



Developing Capacity and Methodology to Monitor Waste SDGs in Ghana

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Outline of Presentation



- 1. Sustainable Development Goals**
- 2. Waste SDGs Targets and Indicators**
- 3. Monitoring Methodology and Models**
- 4. Monitoring Challenges and Opportunities**
- 5. How to collect Waste Collect in Ghana?**





What is SDGs?





Solid Waste Related Goals

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12: Ensure sustainable consumption and production patterns



Targets and Indicators for Waste SDGs



UN-Habitat

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Targets

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Indicator

% of urban solid waste regularly collected and with adequate final discharge with regards to the total waste generated by the city

UN-Habitat
& WHO

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Targets

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally environment.

Indicator

% of wastewater safely treated (Definition of 'wastewater' include septage and fecal sludge)

UNEP

Goal 12: Ensure sustainable consumption and production patterns

Targets

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

Indicator

Treatment of waste, generation of hazardous waste, hazardous waste management, by type of treatment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

National recycling rate, tons of material recycled

Concept Model on Urban Waste (11.6.1)



% of urban solid waste regularly collected and with adequate final discharge

= Amount of waste environmentally adequately recycled, treated & landfilled – Re.



Definitions

Scope of Monitoring:

Municipal solid waste (wastes consisting of everyday items such as product packaging, grass clippings, furniture, clothing, bottles and cans, food scraps, newspapers, appliances, consumer electronics, and batteries.)

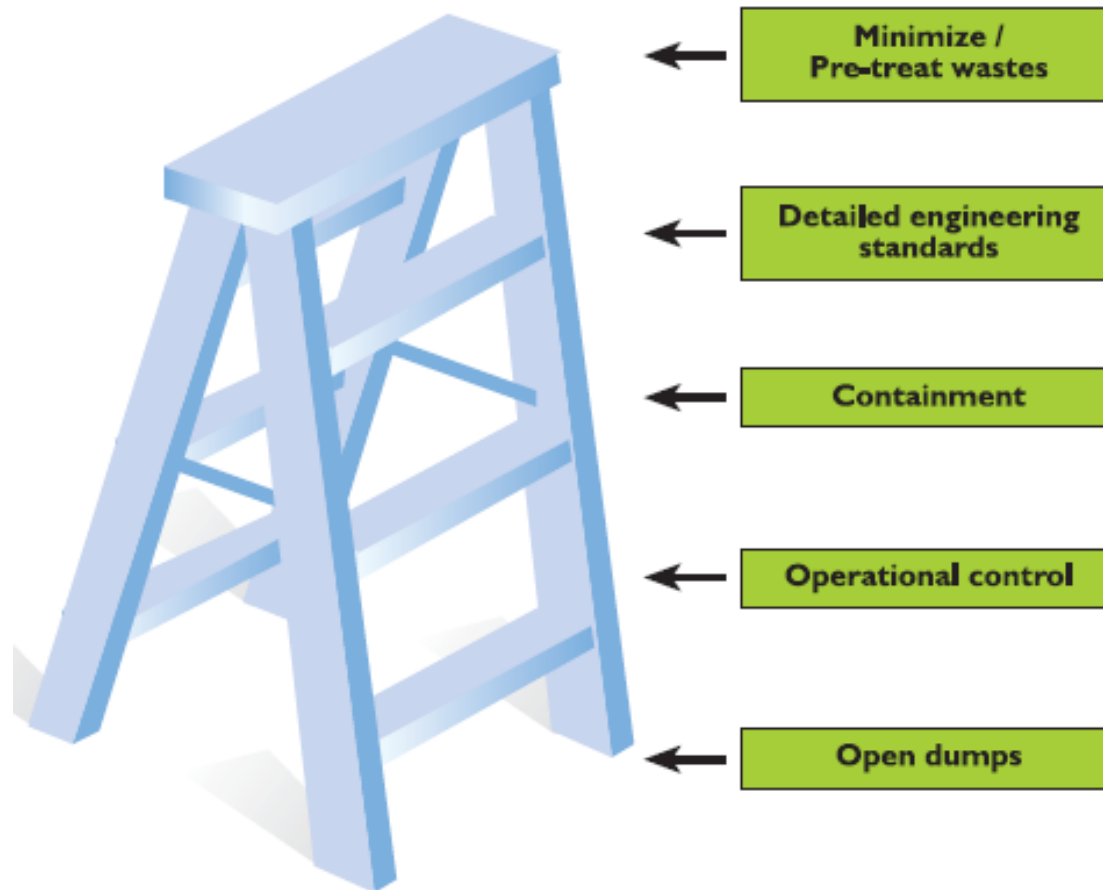
Environmental Adequacy:

Intermediate level of control

- Control over waste reception and general site management
- Control over waste treatment and disposal
- Degree of monitoring and verification of environmental controls



SDG Waste Ladder



Source: Stepwise progression controlling disposal
UN-Habitat (2010) *Status of Solid Waste Management in the World Cities*



Concept Model on Waste Water (6.3.1)



Domestic wastewater

Monitored

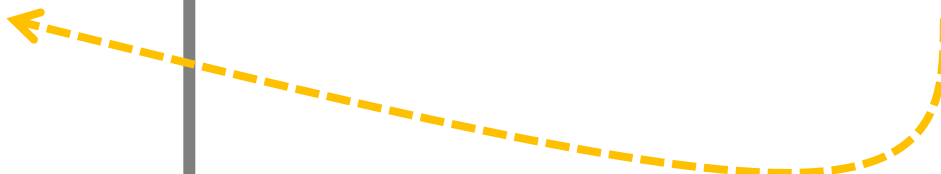


Wastewater monitoring establishes causes of poor water quality



Water quality

Monitored



Verify progress on wastewater management

Monitored



Industrial wastewater

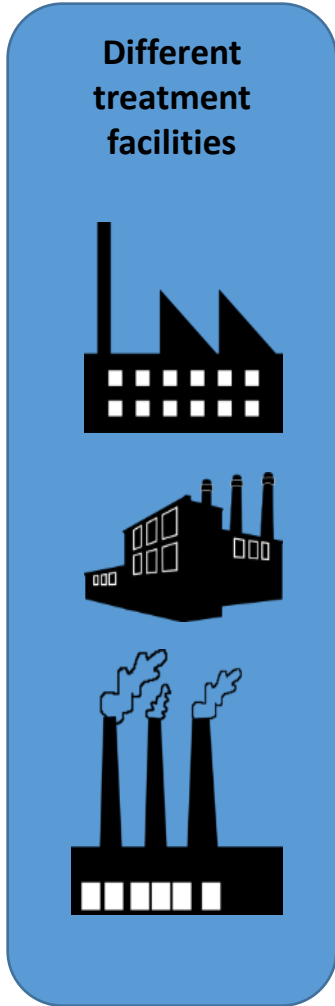
Concept Model On Hazardous Waste (12.4.2)



CATEGORIES OF WASTES TO BE CONTROLLED

WASTE STREAMS

Y1	Clinical wastes from medical care in hospitals, medical centers and clinics
Y2	Wastes from the production and preparation of pharmaceutical products
Y3	Waste pharmaceuticals, drugs and medicines
Y4	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5	Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6	Wastes from the production, formulation and use of organic solvents
Y7	Wastes from heat treatment and tempering operations containing cyanides
Y8	Waste mineral oils unfit for their originally intended use
Y9	Waste oils/water, hydrocarbons/water mixtures, emulsions
Y10	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
Y11	Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12	Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives



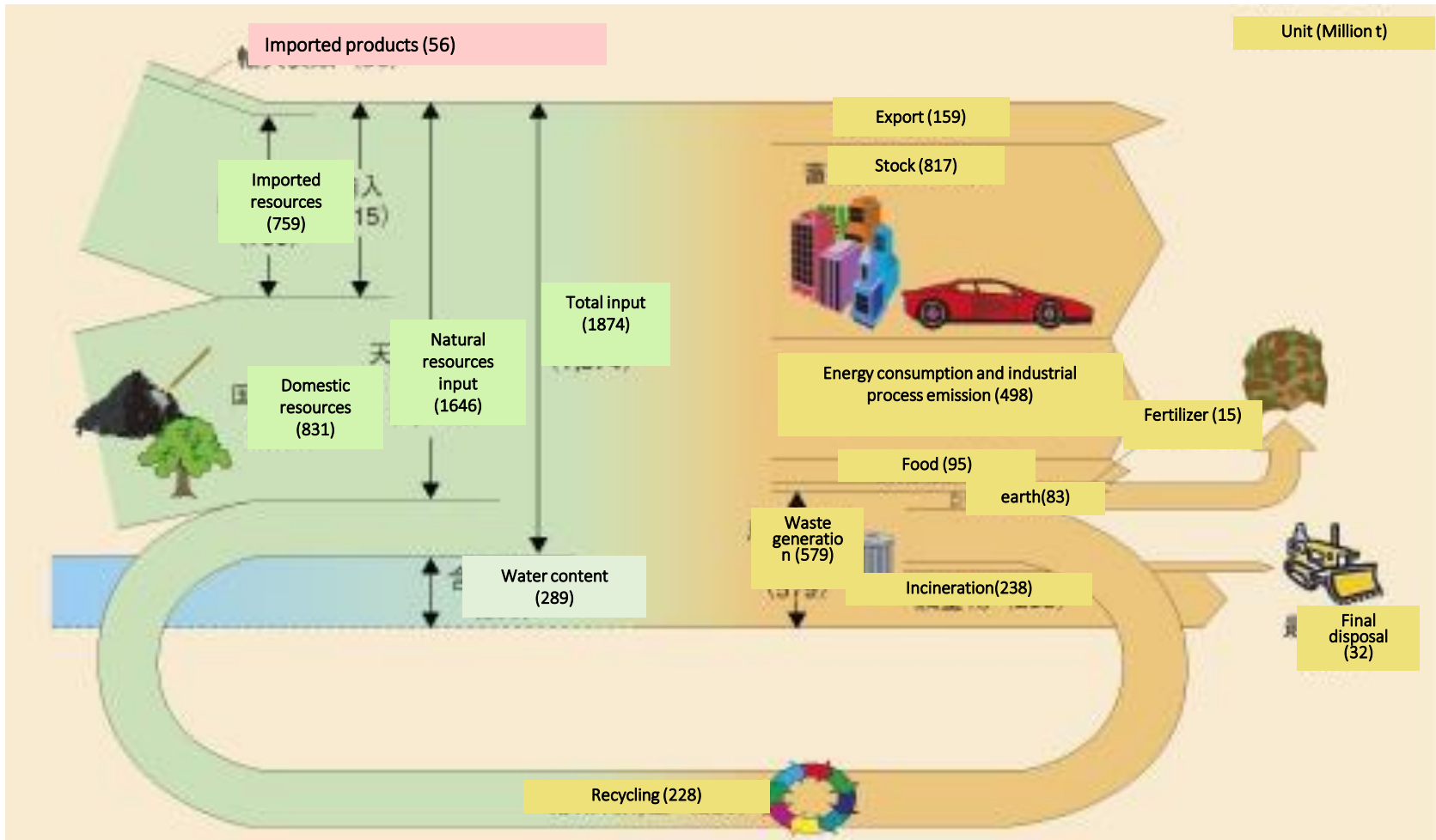
Different treatment facilities

Monitored

Environmentally Sound Disposal

Manifest system and monitoring is necessary

Concept Model on Recycling Rate(12.5)



Source: Environmental White Paper, Ministry of the Environment of Japan (2005)



Challenges and Opportunity for Monitoring Waste SDGs in Ghana

Challenges

- Putting in place systems to monitor the indicators
- Quality Data collection at the local or municipal level
- Capacity development for the personnel on monitoring method

Opportunities

- Existing ‘**institutional**’ arrangement for WM
- Measuring the waste related SDG indicators will help in **planning and inform policy decision making** (e.g. for SWM master planning, priority areas for intervention, etc.)
- Ghana has **political will and interest** in SW



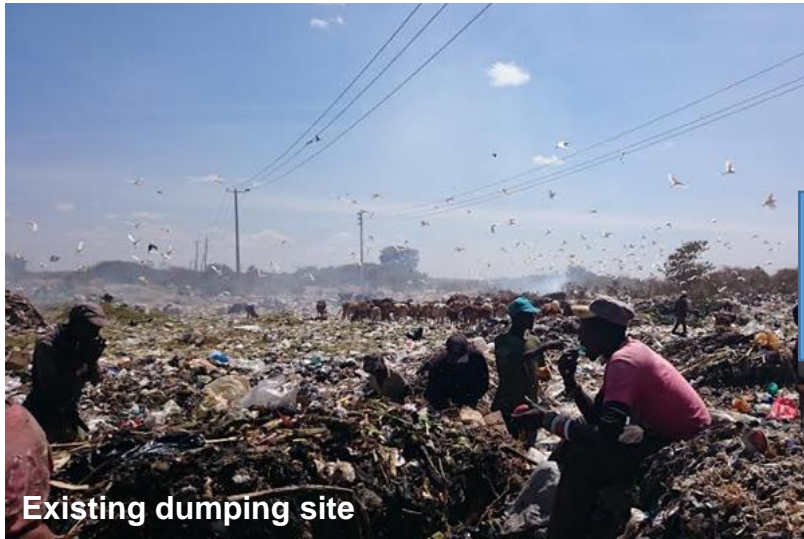
How to Monitor Waste in Ghana?

- **Waste generation survey**
 - Households
 - Restaurants, offices, markets, etc
 - Estimate on waste generation per capita
- **Informal recycling activities**
 - Interview to informal recyclers
 - Interview to waste pickers
 - Visit to material buying centres and recycling plants to check on their capacity and environmental impact
- **Disposal site**
 - Install weighing bridge or count no of trucks coming in





MONITORING OF PROGRESS



Existing dumping site



New pilot landfill site

0%



Could give **60%**



Could give **70%**

0%





Thank you

Credit: UN HABITAT