



Industrial waste management and 3R promotion in industry sector

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Ministry of Industry and
Commerce
Department of Industry
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I. Legislation and Policy

- In Laos, There is no basis law on waste management. However, the laws and bylaws related to waste management are in place as shown at the below:
 - **Environmental Protection Law (Revised Version)**
 - Part III Environmental Protection, Chapter 3 Toxic Chemical Control and Waste Disposal stipulates basic matters regarding the handling of these substances
 - **Law on Chemicals Management**
 - The law stipulates basic matters concerning chemical substance management. Chemical substances are classified into 4 groups according to their harmfulness (Article 9)

I. Legislation and Policy

➤ **Decree on Waste Management from Health Care Facilities**

- The law classifies waste generated in medical institutions into infectious, sharp, and general, and stipulates how to handle them.

➤ **Decree on Environmental Impact Assessment**

- Basically, EIA procedures are required for all development projects. Development projects are classified into Category 1 or 2 according to the list. Category 1 is required to carry out IEE, and Category 2 is required to carry out EIA. For projects that are not on the list is under consideration of MONRE.

I. National Legislation

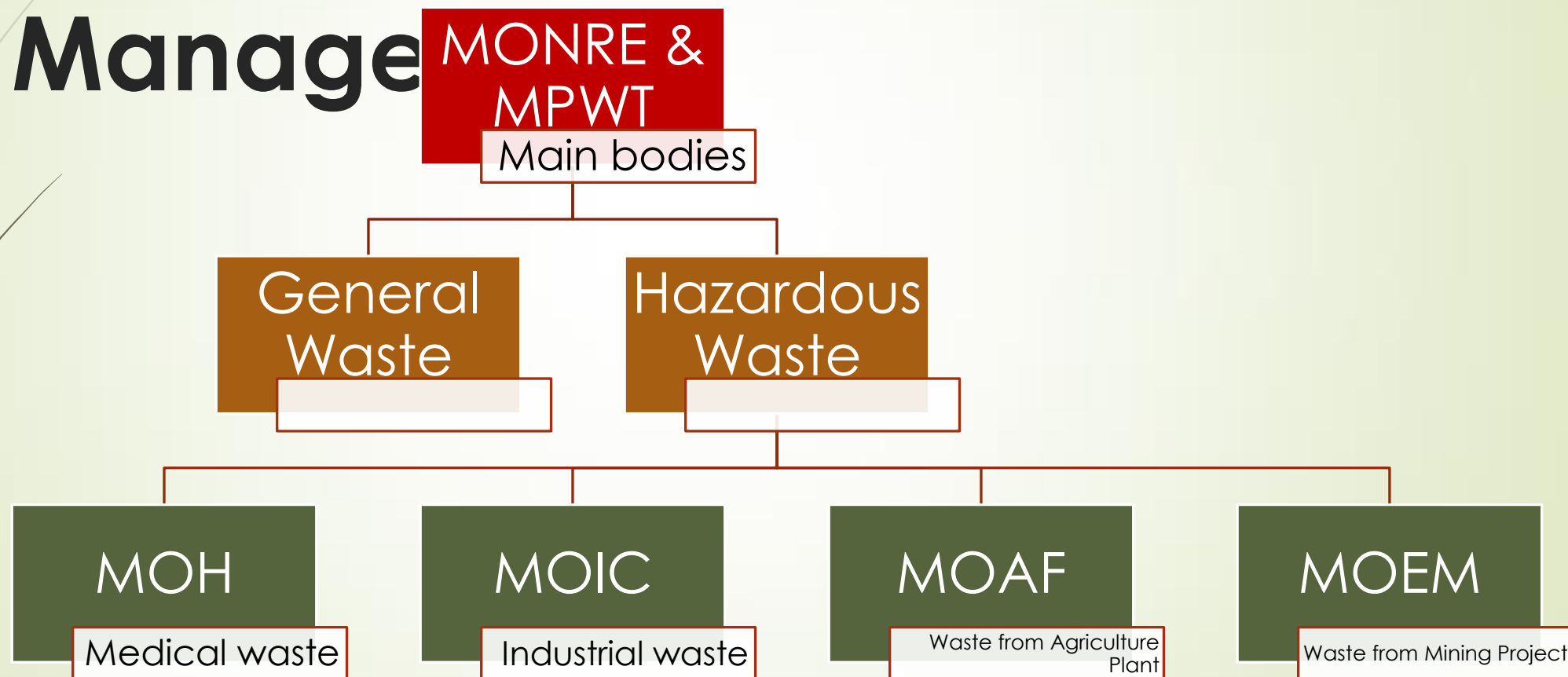
- ▶ **Decision on Adaptation and Promulgation of National Environmental Standards.**
- ▶ **Ministerial Instructions on Pollution Control**
- ▶ **Ministerial Instructions on Hazardous Waste Management**
 - ▶ MOIC: Decision on the management of wastes of the manufacturing and handicraft factories
- ▶ **Laos 9th National Socio-Economic Development Plan (2021-2025)**
 - ▶ MOIC: The five year development plan of Industry and Handicraft (2021-2025)
- ▶ **Decision on the management of wastes of the manufacturing and handicraft factories**

