

SOLID WASTE MANAGEMENT GUIDEBOOK FOR RURAL AREAS

Center for Water and Sanitation (CWAS),
CRDF, CEPT UNIVERSITY

In collaboration with
HDFC Bank's Parivartan Program



साहित्य पुनर्प्राप्ती सुविधा
MATERIAL RECOVERY FACILITY (MRF)

गंजाड, ता. डहाणू, जि. पानघर
 Ganjad, Tal. Dahane, Dist. Palghar

CWAS
 CRDF



HOFC Bank Parivartan's
 FOCUSED RURAL DEVELOPMENT PROGRAMME IN
Material Recovery Facility (MRF)
 Village - Ganjad
 Taluka - Dahane, District - Palghar, Maharashtra
 Implemented by Center for Water and Sanitation (CWAS),
 CRDF, CEPT University

HOFC BANK
 PARIVARTAN

गाम पंचायत गंजाड

LIFE

सुखी
 पाणी
 स्वच्छ
 जल

मज्ही
 Yashwantrao Chavan
 कृषि-पुनर्वसन
 परियोजना

SOLID WASTE MANAGEMENT GUIDEBOOK FOR RURAL AREAS

Center for Water and Sanitation (CWAS),
CRDF, CEPT UNIVERSITY

In collaboration with
HDFC Bank's Parivartan Program



About the Guidebook

Aligned with the Majhi Vasundhara Abhiyan, the Centre for Water and Sanitation (CWAS) implemented various environment-friendly initiatives in villages. Under this initiative, significant work was undertaken in the areas of rainwater harvesting and solid waste management. These efforts contributed to promoting drinking water security and the development of clean and sustainable villages. Based on these experiences, this Solid Waste Management guidebook has been developed.

Prepared by

Center for Water and Sanitation (CWAS),
CRDF, CEPT University

Authors

Upasana Yadav
Apoorva Bhate
Shivani Parkhi
Raju Kothangire
Devanshi Shah

Supported by

Dhruv Bhavsar
Aasim Mansuri
Aditi Dwivedi
Chirag Patel
Manish Kulkarni
Vishal Jadhav

This document may
also be accessed
online through this
QR code.



ACKNOWLEDGEMENT

Solid Waste Management (SWM) in rural India continues to face systemic challenges such as open dumping along roadsides and water bodies, limited awareness, weak collection systems contributing to environmental degradation and public health risks. Interventions such as community bins and compost pits have been introduced under Swachh Bharat Mission - Gramin but sustained segregation, regular collection, processing, and recycling systems remain weak, highlighting the need for strengthened implementation, behavioural change, and institutional mechanisms at the village level.

The Center for Water and Sanitation (CWAS) at CEPT University, in partnership with HDFC Bank's Parivartan Program, is supporting 50 villages across Palghar, Dahanu, and Mokhada blocks in Palghar district to strengthen sustainable solid waste management and drinking water security. The initiative promotes community-led solutions through awareness drives, exposure visits for village sanitation committees, SHG engagement, waste segregation trainings, and establishment of cluster-level segregation facilities, while working closely with Gram Panchayats and district officials to streamline the SWM value chain.

The "Solid Waste Management Guidebook for Rural Areas" serves as a practical resource for Gram Panchayat officials, communities, and field teams. It provides step-by-step guidance across the SWM value chain at household and village levels and supports capacity building for effective implementation in rural areas.

The CWAS team acknowledges the valuable support of the Palghar District Administration, Gram Panchayat officials, and community members, whose active participation has helped shape this initiative. We sincerely thank Mr. Manoj Ranade (IAS), Chief Executive Officer, Zilla Parishad Palghar; Mr. Ravindra Shinde, Additional Chief Executive Officer; and Mr. Atul Paraskar, Project Director, District Water and Sanitation Mission, for their valuable support and guidance. We also extend our special thanks to Mr. Sanjay Bhoje (Block Development Officer, Palghar), Mrs. Pallavi Saste (Block Development Officer, Dahanu), and Mr. Akshay Pagar (Block Development Officer, Mokhada) for their cooperation and support. We express our gratitude to HDFC Bank's Parivartan Program for their partnership, commitment, and support in strengthening rural waste management. This initiative aims to create a scalable model for other rural areas, ensuring sustainable and long-term practices for communities.

Mr. Dhruv Bhavsar and Mr. Aasim Mansuri

Center Heads - CWAS, CRDF, CEPT University

भारत

कूड़ेदान का
प्रयोग करें।

मुझे
प्रयोग
करें



TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION TO SOLID WASTE MANAGEMENT

1

- 1.1 EXISTING SCENARIO OF SOLID WASTE MANAGEMENT IN RURAL AREAS
- 1.2 IMPORTANCE OF SOLID WASTE MANAGEMENT IN RURAL AREAS
- 1.3 SOLID WASTE SERVICE CHAIN
- 1.4 TYPES OF SOLID WASTE

CHAPTER 2: STEP BY STEP PLANNING FOR SOLID WASTE MANAGEMENT

6

- 2.1 AWARENESS AMONG COMMUNITIES
- 2.2 INSTITUTIONAL SET UP AND ASSESSMENT IN VILLAGE
- 2.3 WASTE CHARACTERIZATION SURVEY
- 2.4 IDENTIFYING DRY WASTE MANAGEMENT APPROACH
- 2.5 IDENTIFYING WET WASTE MANAGEMENT APPROACH
- 2.6 IDENTIFYING WASTE COLLECTION APPROACH
- 2.7 LAND ALLOCATION FOR PROCESSING FACILITY
- 2.8 CAPITAL EXPENDITURES
- 2.9 OPERATIONAL EXPENDITURE
- 2.10 FINANCIAL CALCULATIONS
- 2.11 CAPACITY BUILDING
- 2.12 SOLID WASTE MANAGEMENT ACTIVITY TIMELINE

