

# Waste Management in the Textile and Garment Industry -“ *Sludge disposal through landfill*”

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SUSTAINABLE SOLUTIONS FROM

**RE SUSTAINABILITY LTD.**

# Presentation Objective

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....is to discuss

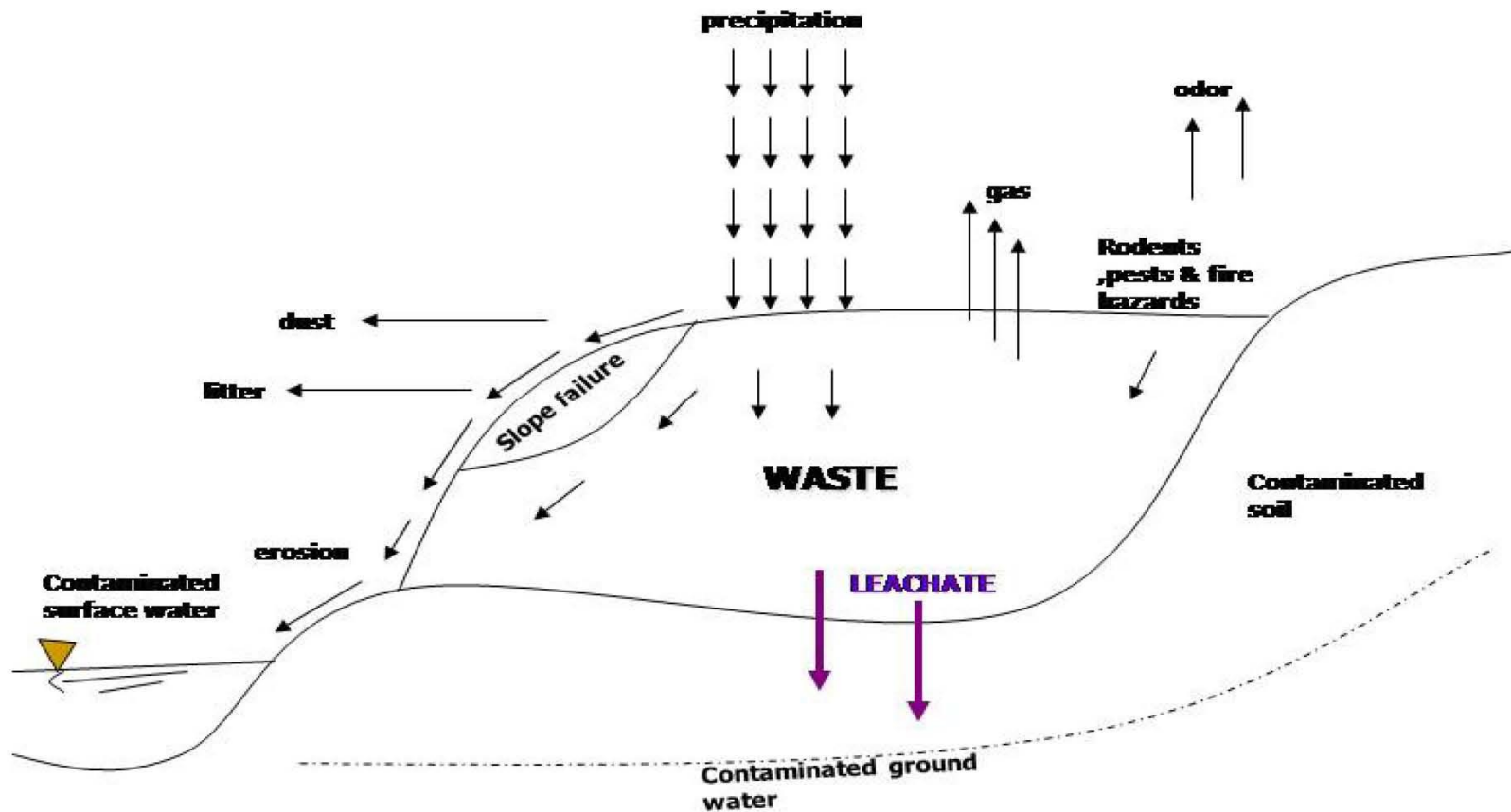
- Why industry must manage sludge
- How sludge can be managed

