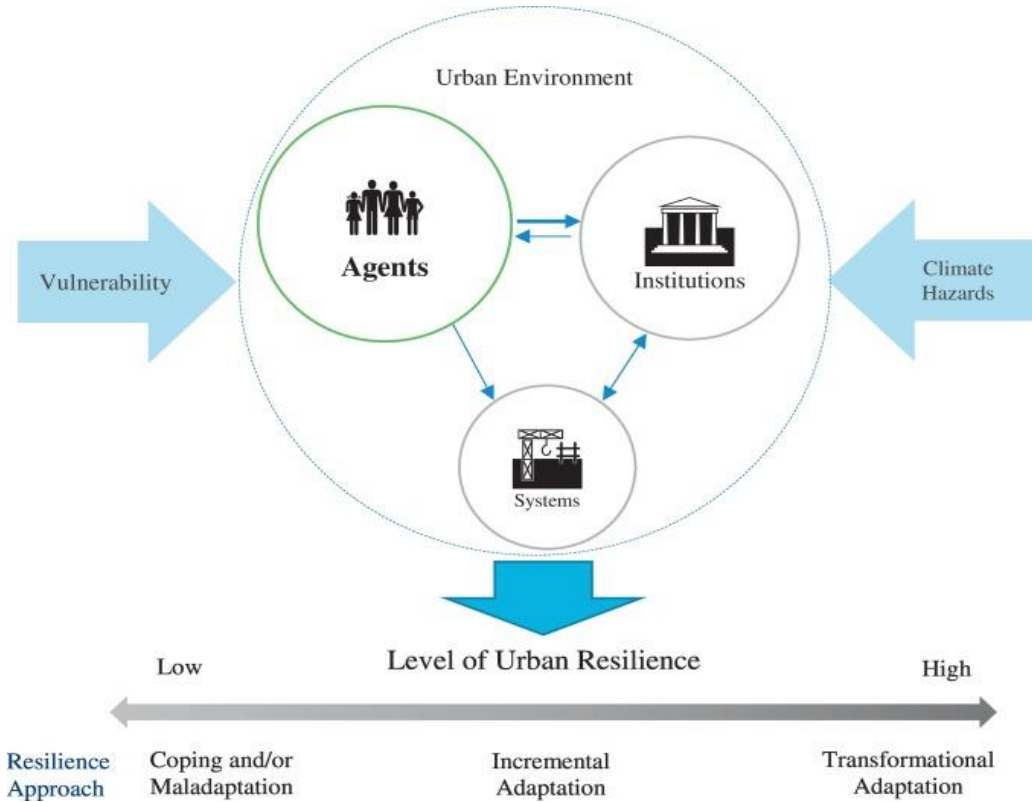
Source: H/H waste collection in Jakarta
@ Enri Damanhuri, 2020

5. Having specific policies/ legislation/ regulations do not guarantee that they are extensive, sufficient and enforced both in normal and pandemic situation

	Guidelines	Safety Policy	Report	Flowchart	Q&A	Recommendation	Manual	Notification	Project Document	Flyer	Research Paper	Standard	Regulation	Act	Policy	Provincial Notice	PPT Document	Strategy
UN	●																	
WHO	●																	
CDC	●				●													
UNEP			●															
SWANA	●																	
Stericycle		●																
ACR+				●														
ISWA						●												
UN-Habitat	●																	
China								●	●									
Ethiopia	●																	
India	●																	
Japan	●				●		●	●		●								
Kenya	●												●		●			
Malaysia	●		●								●							
Mexico												●						
South Africa	●												●	●		●	●	●
Sri Lanka	●																	

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Flowchart	1
Q&A	2
Recommendation	1
Manual	1
Notification	5
Project Document	1
Flyer	2
Research Paper	2
Standard	1
Regulation	3
Act	1
Policy	1
Provincial Notice	1
PPT Document	1
Strategy	1
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6. Discussion



- Improving the management of HCW, increasing *resilience* against COVID-19.
- National and local governments need to redesign their HCWM *systems* in the longer term, build *sound institutions* and *capacity of agents*



7. From Response to Re-design (Triple Rs): Recommendations for Policy-makers and Practitioners

Response

- Ensure health and safety measures for all workers
- Prepare contingency plans at all levels
- Secure life and livelihood of vulnerable groups (informal sector, women and small and medium businesses)
- Introduce temporary treatment facilities

Recover

- Recovery support schemes for informal groups, women and small/ medium business
- Increase waste minimization and recycling targets while introducing system changes (source separation, collection and recycling)
- Data management and evidence-based policies and actions

Redesign

- Integrate HCWM into national/ local waste management, emergency, resilience and climate change policies, strategies and plans
- Introduce sound treatment and green health infrastructure
- Inclusion of health priorities in SDGs and NDCs

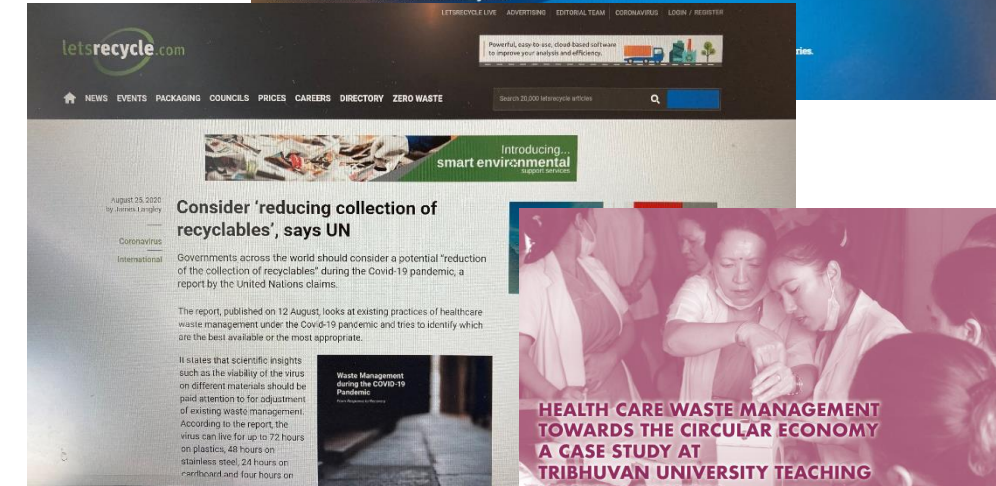
8. Way forward

1. Networking and knowledge sharing

- Organised a series of webinars jointly with other partners (MOEJ, UNEP, UN-Habitat, SACEP, ISWA, JSMCWM etc.)
- Published academic papers/ review articles
- Documentation of good practices/ case studies in Japan, Nepal, Myanmar, Sri Lanka and others

2. Assist national and local governments to develop a sustainable and low carbon health systems

- Assist in developing national policy frameworks for greening HCWM in Africa (Kenya & Ethiopia)
- Assist Nepal and Sri Lanka to build capacity on HCWM
- Shared experience with Japanese companies to plan their project activities in developing countries (e.g. GUUN and Yokohama City in Mandaue City, Philippines)



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Thank you very much for your attention.

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