

# Environmental, Health and Safety (EHS) guidelines for waste management and its application in the WB project

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# Experiences and observations in Solid Waste Management

## Sector Issues

Sector governance challenges often more constraining than access to investment funding

Typical governance challenges in the waste sector: land issues; lack of operational finance (tariffs, budget); local and central government capacity; monitoring and enforcement; public outreach and public support → most common challenge is operational finance

Operational finance, typical funding \$5-20/ton; benchmark for required funding; \$75+/ton

Land issues (NIMBY, availability) increasingly drivers behind recycling and alternative technologies

Marine plastics as global good -- influencing national SWM policies

Often associated with social issues such as land acquisition, resettlements, informal waste workers

## Technology, the basis remains landfilling

Landfilling trends: sanitary landfilling, consolidating dump sites; regional landfill concepts often administratively complication

# Environmental, Health, and Safety (EHS) Guidelines

EHS Guidelines on waste management and hazardous materials management **specify the guidance all along the waste value chain** from waste prevention, generation, separation, storage, collection, transportation, recycling, treatment, and landfill.

The **guidelines provide the direction on how the WB projects should design the project activities and infrastructures**, and how to safely manage general and hazardous waste.

- Establishing waste management priorities at the outset of activities based on an understanding of potential Environmental, Health, and Safety (EHS) risks and impacts and considering waste generation and its consequences
- Establishing a waste hierarchy
- Avoid or minimize the waste as far as practicable
- Where waste generation can not be avoided, but has been minimized, reused and recycled.
- Where waste can not be recovered or reused, the waste must be treated with environmental sound manner

**The selection of appropriate methods and technologies depending on the local capacities, resources, and contexts is the way** to establish a workable waste management system.





# Environmental, Health, and Safety (EHS) Guidelines

**Hazardous waste should always be separated from non-hazardous waste.**  
Hazardous waste management should be based on the principles:

## **Preventive measures are the key!**

- Understanding potential impacts and risks associated with the management of any generated hazardous waste during its complete life cycle
- Ensuring that contractors handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies, and following good international industry practices for the waste being handled
- Ensuring compliance with applicable local and international regulations
- Regular monitoring and inspections of waste storage site should be conducted.
- Inspect the carrier such as containers, vessels etc. which carry and transport the waste to check potential leakage
- Establish manifest system



# Case study: COVID-19 Emergency Response in Laos

- Introduction of three waste bins system
- Organized the training for hospital, healthcare centers staff for safe handling of waste
- Assisted the government authority to establish a monitoring and reporting system for private waste operators
- On-site waste storage
- Procurement of autoclave

**Major remaining challenge:  
How to decrease the amount and density  
of infectious waste that are overflowing at  
each vaccination center, patient treatment  
facilities?  
Is incineration an option?**

