



Kerala's Best Practices in Waste Management



U.V. JOSE IAS (Retd.)
Executive Director,
SUCHITWA MISSION,
LOCAL SELF-GOVERNMENT DEPARTMENT (LSGD),
GOVERNMENT OF KERALA.

HARITHAMITHRAM



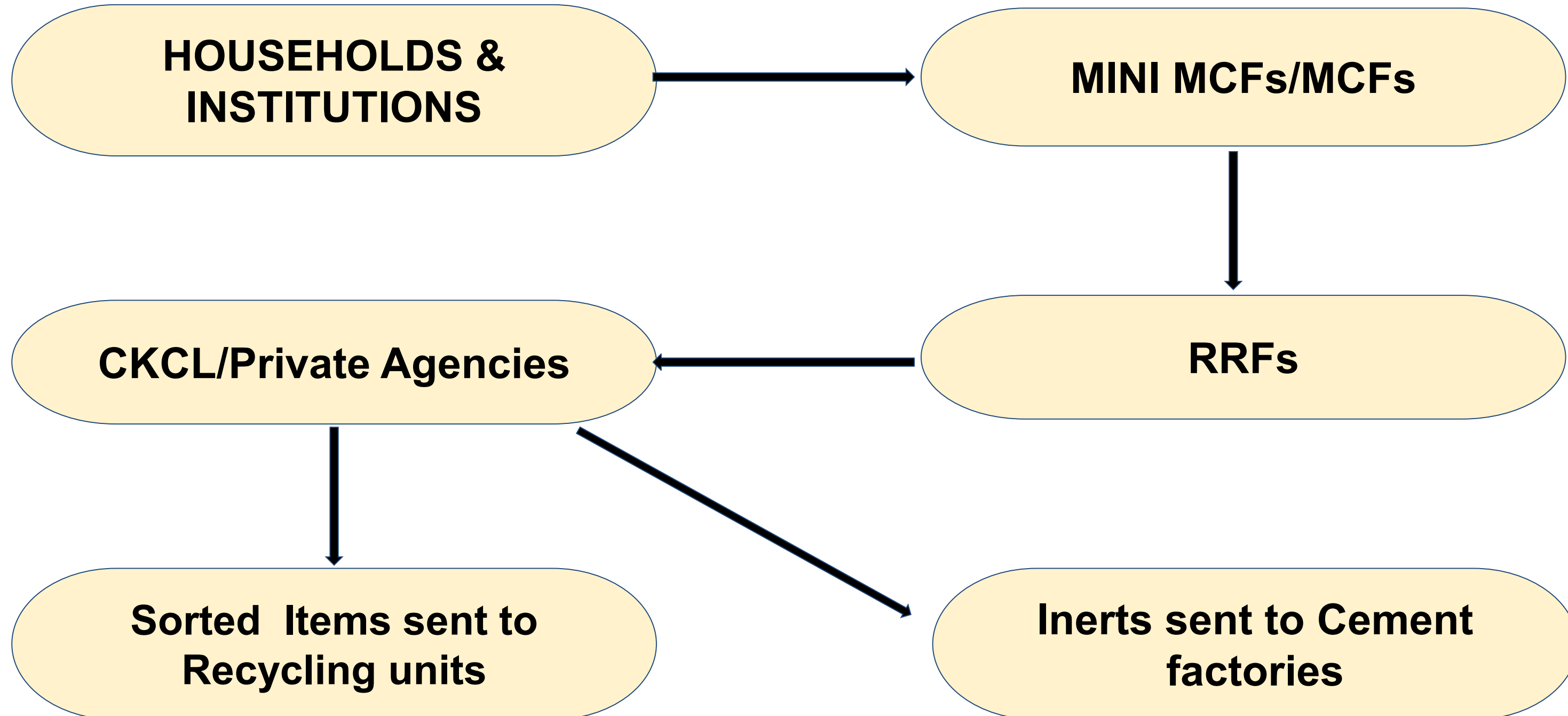
SMART GARBAGE MONITORING APPLICATION - OVERVIEW

- The Harithamithram application offers a comprehensive real-time interface, capturing data on the collection, storage, and transportation of waste.
- The application provides data on door-to-door collection of waste, storage and recovery facilities and transportation of the collected waste based on the live interaction between the service providers, consumers and the collection channel.
- The door-to-door collection, an integral part of the campaign, has been carried out by the Haritha Karma Sena—a dynamic, woman-led team that is part of Kudumbashree.