CHAPTER 3: STEP BY STEP OPERATIONS FOR SOLID WASTE MANAGEMENT

19

- 3.1 OPERATIONAL MODULE
- 3.2 CHECKLIST OF ACTIVITIES
- 3.3 IDENTIFICATION OF FORWARD LINKAGES
- 3.4 REVENUE GENERATION THROUGH SWM PRACTICES

CHAPTER 4: CASE STUDY OF GANJAD VILLAGE, DAHANU

24

1

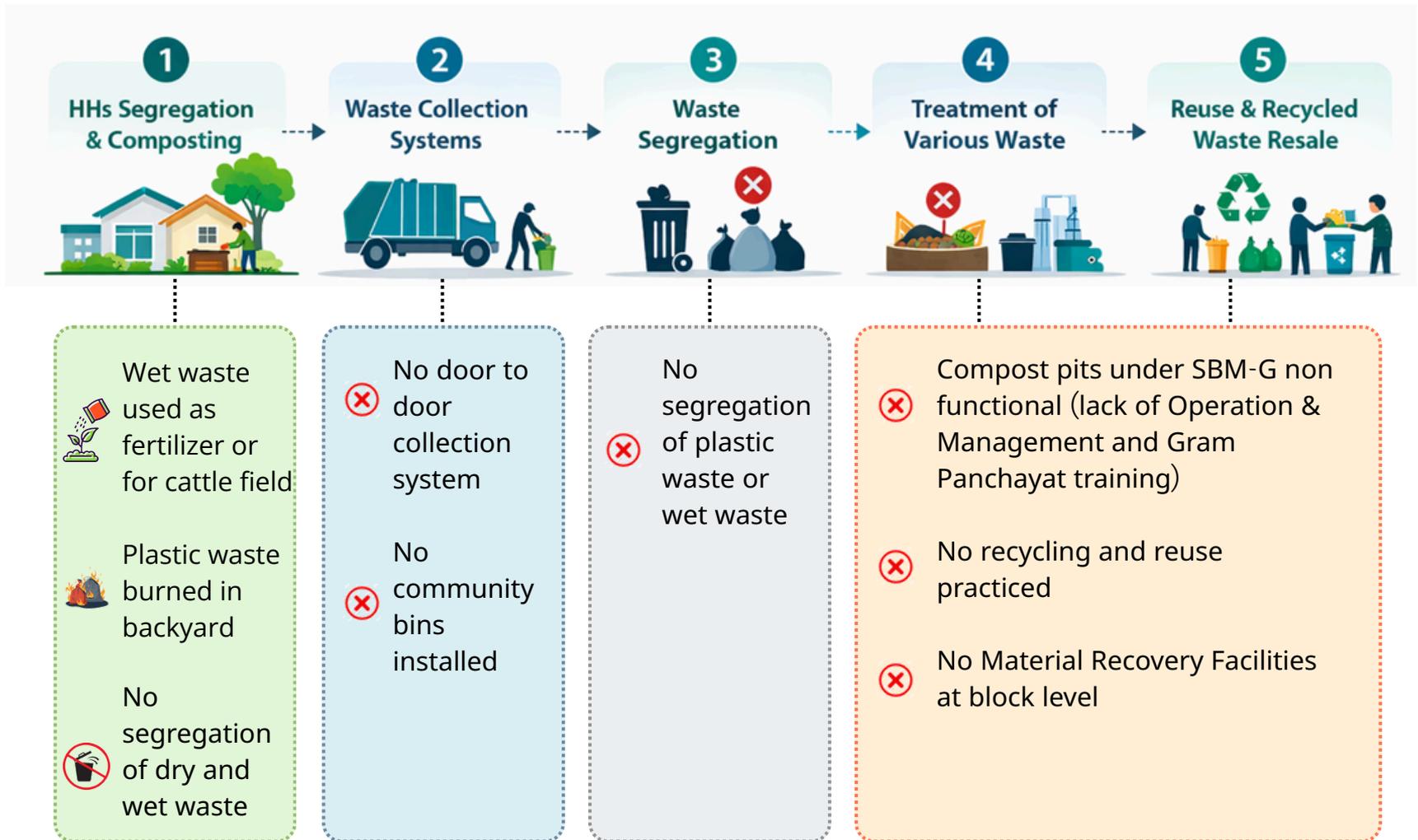
INTRODUCTION TO SOLID WASTE MANAGEMENT

A rural household in Maharashtra generates 0.1–0.2 kg of waste per person daily, amounting to significant volumes annually. Thus, requiring an optimized SWM service chain for safe management.



