

GAPS IN DIAPER WASTE MANAGEMENT



THEME: COASTAL WASTE MGMT & MARINE PLASTICS



GAPS IN DIAPER WASTE MANAGEMENT

STAKEHOLDER

MR NAGRAJ BAJAL
PROJECT MANAGER HASIRUDALA
MANGALURU

Core Issue

Lack of segregation, collection, and treatment facilities for diaper waste leads to environmental pollution, public health hazards, and resource wastage.

Constraints

- Collection Gaps – No dedicated bins or routes for diaper waste.
- Mixed Waste Contamination – Diapers are often combined with kitchen waste, making handling more hazardous.
- Limited Treatment Facilities – Few plants equipped for hygienic disposal or recycling of diaper materials.
- Health Risks – Handling without protective gear exposes workers to pathogens.
- Low Public Awareness – Users rarely segregate diapers from other waste streams.

Context

Disposable diapers are a growing waste problem in urban areas like Mangalore, with high usage in households, hospitals, and daycare centers. Made of superabsorbent polymers, plastics, and cellulose, diapers are non-biodegradable, bulky, and often mixed with general waste. Without a separate disposal system, they end up in landfills or open dumps, where they take centuries to degrade and can leak pathogens into soil and water.

Groundwork to be considered

- Where are the main sources of diaper waste in Mangaluru (homes, hospitals, child care centers), and which wards produce the most?
- How much diaper waste is generated daily or weekly in each ward?
- How can people be made aware to keep diapers separate from other waste?
- Where should special bins or collection bags be placed, and how should routes be planned for quick pickup?
- What simple pre-treatment is needed (cleaning, drying, shredding) before final disposal or recycling?



- Which local methods are best—burning in controlled incinerators, composting after sterilization, or recovering plastics from diapers?
- How can smell and germs be controlled during collection and storage?
- Can the recovered materials (plastics, processed compost) be sold locally to cover costs?
- Is it better to process diapers ward-by-ward or at one central facility for the whole city?
- What rules from Mangaluru City Corporation and State Waste Management need to be followed?

Existing Systems

- Diapers are collected with mixed municipal solid waste.
- No specialized sanitary disposal for diapers.
- Small-scale incineration in some hospitals, without full resource recovery.
- Informal sector handling: Rarely processes diapers due to low value and health hazards.
- Basic awareness drives: No diaper-specific campaigns.