OBJECTIVES OF THE PROJECT

- Establishment of IT enabled Waste Management Monitoring System
- Online platform for citizen to participate and promote clean and green Kerala
- Set up a platform for coordination between the stake holders, agencies and the officials.
- Establish a centralized control room for the state for progress monitoring
- Promoting the Haritha Karma Sena into technology enabled domain
- System for addressing and resolving Customers complaints through a system
- Monitoring the developments of local self-governing bodies in waste management
- State level, district and LSGI level waste quantitative assessment

PROCESS FLOW



BENEFITS OF PROJECT

- State level and LSGI level waste quantitative assessment can be done through the system
- Effective system building for solid waste management in the state of Kerala
- Proper planning in solid waste management can be done using the system
- Unorganized and non-systematic waste collection can be addressed by an effective IT based solution
- Promoting the Haritha Karma Sena into technology enabled domain
- Customer as well service provider can resolve the field level complaints through the system
- Authority can avail continued and comprehensive monitoring facility on fingertip
- Ensuring the citizen participation in solid waste management who avails the service through this platform

Haritha Karma Sena: Women-Led Waste Management through SHGs



- The **Haritha Karma Sena** (HKS) the Green Task Force , is the cornerstone of Kerala's Solid Waste Management system.
- Empowers women, primarily from Kudumbashree neighborhood groups

37,369

Harithakarma Sena
Members

4438

Enterprise Units

1029

Consortia

1034

Local Bodies

* Minimum 2 HKS members per ward

Haritha Karma Sena Service Models

Model	Urban	Rural
Focus	Core waste management services <ul style="list-style-type: none"> ▪ Door-to-door collection, ▪ Management of MCFs & RRFs ▪ Sale of recyclables and eco-friendly products ▪ Waste management for special events. ▪ Sale of Compost, Biogas and Slurry ▪ Inoculum production ▪ Maintenance of public utilities & toilets ▪ Steel vessel rentals to promote green protocol 	Core waste management services supplemented by allied activities <ul style="list-style-type: none"> ▪ Organic farming ▪ Catering units ▪ LED manufacturing ▪ Repair shops
Impact	High income generation	High income proportionate to the time invested.
Income	Average Rs.15,000/month & Above Rs.30,000/month in some LSGIs	

Kudumbashree - Facilitator

- Kudumbashree is the **poverty eradication and women empowerment programme** implemented by the State Poverty Eradication Mission (SPEM) of the GoK.
- Vital link between **community needs and local governance** in Kerala.
- Undertakes identification, capacity-building, and positioning of a skilled workforce in waste management.
- **Neighborhood Groups** (NHGs) - primary level units; **Area Development Societies** (A.D.S) at the ward level; **Community Development Societies** (C.D.S) at the local body level.

Leveraging
Kudumbashree's SHG
network



3 Lakh NHGs



19,470
A.D.S



1070
C.D.S



52%+
Households



46.16
Lakhs
Women

Haritha Karma Sena-Genesis

Strategy Shift in Waste Management in 2015-2016

- HKS introduced as total solution provider
- Grassroots, community-based system banking on **Kerala's unique strengths**
 - High social capital and a strong sense of community
 - Strong local governments
- Technical support and capacity building under **Suchitwa Mission**
- Strong **forward linkages** established with **Clean Kerala Company** for recycling
- A **campaign- based approach** leading to expansion of services to all local bodies

Clean Kerala Company Limited:

A Sustainable Waste Management Initiative

Company formed in **2012** under the Indian company act 1956.