..... and look at

- ❖ What can be done for the Textile and Garment industry in Bangladesh

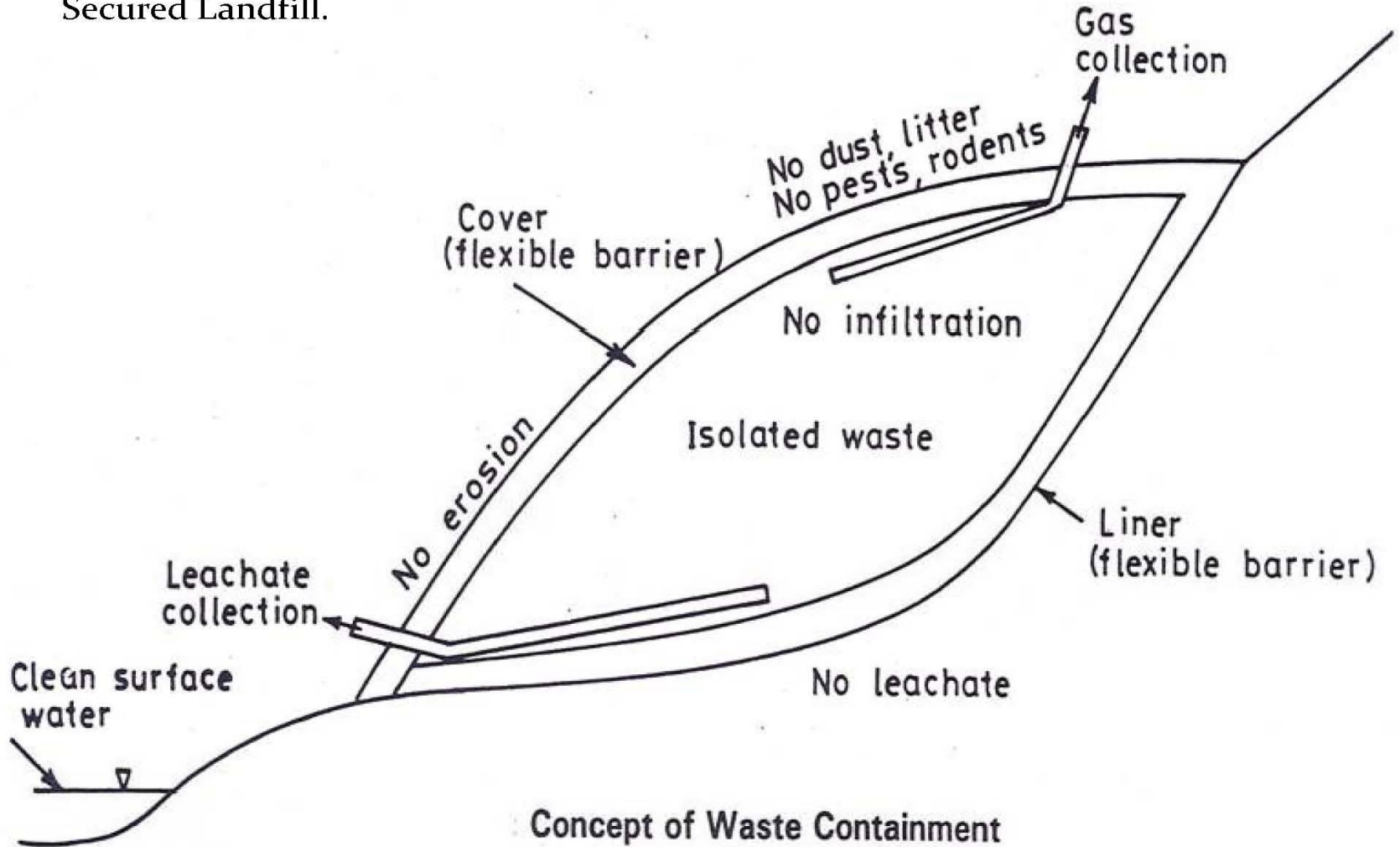
# Sludge which is not scientifically managed.....

When waste is stored in land, it becomes a part of the hydrological cycle



# Solution by developing Secured Landfill

Secured Landfill.