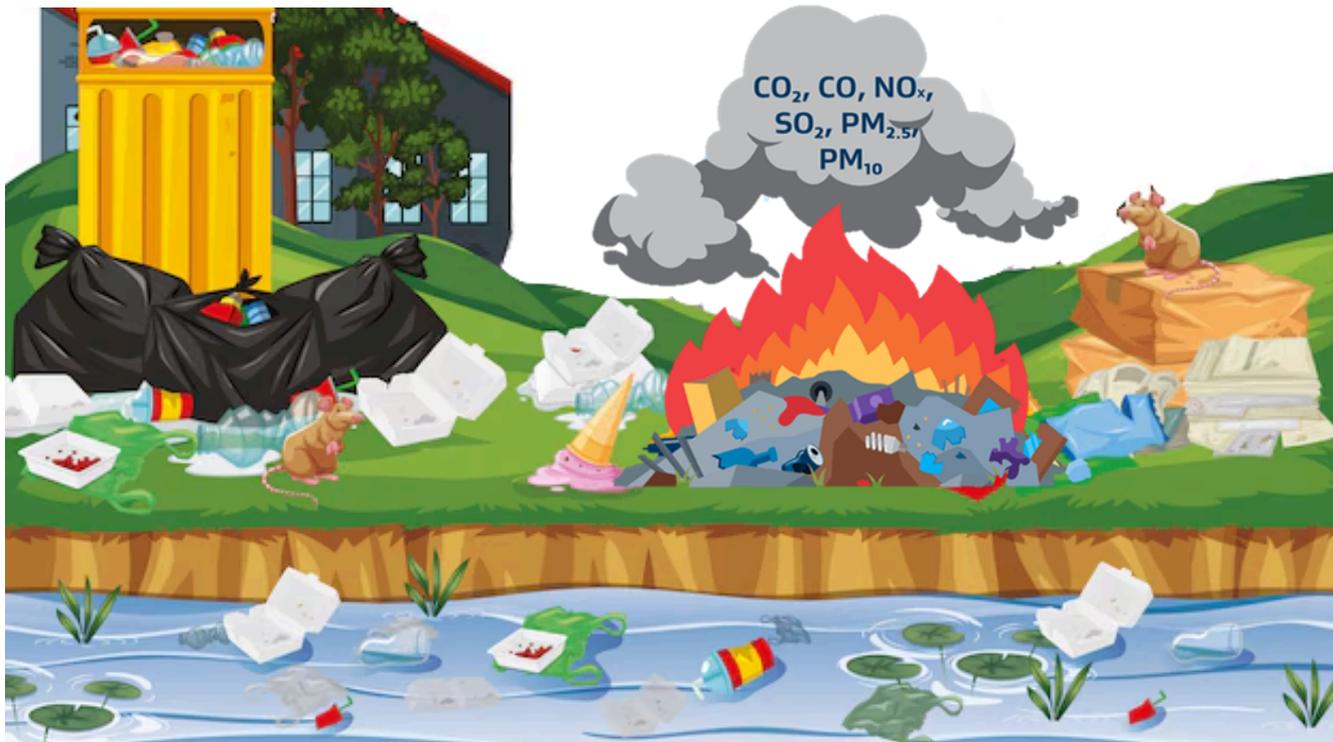
1.1 EXISTING SCENARIO OF SOLID WASTE MANAGEMENT IN RURAL AREAS

Solid waste management in rural areas faces several challenges, including lack of waste segregation, limited door-to-door collection, and improper disposal practices such as open burning and dumping. These gaps lead to environmental pollution and pose risks to public health and local water sources.



1.2 IMPORTANCE OF SOLID WASTE MANAGEMENT IN RURAL AREAS

Uncollected and openly dumped waste attracts disease-carrying vectors such as flies, mosquitoes, and rodents, increasing the spread of illnesses like malaria and dengue. Additionally, open dumping and burning of dry waste release harmful pollutants, which can cause respiratory problems and other long-term health issues.



Unmanaged waste attract flies, mosquitoes, and rodents, increasing the spread of diseases

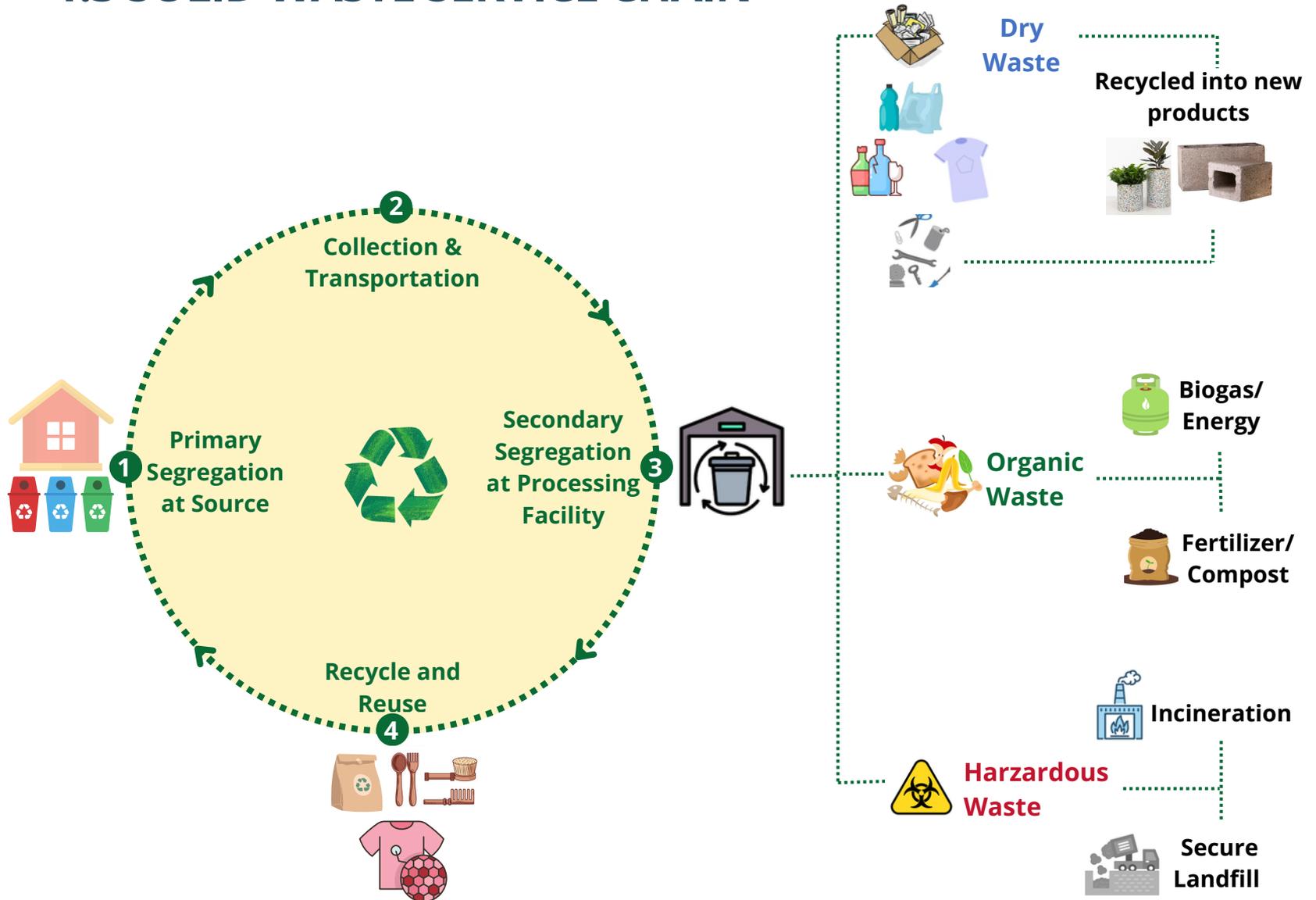
Burning plastics like PVC produces highly poisonous chemicals which can cause serious health / breathing problems