Constituted under **LSGD**, the authorised share capital of the company is Rs. 50 Cr and paid up capital of Rs. 13 Cr.



CKCL Core Activities



Forward linkage of collected Dry Waste

Ensure forward linkage of dry waste collected through door-to-door pickup by Haritha Karma Sena units.



Recycling Industry Link

Recyclable dry waste is channeled directly to recycling industries.



RDF to Cement Factories

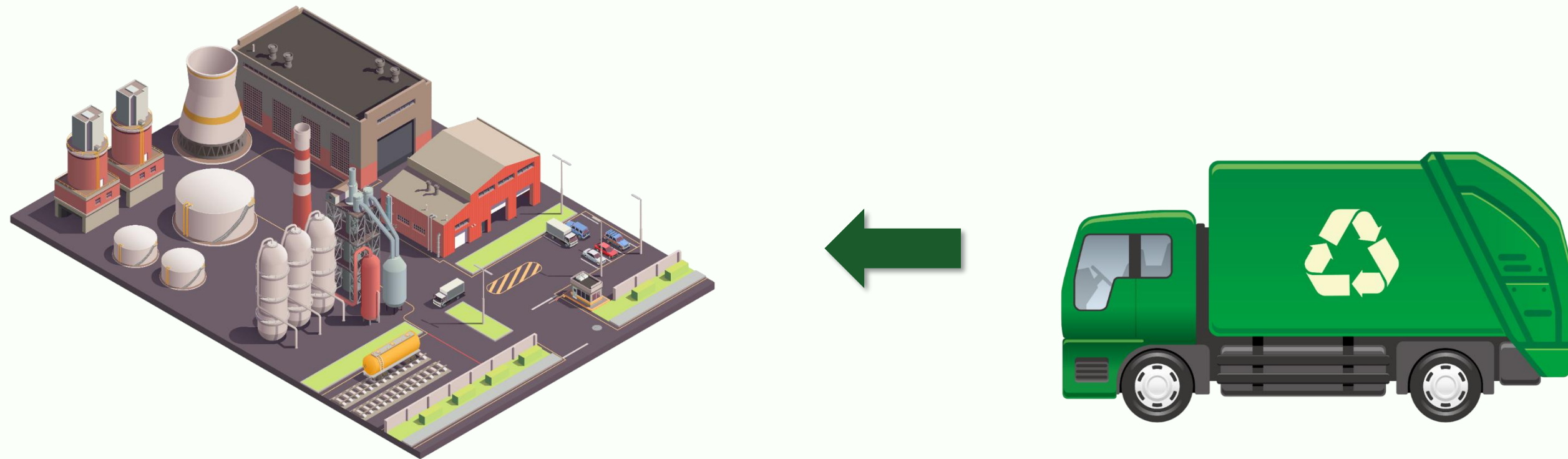
Non-recyclable combustible waste is transported to cement factories for co-processing as RDF.

Green Park by CKCL

- First government owned and operated plastic waste recycling plant has become operational in Pathanamthitta district, Kerala on 31.12.2024.
- Can process **2-5 TPD** of plastic waste.
- Built on **1 acre** of land at a cost of **Rs. 8 Cr.**
- The project's long-term goal is to establish similar recycling plants across all districts of Kerala



Non-recyclable Materials to Cement Factories



Agreement with Cement Companies

- Dalmia Cement (Bharath)
- Chettinad Cement
- ACC
- Ultratech

On an average, 5,000 MT/month of non-recyclable materials handed over.

CKCL- Other activities

- Supporting LSGIs in **Operation and Maintenance of RRFs**
- Supply of Shredded Plastic for Polymerised Road Construction
(Nearly 4000 MT Shredded plastic produced and constructed 6473 km polymerized road within the state)
- Collection and forward linkage of **E-waste** from Offices, Educational institutions, households, etc
- Collaboration with private agencies having agreement with cement factories for the forward linkage of waste from LSGIs, demonstrating a successful model of **public-private partnership**.
- Training, awareness and capacity building of LSGIs, HKS and other departments

Thank you