II. Institutional Framework for Solid waste

Management

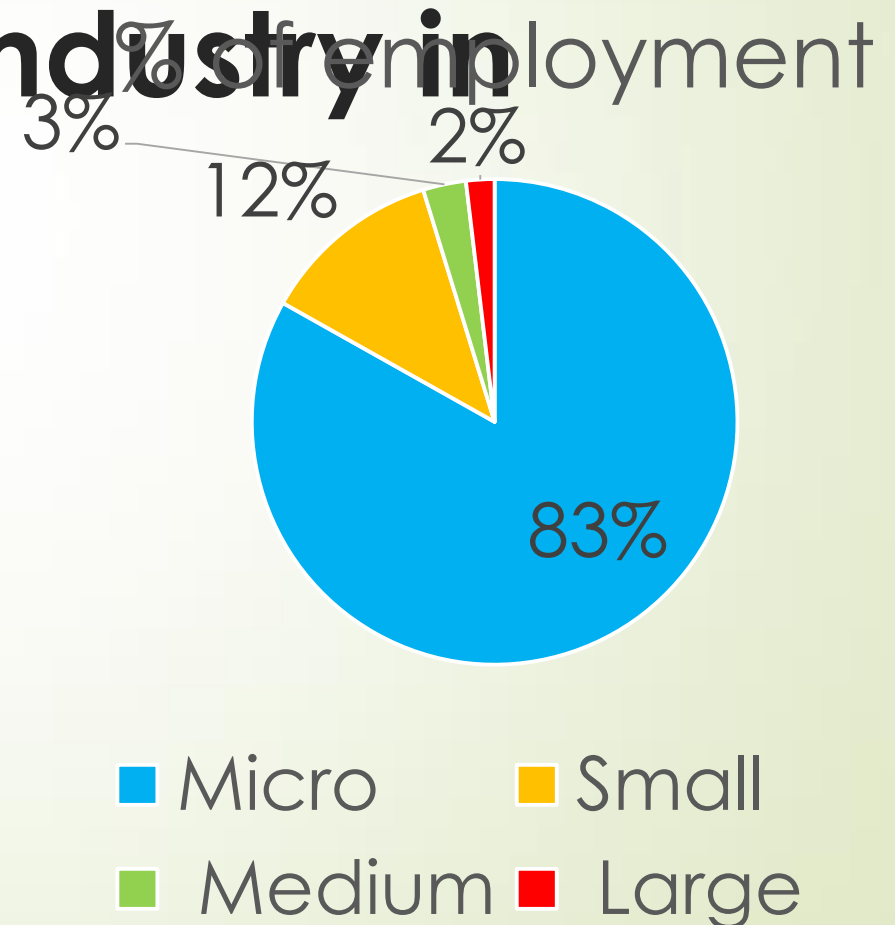
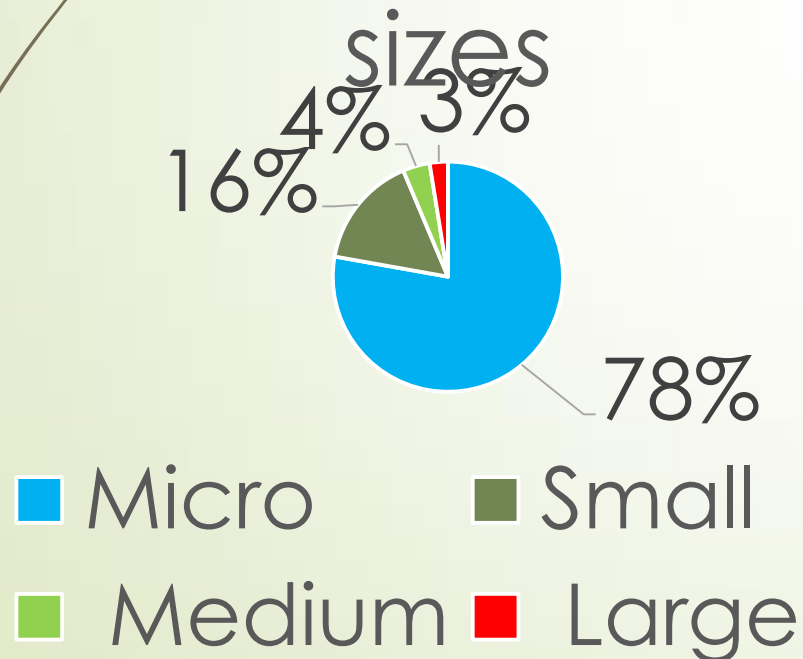
- Ministry of Natural Resource and Environment (MONRE)
- Ministry of Public Work and Transportation (MPWT)
- Ministry of Industry and Commerce (MOIC)
- Ministry of Health (MOH)
- Ministry of Agriculture and Forestry (MOAF)
- Ministry of Energy and Mine (MOEM)