# Overview of Hazardous Waste

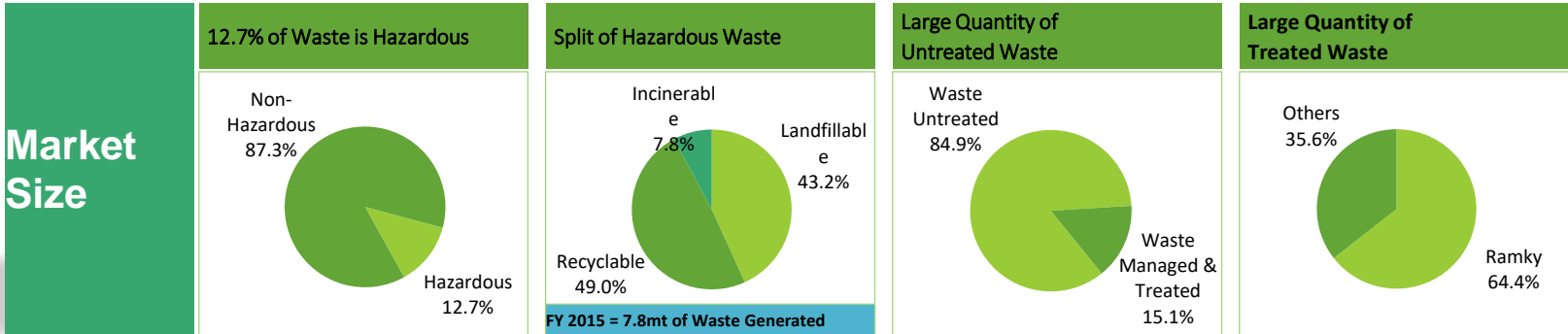
**What?** • Wastes that when present in quantities high enough, pose a threat to human health or the environment

**How?** Hazardous waste is generated by

Petroleum & Petrochemicals	Pharmaceuticals	Fertilizers & Pesticides	Paints & Dye	Chemicals	Textile

**Solution**

Direct Landfill	Landfill After Stabilization	Incineration
<ul style="list-style-type: none"> <li>• CRIT Compliant</li> <li>• Heat value &lt;20</li> <li>• Biodegradable Organics &lt;5%</li> <li>• Non-Biodegradable Organics &lt;20%</li> <li>• Calorific Value &lt;2,500kcal/kg</li> </ul>	<ul style="list-style-type: none"> <li>• CRIT non-compliant</li> <li>• Non-Biodegradable Organics &lt;20%</li> <li>• Calorific Value &lt;2,500kcal/kg</li> </ul>	<ul style="list-style-type: none"> <li>• Biodegradable Organics &gt;5%</li> <li>• Non-Biodegradable Organics &gt;20%</li> <li>• Calorific Value &gt;2,500kcal/kg</li> </ul>



# DISPOSAL METHODS

DLF

DIRECT LANDFILL

INC

INCINERATION

LAT

LANDFILL AFTER TREATMENT

# Responsible Sludge Management- Roles of Stakeholders

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## Authority(Govt/DoE/PC B)