Liquid waste from open dumps seeps into water resources making water unsafe for drinking and farming

Ingestion of plastic waste by cattle and stray animals leads to serious illness or death

Open dumping of waste degrades land quality and reduces soil fertility over time.

1.3 SOLID WASTE SERVICE CHAIN



Optimizing the solid waste management value chain ensures efficient resource recovery, reduced environmental impact, lower operational costs, and improved sustainability outcomes.

1.4 TYPES OF SOLID WASTE



WET WASTE

Biodegradable and Agriculture Waste

- Vegetable & fruit peels
- Rotten fruits & vegetables
- Tea residue
- Eggs shells, coconut shells
- Meat remains
- Used flowers/ dry flowers
- Dry leaves, etc.



DRY WASTE

Non Biodegradable Waste Recyclables

- Empty plastic bottles, shampoo bottles, soap covers
- Empty milk cartons
- Plastic cups, bags, straws
- Paper, cardboard
- Chips & biscuit packets
- Aluminum foils, metal scarp, etc.

Non Recyclables

- Tetra packs, carbon paper, thermocol etc.



HAZARDOUS WASTE

Hazardous and Biomedical Waste

- Old batteries, fused bulbs, electrical items
- Expired medicines, used syringe
- Sanitary napkins, children's diapers
- Old chemical cleaners, pesticides
- Tissues/ cottons used for medical purposes, etc.

Bin it right!!!

“Understanding the waste is important but the real question is, where do we begin?”



2

STEP BY STEP PLANNING FOR SOLID WASTE MANAGEMENT

*Well-planned SWM process empower Gram Panchayats to
convert waste challenges into opportunities.*

2.1 AWARENESS AMONG COMMUNITIES

Awareness campaigns are crucial for helping communities understand proper waste management practices and procedures. The campaign can be taken up by GP officials and SHG members drives behavioural change, improves segregation and participation, and enhances the overall effectiveness of the SWM system. using multiple approaches:



Community group discussions



School activities



Street plays



Cleanliness drives



Exposure visits to good practicing village

Key Message through Awareness Activities



Avoid littering and burning



Type of waste and segregation



Waste recycling and reuse

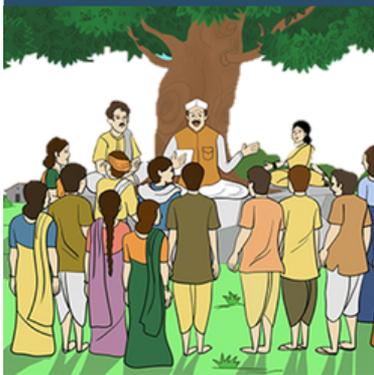


Composting of waste

2.2 INSTITUTIONAL SETUP AND ASSESSMENTS IN VILLAGE

To initiate effective waste management practices in a village, and to enable collaboration and participatory planning, Gram Panchayat should follow these important steps:

1 Conduct Gram Sabha to highlight issues in Solid Waste Management



2 Pass resolution on prioritizing SWM activities with key decisions



3 Form the Water Supply and Sanitation Committee for implementation



4 Assessing existing SWM infrastructure and resources



5 Surveying existing waste management practices at community level

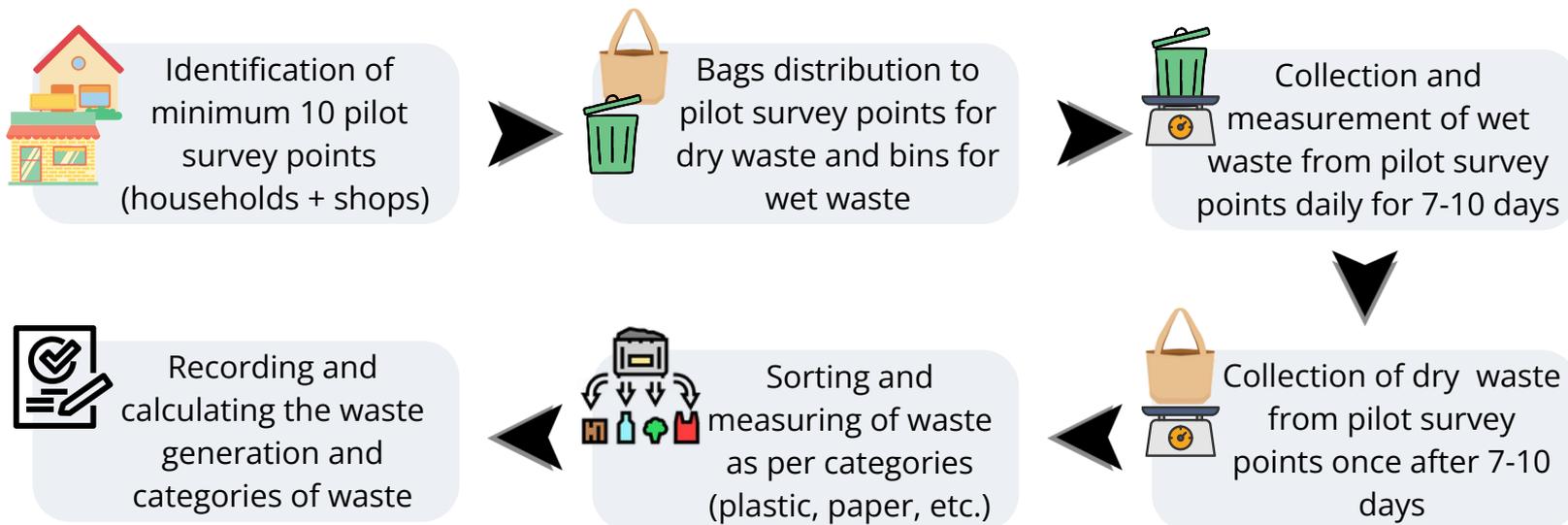


6 Financial feasibility studies (Own revenue + Funds + CSR)



2.3 WASTE CHARACTERIZATION SURVEY

A waste characterization survey assesses the type and quantity of waste generated in a village. By sampling waste from households, institutions, and markets, it helps plan effective SWM operations.



Calculation for Waste Generation of the village

Example of Village with:

- Population - 500
- Households - 120
- Days for pilot survey - 7
- Total pilot survey points - 5
- Total occupancy of pilot survey points - 25
- Collection of dry waste on 7th day of the survey
- Collection of wet waste daily for 7 days

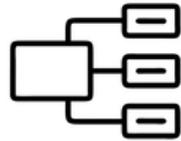
Per Capita Dry Waste Generated (0.1Kg)	=	Total dry waste from 5 pilot survey points (2.5 kg)		Per Capita Per Day Dry Waste Generated (0.015Kg)	=	Per Capita Dry Waste Generated (0.1Kg)
		Total occupancy of pilot survey points (25)				Total days of waste survey (7)
Per Capita Per Day Dry Waste Generated (0.015)	×	Total Population of the village (500)	=	Total Dry Waste Generated Daily 7.5Kg		
Per Capita Wet Waste Generated (0.4Kg)	=	Total wet waste from 5 pilot survey points (10 kg)		Per Capita Per Day Wet Waste Generated (0.06Kg)	=	Per Capita Wet Waste Generated (0.4Kg)
		Total occupancy of pilot survey points (25)				Total days of waste survey (7)
Per Capita Per Day Wet Waste Generated (0.06)	×	Total Population of the village (500)	=	Total Wet Waste Generated Daily 28.5Kg		

2.4 IDENTIFYING DRY WASTE MANAGEMENT APPROACH

Basis of identification:



Quantity of daily waste generated



Type of waste generated



Type of establishments



Availability of Funds

Initiatives that can be taken for segregation of dry waste



Distribution of reusable dry waste collection bags to shops and households



Distribution of bins to institutes and can be placed at public places



Dedicated dry waste collection cages at market areas

Types of dry waste processing facilities

For village level (small population) as per SBM G guidelines



SEGREGATION SHED

In this shed dry waste is sorted, segregated but not processed. Might have optional compost pit.

For cluster level (large population) as per SBM G guidelines



MATERIAL RECOVERY FACILITY (MRF)

In this facility dry waste is manually sorted and processed through machines for recycling.

2.5 IDENTIFYING WET WASTE MANAGEMENT APPROACH

Basis of identification:



Quantity of daily waste generated



Existing practices / infrastructure



Type of establishments



Availability of Funds

Initiatives that can be taken for wet waste processing

Types of wet waste processing facilities



Distribution of composters to institutes for managing their wet waste

For community level wet waste management as per SBM G guidelines



Promoting household composting



COMPOST PIT

These pits help in natural decomposition of organic waste.



BIOGAS PLANT

This plant converts organic waste into biogas which can be used as fuel.



VERMI COMPOST

This plant converts organic waste into fertilizer with the help of worms.



Provision of bins to households, shops for separate wet waste collection

2.6 IDENTIFYING WASTE COLLECTION APPROACH

Basis of identification:



Quantity of daily waste generated



Spread of habitation and topography



Availability of sanitation workers and collection vehicles

Waste collection vehicles provided as per SBM G guidelines

Mapping of facilities for collection route planning



Handcart

Suitable for collecting minimal waste from narrow lanes



Tricycle

Suitable for maximum waste collection in broader lanes



Mini trucks



- Wet waste processing facility
- Dry waste processing facility
- Houses in Habitation
- Road connecting habitations

- *Daily wet waste collection should be planned to avoid foul odour, and pest breeding.*
- *Weekly dry waste collection drives can be planned and further processing and recycling can be planned*

2.7 LAND ALLOCATION FOR PROCESSING FACILITY

Once the approach for processing of waste is finalized, land to build the necessary infrastructure has to be allocated based on these criterias:



Land owned by the Gram panchayat



Proximity to sources of waste generation

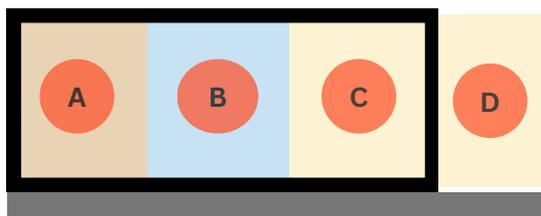


Accessible to waste collection vehicles

COMPONENTS

SIZE ESTIMATION

PROCESSING MACHINERIES



A. Segregation & weighing area:

Space for sorting and measuring of waste into various categories.