II. Institutional Framework for Solid waste Management



III. Industrial Waste Management

Overview of Industry in
Laos
manufacturing by



III. Industrial Waste Management

The implementation of MOIC mainly refer to:

- **The Law on Processing Industry**
 - Section 6 Environmental Protection
- **The 5 year Development Plan of Industry and Handicraft**
 - Promoting Green Industry,
 - Promoting 3R, efficient use of material, ...
- **Decision on the management of wastes of the manufacturing and handicraft factories**
 - principles and measures to manage solid waste from industrial processing and crafts to ensure that it does not affect the environment and

III. Industrial Waste

Decision on the management of wastes of the manufacturing and handicraft factories

Identifying Hazardous Waste

Hazardous wastes: Chemical wastes and containers, Radioactive wastes, Particulates of chemical purity treatment, Other hazardous wastes.

General waste.



No. 0555/MOIC, 20 Mar 2012

Waste Classification

- Has a suitable, secure waste container
- Classify by color of bin
- Gray: Hazardous, Black: Toxic
- Green: Non Hazardous, Yellow: Recycle



Hazardous Waste Accumulation Area

- Have container and keep away in save place
- Can be collect not exceed 60 days
- Particular reponsible authority Ensure of safty.



III. Industrial Waste

Decision on the management of wastes of the manufacturing and handicraft factories

No. 0555/MOIC, 20 Mar 2012

The collecting and moving waste: must have relevant professional knowledge and experience authority working in this field at least 2 years and must comply with the

ors



III. Industrial Waste

Decision on the management of wastes of the manufacturing and handicraft factories

No. 0555/MOIC, 20 Mar 2012

General Waste -
Landfill



Hazardous Waste – Environmental
Management Center: EMC



IV. 3R Promotion in industry

sector
Cooperation

MOIC



EMC

- Signed MOU 30 Nov 2022
- Research and develop Waste Manifest system, innovation for treatment.