Legislate laws

Permit

Monitor

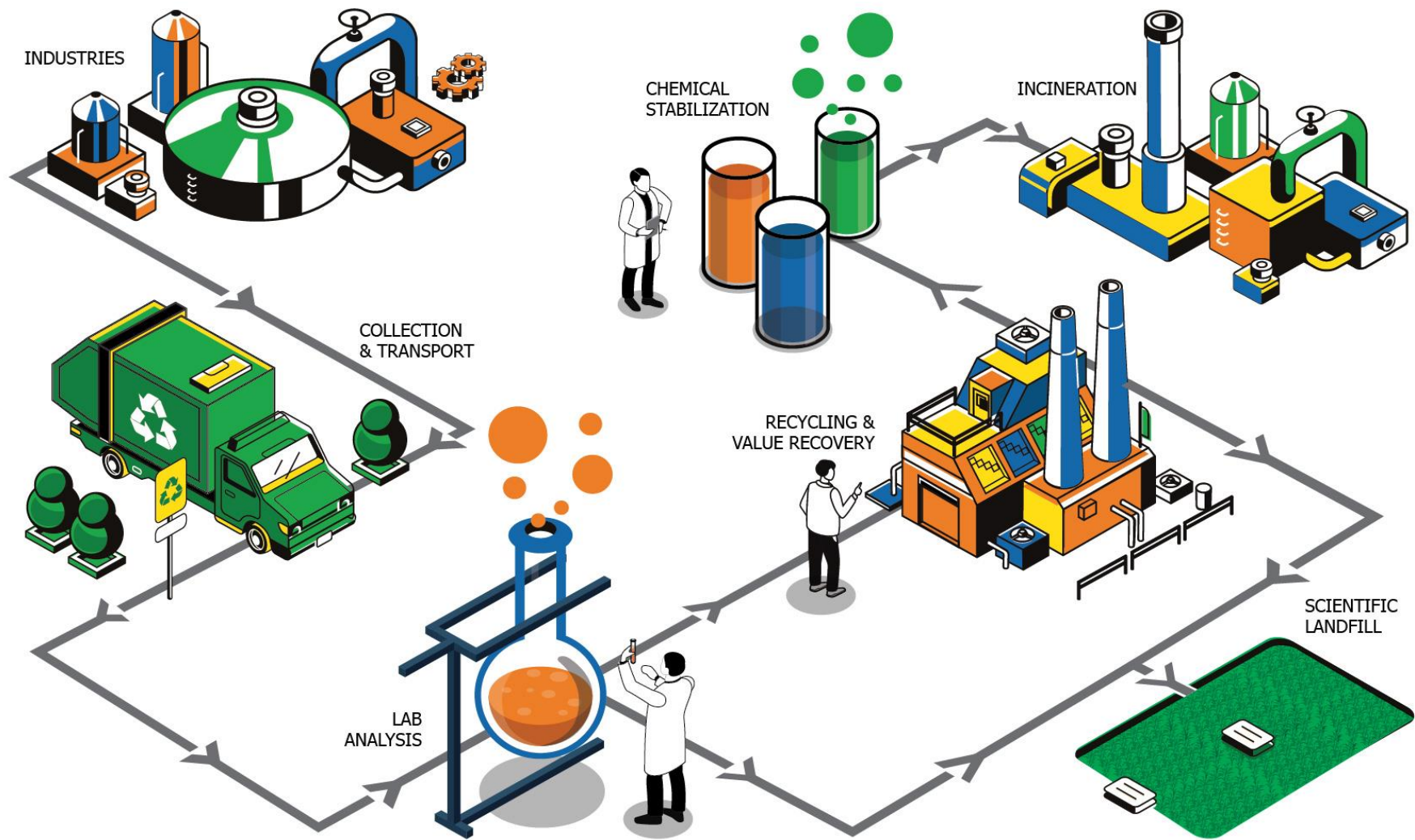
## Waste Generator

- Legislate laws
- Permit
- Monitor

## CHWT/SDF Operator

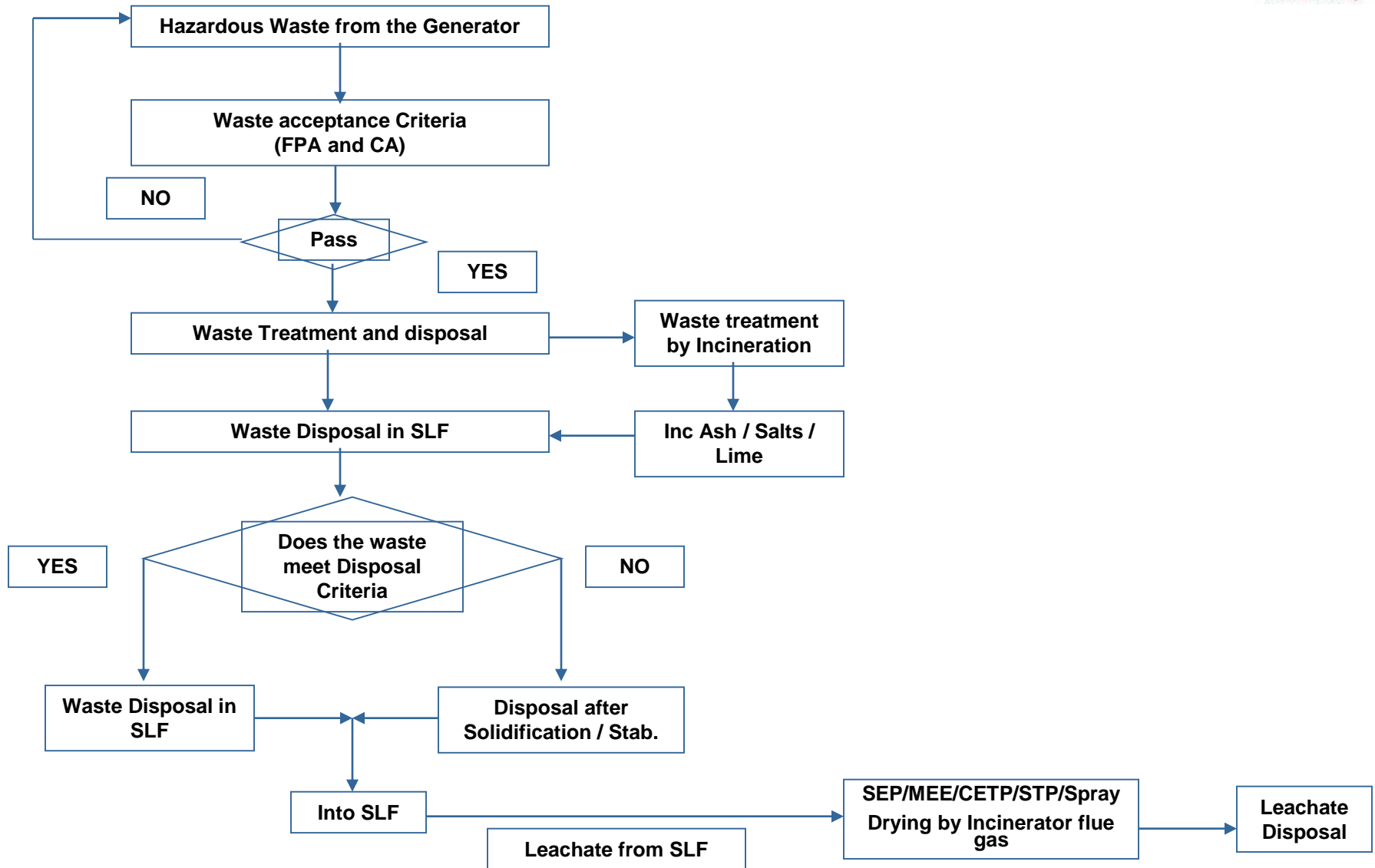