B. Storage area:

Dedicated space for storing different types of segregated and processed waste.

C. Processing area: Space for machinery to bail or shred waste.

D. Vehicle parking and maneuvering: Space for loading-unloading waste from vehicles.

EXAMPLE 1



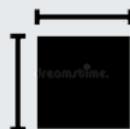
Dry waste quantity

Upto 1-3 Kg per day



Population

Upto 2,000



Dimensions of Processing Facility

20 feet x 14 feet

EXAMPLE 2



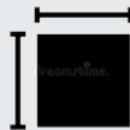
Dry waste quantity

Upto 2-5 Kg per day



Population

Upto 5,000



Dimensions of Processing Facility

28 feet x 19 feet



BAILING MACHINE

It compresses loose waste or recyclable materials into compact bales.



PLASTIC SHREDDER

It reduces the size of waste materials by breaking them into smaller, more uniform pieces.

2.8 CAPITAL EXPENDITURES

Based on the assessments and waste management approach identified, capital expenditures shall include:



**Purchase of Dustbins
for distribution to households
and for public places**



**Cleaning and repair of
existing infrastructure**



**Purchase or repair of
Waste collection vehicles**

Existing funds with Gram Panchayat / PESA funds

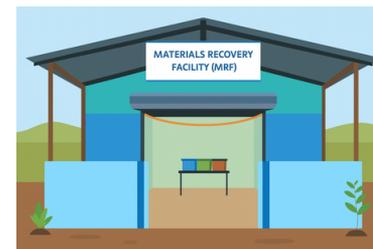


SEGREGATION SHED



NADEP COMPOST PIT

PESA funds/ SBM - Gramin funds



**MATERIAL RECOVERY FACILITY
(MRF)**

Development of new infrastructure through SBM - Gramin funds (Cluster Approach)

Villages with limited funds can set up a cluster-level Material Recovery Facility (MRF) as shared facility reduces costs and improves the sale of recyclable waste. Under SBM-G, fund is available for one MRF per block, and additional support can be acquired from CSR funds or partnerships with nearby Gram Panchayats or local enterprises.

2.9 OPERATIONAL EXPENDITURE

Tentative expenditures for solid waste operations shall include:

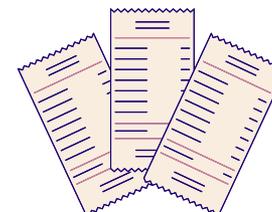
OPERATING COSTS



**SALARIES OF
SANITATION WORKERS**



FUEL COSTS OF VEHICLES



**BILL PAYEMENTS FOR
MRF**

MAINTENANCE COSTS



REPAIR WORKS OF WASTE PROCESSING MACHINERY, VEHICLES, ETC.

GENERATION OF REVENUE FOR SWM ACTIVITIES

Working capital and O&M cost can be covered by Gram Panchayat's own revenue fund by:

- Initiating a SWM tax separate or part of existing property tax (E.g. 5-10%).
- Implementing fine for waste burning, improper waste segregation, littering in public (E.g. Rs. 500).

Such amount shall be mutually discussed in Gram Sabha and Resolution to be passed for the same.

2.10 FINANCIAL CALCULATIONS

Example of Village with:

- 2,000 population and 650 households
- Total dry waste generation in village - 30kg/day and
- Total wet waste generation in village - 150kg/day

Expenditure Activities (excluding infra and equipment costs)	Monthly Amount in Rs.	Revenue Activities	Monthly Amount in Rs.
Cleaning vulnerable points and community bins/pits	500 - 1,000	Plastic Recycling @Rs.20/Kg	9,000 - 11,000
GP – 2 workers – daily waste collection	16,000 - 20,000	Paper/Cardboard Recycling @Rs.12/Kg	3,000 - 5,000
Electricity cost (Machines at Processing facility)	300 - 500	Compost/ fertilizer @Rs.10/Kg	3,000 - 5,000
Repair of existing collection vehicles	500 - 1,000	Revenue from SWM Tax @Rs.10/Household	16,000 - 20,000
Fuel cost of vehicles (if any)	1,000 - 2,000	Revenue from Fines collected	2,000 - 4,000
Other repairs and maintenance	1,000	Revenue collected from weekly bazaar	5,000 - 10,000
Total	19,000 - 25,000	Total	38,000 - 55,000

2.11 CAPACITY BUILDING

It is important to initiate a strategic effort to educate and inform community members about the SWM operations and their responsibility to carry out designated activities.

TRAINING OF WOMEN SHG MEMBERS



Assisting in surveys and awareness campaign



Importance of segregation and waste collection



Recycling and upscaling of waste

TRAINING OF SANITATION WORKER



Collection of waste and operating MRF



Importance of PPE kit and its usage at SWM Facility / MRF

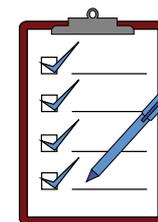


Sorting of waste and usage of machineries

TRAINING OF WATER SUPPLY AND SANITATION COMMITTEE



Managing finances and monitoring of operations



Managing CAPEX and OPEX



Methods of conducting awareness campaigns in a village

2.12 SOLID WASTE MANAGEMENT ACTIVITY TIMELINE

Timeline Stakeholders	First Quarter of the Year	Second Quarter of the Year	Third Quarter of the Year	Fourth Quarter of the Year
Gram Panchayat	Awareness activities Institutional setup Tie up with SHGs	Financial studies, land allocation and approach planning	Infrastructure development and awareness	Monitoring of SWM operations & tie up with Recyclers
Self Help Groups	Assessing infrastructure & existing SWM practices	Waste characterization survey	Capacity building	Waste sorting and processing at processing facility
Sanitation Workers				Daily collection of waste from establishments
Commercials/ Institutes	Cleanliness drives			Practicing waste segregation and composting
Community				
Recyclers				Collection of waste from processing facility

3

STEP BY STEP OPERATIONS FOR SOLID WASTE MANAGEMENT

Understanding a clear operational framework helps Gram Panchayats systematically manage solid waste through well-defined steps such as segregation at source, collection, transportation, processing, and safe disposal.