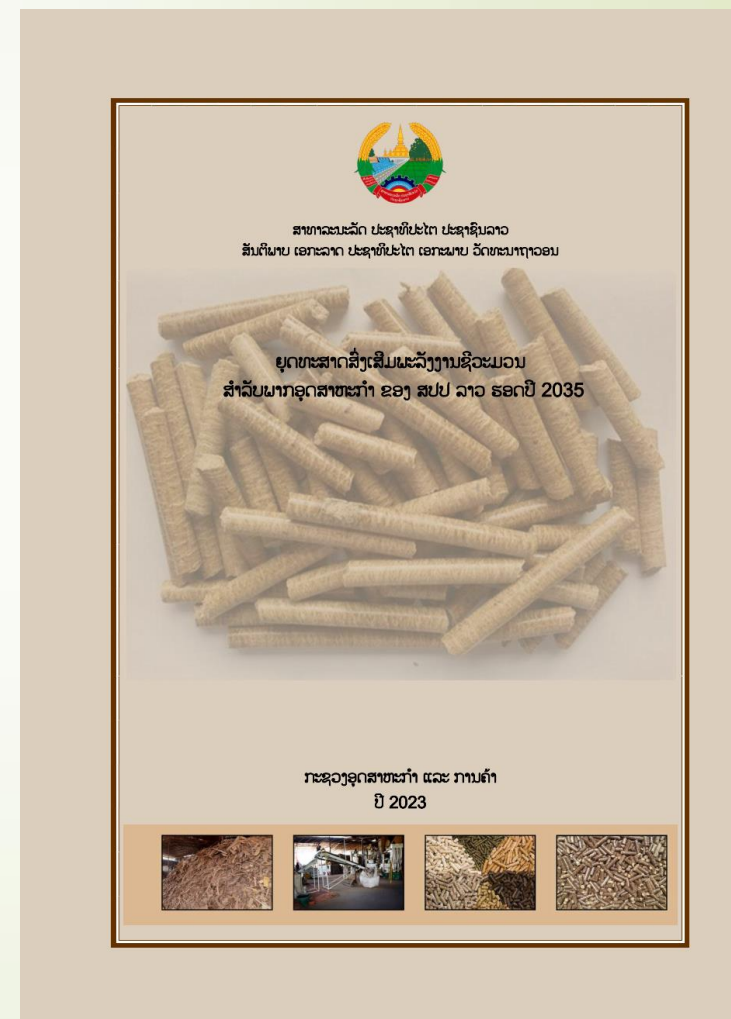
KCL

- Currently focus on RDF
- Signed MOU 18 June 2022
- Using RDF power
- Generate power for the factory by general waste (from 32KM

IV. 3R Promotion in industry sector

Create the strategic of promoting biomass power for industries in Lao up to 2035

Approved in 2023



IV. 3R Promotion in industry sector

Promoting recycle industries:

Currently there are 19 plastic waste recycling factories across the country

Northern part: 1 factory

Central part: 8 factories

Southern part: 10 factories

IV. 3R Promotion in industry sector

Promoting recycle industries:

For E-waste recycling industries

- There was a number of e-waste management services established both legal and illegal during the mid of 2010s,
- Coursing E-waste import, and some controversial on environment impact.
- The government stop all the activities of E-waste recycling for reconsideration.

IV. 3R Promotion in industry

Promoting recycle industries: sector

Other industries using waste as a resource;

- The factory make diesel fuel from used oil.
- The steel factory using used steel.
- The use of beer waste for cattle feeding and plant fertilizing.

V. Challenges and Future

- Plan**
1. Publicizing laws and regulations for managing waste generated by industrial processing and handicrafts is still not common.
 2. The enforcement of laws and regulations is not as efficient and effective as it should be.
 3. Coordination between the government sector and public sector is still not working well.
 4. Some operators still lack awareness and do not give priority to waste management, resulting in the phenomenon of recklessly throwing away waste, improper treatment (burning with an open system), no separation of waste, etc., causing risks and affecting the environment.

5. There are also limited facilities or standard landfill of



V. Challenges and Future

Plan

1. Public financing and regulations for managing waste generated by industrial processing and handicrafts is still not common.
2. The enforcement of laws and regulations is not as efficient and effective as it should be
3. Coordination between the government sector and public sector is still not working well
4. Some operators still lack awareness and do not give priority to waste management, resulting in the phenomenon of recklessly throwing away waste, improper treatment (burning with an open system), no separation of waste, etc.,



Thank you