- Legislate laws
- Permit
- Monitor

# Hazardous Waste Management: Process Outline



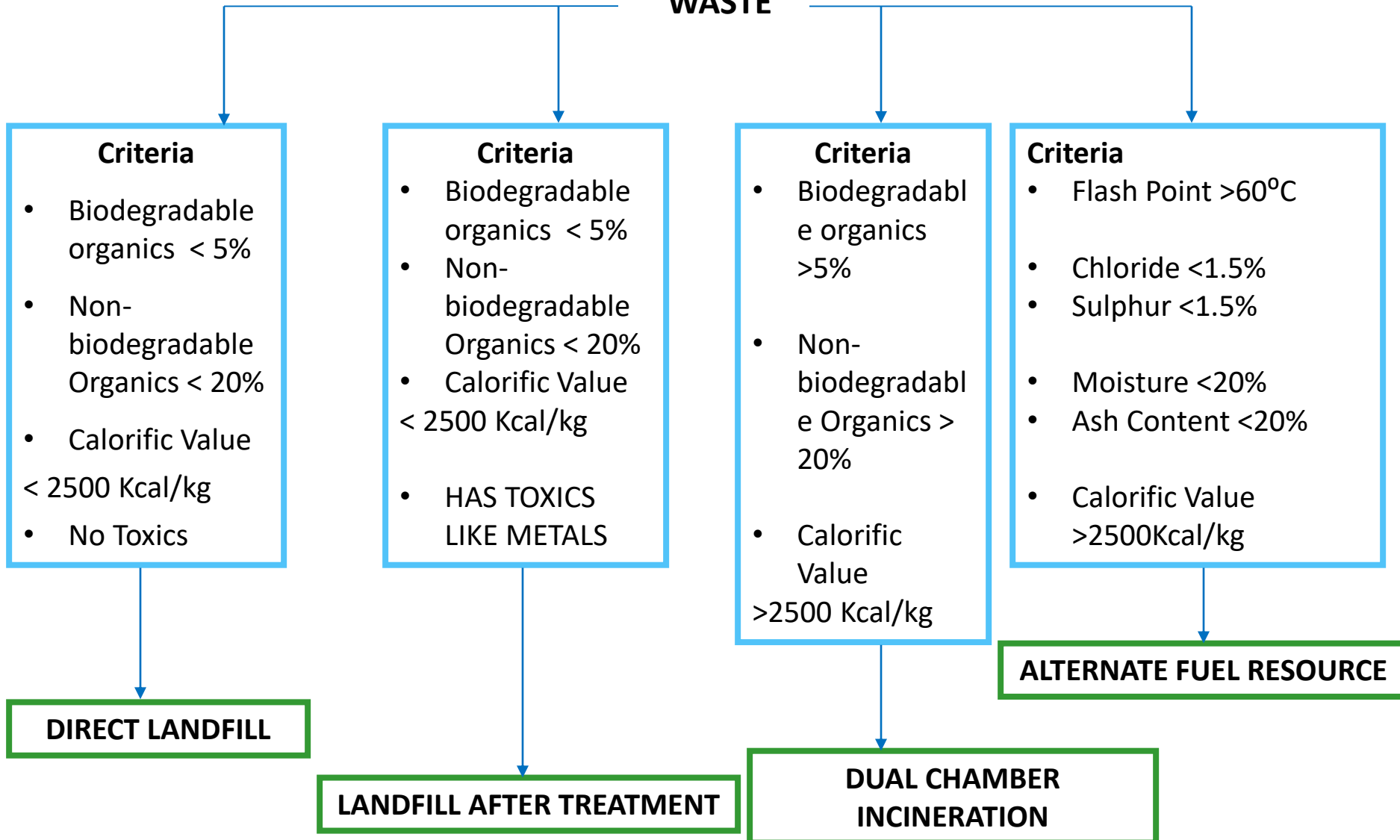


