

Sustainable waste management in Gram Panchayats – success stories and challenges



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SAAHAS

20 year old NGO with pan-India presence



Resource Recovery through
Source Segregation
Decentralized Processing
Appropriate destinations for
all waste streams

Program Features



Minimal waste
to landfill thru
reduction &
resource recovery



Awareness and
behavioural
change



Social and financial
inclusion of Waste
Collectors



Data driven
M&E
frameworks

RURAL INTERVENTIONS OF SAAHAS



Rural Locations

Andra Pradesh: Chittoor Dist

Karnataka:

Ballari, Belagavi, Bengaluru Urban, Bengaluru Rural, Dakshina Kannada Ramanagaram, Vijayanagara Udupi

Telangana:

Ranga Reddy, Vikarabad

Gujarat: Valsad

Maharashtra: Pune

Madhya Pradesh: Panna

Rajasthan: Alwar

Number of GPs	Number of villages	District	State
3	4	Ballari	Karnataka
12	101	Bengaluru Rural	
4	23	Bengaluru Urban	
6	10	Belagavi	
49	220	Ballari, Ramanagara, Dakshina Kannada, Udupi, Vijayanagar	
1	3	Alwar	Rajasthan
1	1	Valsad	Gujarat
2	2	Pune	Maharashtra
3	7	RangaReddy	Telangana
3	7	Vikarabad	
1	5	Chittoor	Andhra Pradesh
85	383		

Focus areas in rural SWM



IEC/BCC

Should cover:
Source segregation
Waste reduction
Understand need for user fee
Need for penalty and fines



Build Capacity

Awareness about the implementation steps;
Knowledge about right infrastructure for collection and processing;
Awareness about Govt funding schemes;



Infrastructure

Many schemes support setting up of infrastructure
Suitable infrastructure, tailored for the specific location



Operations

Adequate staff for collection, processing, monitoring
Costs of disposal of non-recyclable items and domestic hazardous to be factored in



Sustenance

Monitoring & evaluation
For Sustained source segregation and Sustained operations

Success stories

Different success levels achieved in different state

Success factors for Karnataka:

- Push from the state or district
- State has released policy, strategy and model bye-laws for GPs; many GPs have adopted the bye-laws for charging user fee
- Dovetailing of different schemes (like SBM, MGNREGA, NRLM etc) to meet the capex and opex needs
- Presence of many successful models across the state

Atul, Valsad, Gujarat State:

- Supported by Atul Foundation
- Segregation % is greater than 80%
- Well running composting unit and dry waste centre
- Sanitary landfill made for rejects



Innovation piloted in Rural Karnataka

Setting up of 4 pilot Material Recovery Facilities

- Being set up in 4 districts
- 10TPD capacity
- Waste from the GPs in the Taluk will come to the MRF
- Acts as tertiary sorting centre and aggregation unit



Operational Material Recovery Facility in Udupi and Ballari



Waste at Udupi MRF



Material Recovery Facility under final phase of construction in Ramanagara and Dakshina Kannada

Need for MRFs

DWCC	MRF
Mostly manual sorting	Semi-Mechanised sorting
Decentralized at ward/GP level	Centralized at Taluk level
Unskilled or semi-skilled manpower	Skilled manpower
Low sorting efficiency per worker	Improved sorting efficiency per worker
Capacity will be usually less than 1 MT	Minimum capacity will be 5MT onwards
Items are dispatched to local scrap dealers/aggregators	Items are dispatched to authorised end destinations
Basic infrastructure requirements	MRF requires specific layouts which will allow placement of the machineries and facilitate material movement.
No worker's compliances	Workers compliances; hygienic & safe work environment
No traceability of material	Traceability of material
Chances of pilferages	Reduced pilferages
No standardization	Standard SOP, Implementation of 5S model and EHS

Challenges and recommendations

CHALLENGES	RECOMMENDATIONS
Most people including many Govt functionaries believe that income from sale of waste is sufficient to take care of operational costs	Data from successful pilots should be shared widely to show the true operational costs and income from waste. This should be included in IEC and capacity building modules
Pick up of non-recyclables	EPR support to send non-recyclables to cement plants or other approved end destinations. 5-10% of EPR targets should be from rural areas. Aggregation centres and MRFs required to make this viable
Sanitary waste disposal	EPR on sanitary pads and diapers for tying up with authorized biomedical waste facilities for proper disposal Promotion of sustainable menstrual products and reusable diapers Small incinerators being provided to GPs are not safe and not recommended by CPCB
Funds for setting up of infrastructure like MRFs	16 lakhs for aggregation units per Taluk in SBM-G not sufficient. MGNREGA funds from multiple GPs can be pooled up. Other Govt schemes?
Funds to meet operational expenses	All states should allow using 15 th Finance Commission funds to meet initial gap till user fee collection stabilizes
Tools and staff for monitoring	Taluk level material traceability software for monitoring of operations Dedicated manpower to monitor the SWM and LWM systems

Thank you

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