3.1 OPERATIONS MODULE



1 Daily waste segregation at source



2 Waste collection from households, markets, institutions and community bins



4 Sorting of dry waste into various categories (plastic, paper, metal, etc.)



3 Transportation of dry waste to processing facility (Weekly basis)



Transportation of wet waste to compost pits (Daily basis)



6 Dry waste of various categories to be sent to authentic recyclers



3.2 OPERATIONAL STEPS

1



Waste segregation at source

- Dry waste segregation in reusable bags
- Wet waste segregation in bins
- Sanitary waste segregated into separate bin
- Separate storage of hazardous waste

2



Waste collection

- Use of PPE kit for collection of waste
- Ensure collection vehicles in proper condition
- Daily collection of Wet waste from bins
- Weekly collection of Dry waste from reusable bags
- Collection from all households and other establishments
- Record keeping of trips, route and duration of waste collection

3



Dry waste processing facility

- Use of PPE kit for handling of waste
- Proper sorting of waste as per categories
- Safe use of machineries
- Cleanliness in the premises
- Maintaining logbook of quantity of waste received and processed

4



Wet waste compost facility

- Use of PPE kit for handling of waste
- Proper turning of organic waste and maintaining the desired ratio
- Cleanliness in the premises
- Maintaining logbook of quantity of waste received and compost generated

5

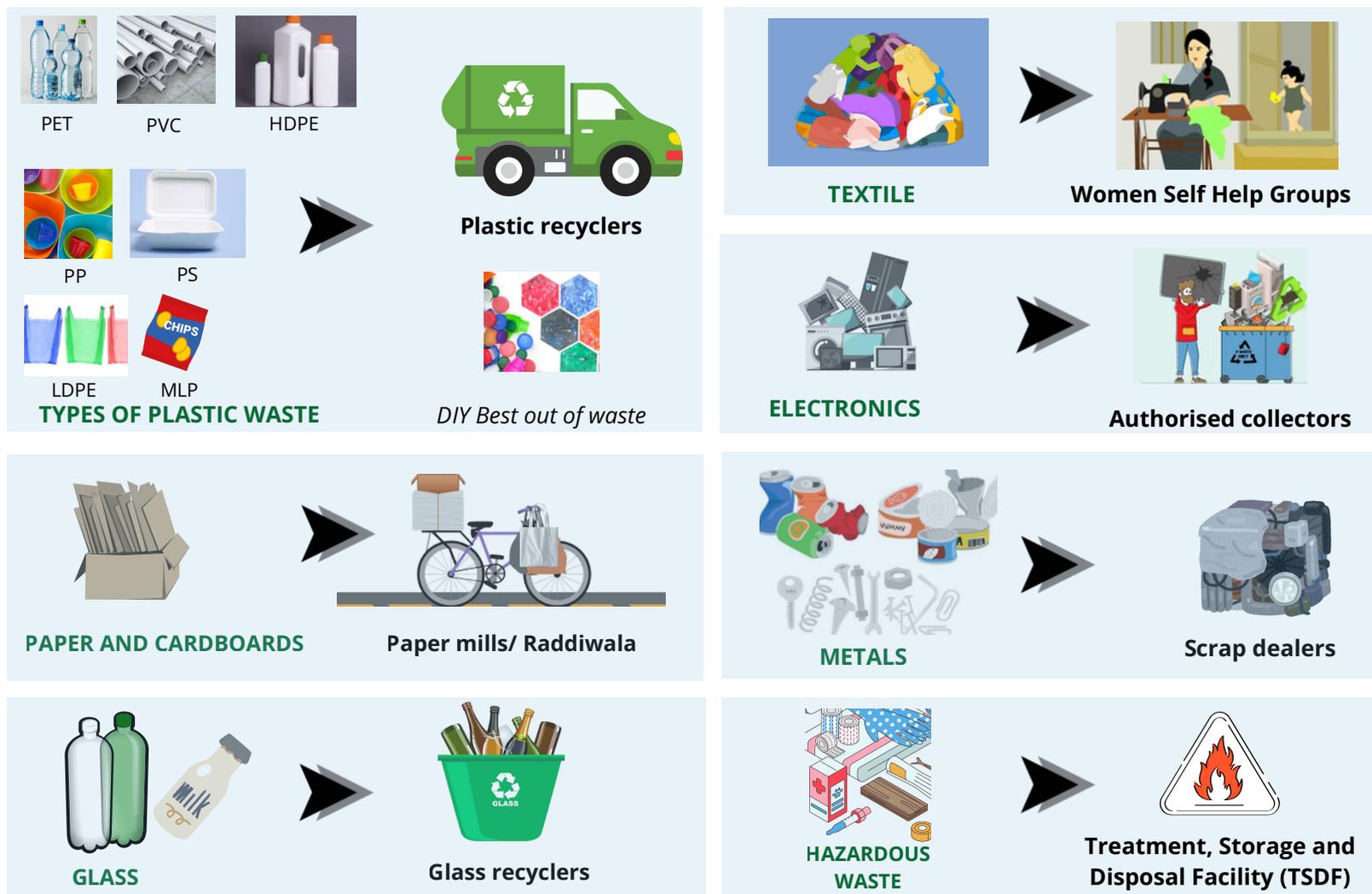


Forward linkages

- Contract based tie up with recyclers, can be separate for various categories of waste
- Maintain logbook of waste given for recycling and sold as compost
- Record keeping or revenue generated