# Flow chart of Hazardous Waste Disposal



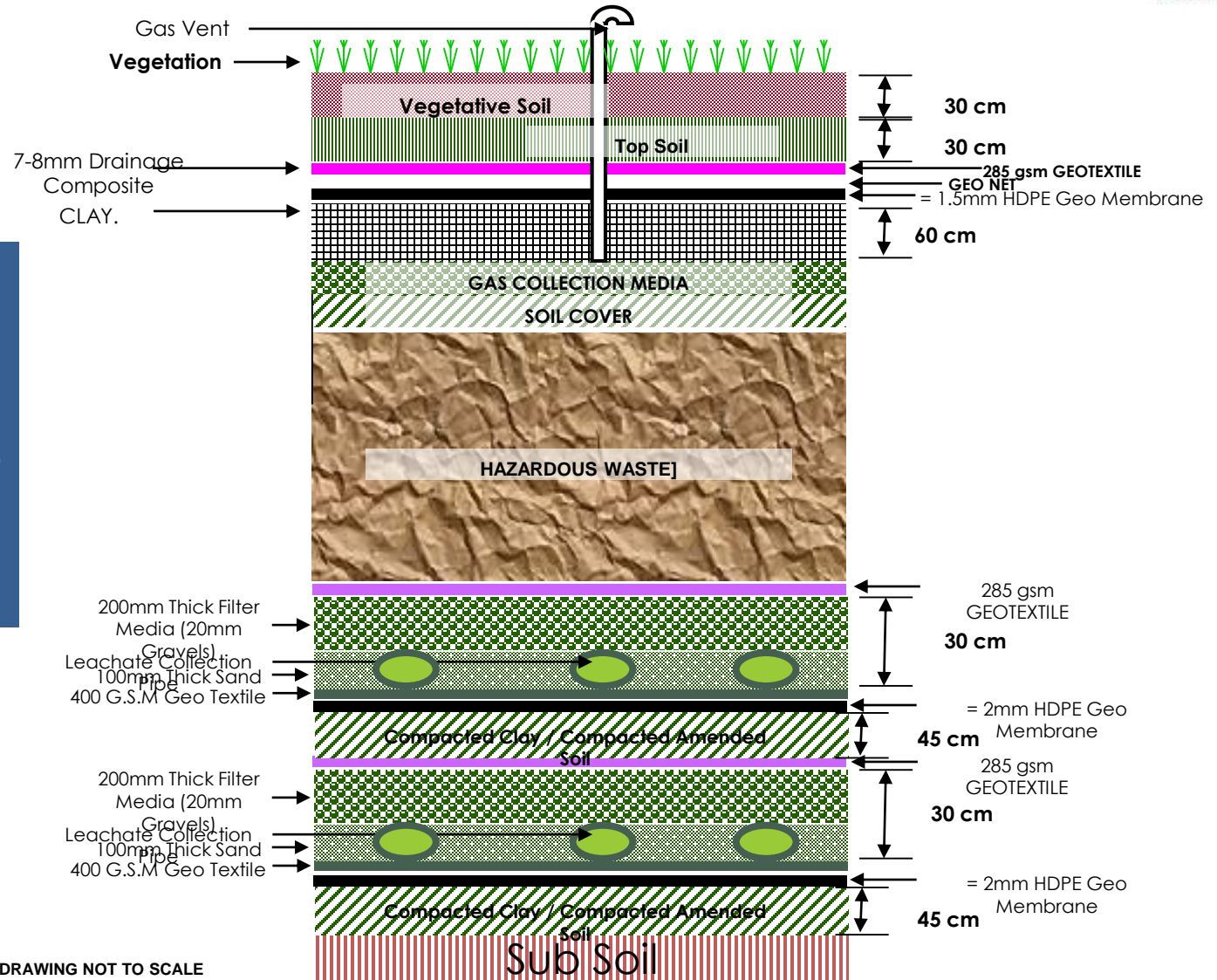
# Methods of Disposal

## WASTE



# Construction of Landfill

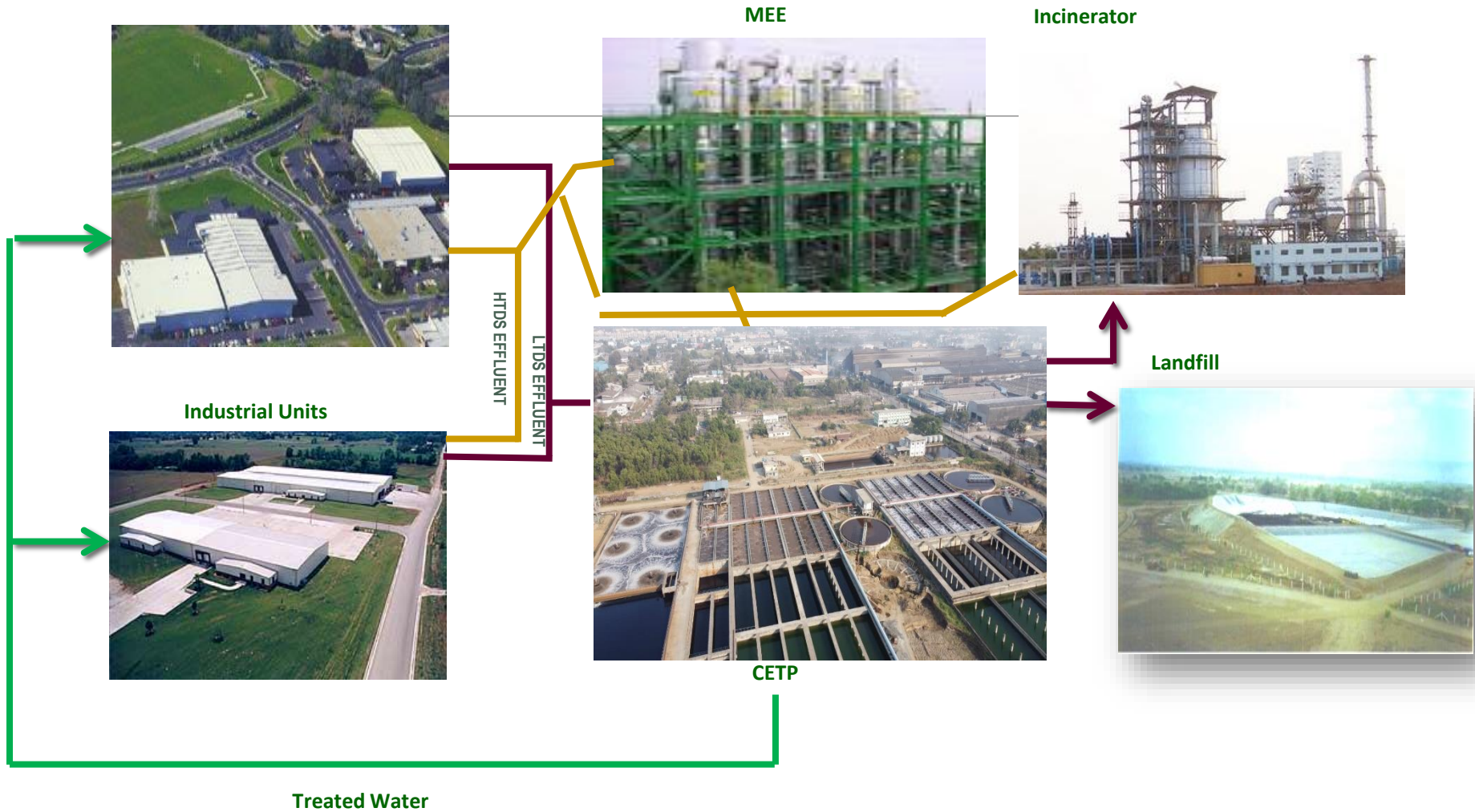
**Hazardous Waste  
Landfill Cross  
Section  
(Double Composite  
Liner & Cover System)**



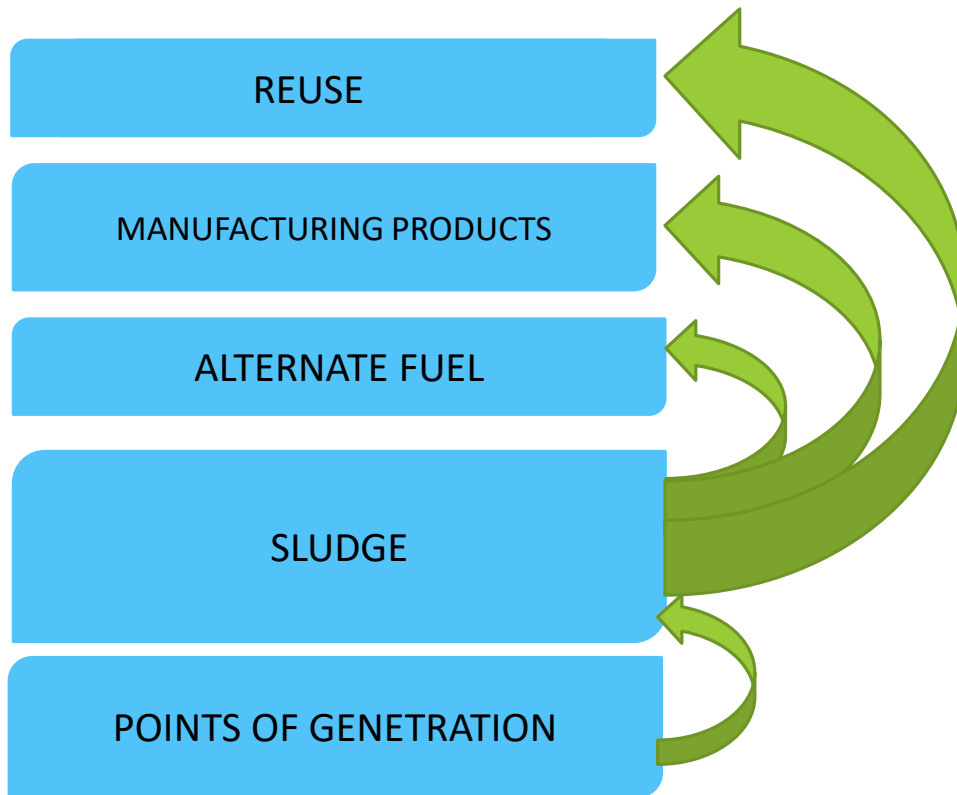
# SLF Construction, Landfill, Cap & Closure