3.3 IDENTIFICATION OF FORWARD LINKAGES

A forward linkage partner is a recycler or aggregator who purchases segregated dry waste from collection or processing facilities. They ensure regular clearance of waste from MRFs and support smooth operations. These partnerships enable recycling, generate revenue, and prevent dumping or burning of waste.



3.4 REVENUE GENERATION THROUGH SWM PRACTICES



SHG LED OPERATION AND MANAGEMENT OF SWM FACILITY FOR VALUE ADDITION ACTIVITIES AND LOCAL LIVELIHOOD CREATION



SALE TO RECYCLERS

Plastic waste tie-ups with cement plants for co-processing or recycling vendors. Partnership with authorized recyclers for collection drives against commission-based returns.



SALE OF COMPOST

Sale of compost generated from wet waste to local farmers and branding under the Gram Panchayat and HARIT.



FINES AND PENALTIES

Spot fines for use of banned single-use plastics and penalties for littering or non-segregation at source and illegal dumping in public places.



USER CHARGES

Monthly door-to-door collection fees from households. Higher user charges for bulk waste generators (shops, hotels, institutions)

4

CASE STUDY OF GANJAD VILLAGE, DAHANU

This chapter presents a documented experience from the field that illustrate effective solid waste management practice. It highlights practical approaches adopted by local body and community to improve waste segregation, collection, processing, and recycling

4.1 SOLID WASTE MANAGEMENT AT GANJAD, DAHANU

Village Gram Panchayat Background

Number of villages

6

Ganjad, Devbagh, Ganeshbagh, Somnath, Manipur, Navnath

Population

10,531

Garbage Vulnerable Points

90 commercial shops
50 weekly market shops



Solid Waste Management Issues:

- Open dumping
- Burning of waste in household premises
- Use of plastic waste for stove burning
- Non functional infrastructure
- River pollution due to dumpsite

SWM at Ganjad: A Success Story

A Material Recovery Facility (MRF) was constructed on Gram Panchayat-owned land at a central location in the village, equipped with a sorting table, weighing scale, and baling machine.



4.1 SOLID WASTE MANAGEMENT AT GANJAD, DAHANU

Key Actions Points



Gram Sabha Resolution

Solid Waste Management issues were raised in Gram Sabha and resolution was passed to initiate "Clean Village" campaign.



Awareness Activities & IEC Campaign

Women SHGs initiated household survey and data collection and IEC campaign was conducted by CWAS team to further strengthen the awareness campaign

IMPLEMENTATION SUPPORT BY CWAS*

- Capacity building of women SHGs and sanitation workers
- Household survey training of women SHGs
- Construction of MRF and provision of bailing machine
- Provision of dry waste collection bags
- Provision of composters to ZP school and few households
- Exposure visit to Atul foundation, Valsad
- Training to households and students on operating wet waste composters.

EFFECTIVE COMMUNITY ENGAGEMENT

- GP members supported CWAS in successful establishment of MRF
- Village level awareness campaign by women SHGs
- Successful data collection through household survey by women SHGs
- Reduce, Reuse & Recycle concept adapted by school students
- Segregation and sorting of waste initiated by sanitation worker
- Segregation at source adopted by commercial shop owners

*CWAS is Center for Water and Sanitation (CWAS), CRDF, CEPT University www.cwas.org.in

4.1 SOLID WASTE MANAGEMENT AT GANJAD, DAHANU

Key Actions Points



Availability of GP owned land for construction of MRF



Waste Characterization survey conducted to understand Waste composition

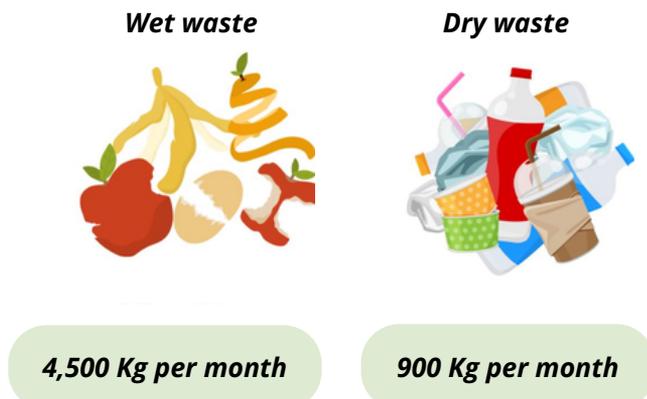


Distribution of reusable dry waste collection bags to shop owners and households

DRY WASTE COLLECTION FREQUENCY



QUANTITY OF WASTE GENERATED



REVENUE GENERATION THROUGH MRF

₹ Monthly revenue of Rs. 3000 to Rs. 4000 is expected depending on collection of 15 - 18 kg of dry waste and cost of Rs 8 per Kg.

Sanitation worker : 1
 Salary of worker : Rs 8000
 Electricity bill : Rs 500 to Rs 800
 Other costs : Upto Rs 1000

“We have now understood the entire solid waste management value chain, now it's time to take the first step towards a cleaner village.”



A CLEANER VILLAGE BEGINS WITH US!



Together, we can build a cleaner, healthier and sustainable village