# COMPREHENSIVE SOLUTION FOR SLUDGE MANAGEMENT



# THE JOURNEY TOWARDS CIRCULAR ECONOMY



## LINEAR ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste



## RECYCLING ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste

Recycle

Use



## CIRCULAR ECONOMY

Take  
↓  
Make  
↓  
Use  
↓  
Waste

Recycle

Return

Reuse

Repair



# ONE STOP SOLUTION FOR **SUSTAINABILITY**



A LEADING EMERGING ECONOMIES PLAYER WITH

# 85+

FACILITIES



**7 Mn**  
Tonnes of waste handled annually



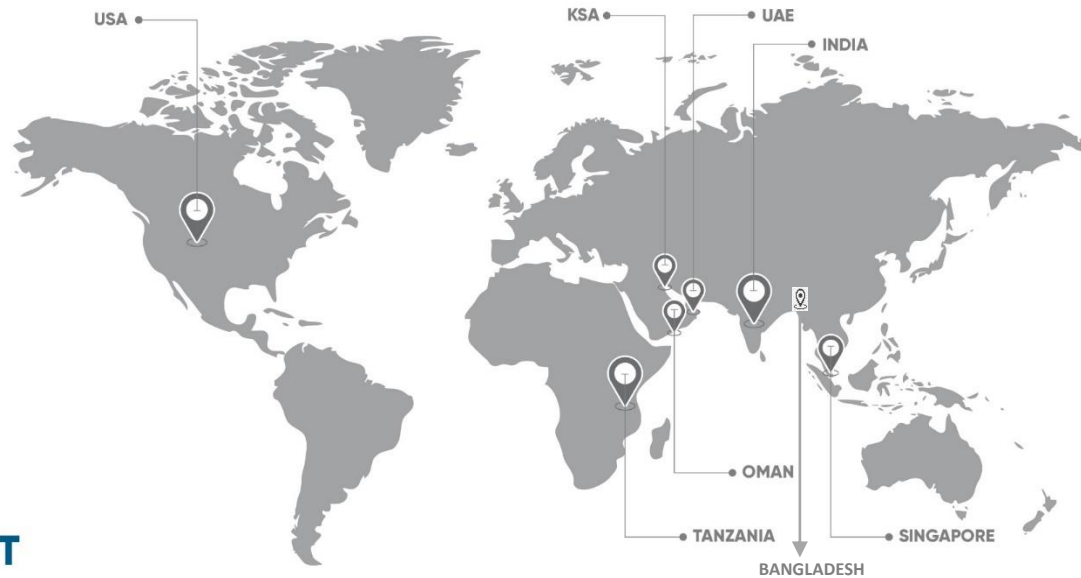
**35000**  
Customers



**20000**  
Employees



# ACCELERATING **SUSTAINABLE REVOLUTION** BY SERVING THE REGIONS THAT NEED US THE MOST



## GLOBAL FOOTPRINT

### SINGAPORE

Facility management  
Car park management  
Residential Waste Management

### USA

Marpol waste Facility  
(Houston & Corpus Christi, Texas)

### TANZANIA

Medical waste project  
(DAR)

### REGION-WISE PROJECTS

India: 54, Singapore: 60+, Profit Centers  
Middle East: 11



# THANK YOU

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**Bobby Kurien**  
**Subhu Pramanik**

**RE SUSTAINABILITY LIMITED**  
**RAMKY ENVIRO ENGINEERS BANGLADESH LTD**