

# **Solid Waste Management: An Overview**

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# **Mounting Waste is a Serious Challenge to Gram Panchayats**



# Dump – Dispose – Burn – Bury?



# Hide it away from eye-sight

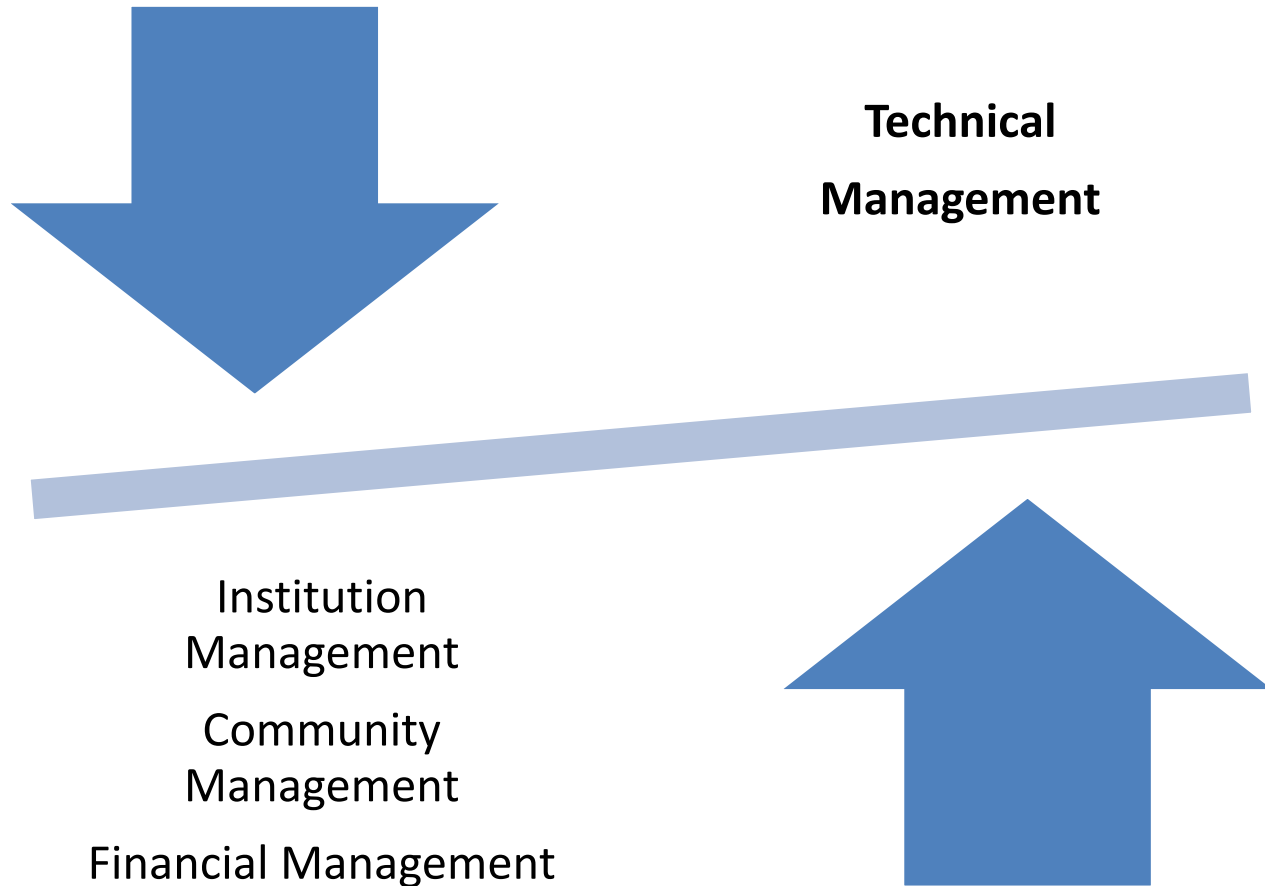


# 1. Infrastructure & Technology

## (Keep it to the barest minimum)

- We tend to invest in technologies such as duster, shredder, bailing machine and so on.
- Technologies per se does not solve the problem of ‘waste’.
- It requires systemic thinking & complete (end to end) planning.
- *Unfortunately, we are yet to invent a technology that will eat up all mixed up garbage and give us wealth.*

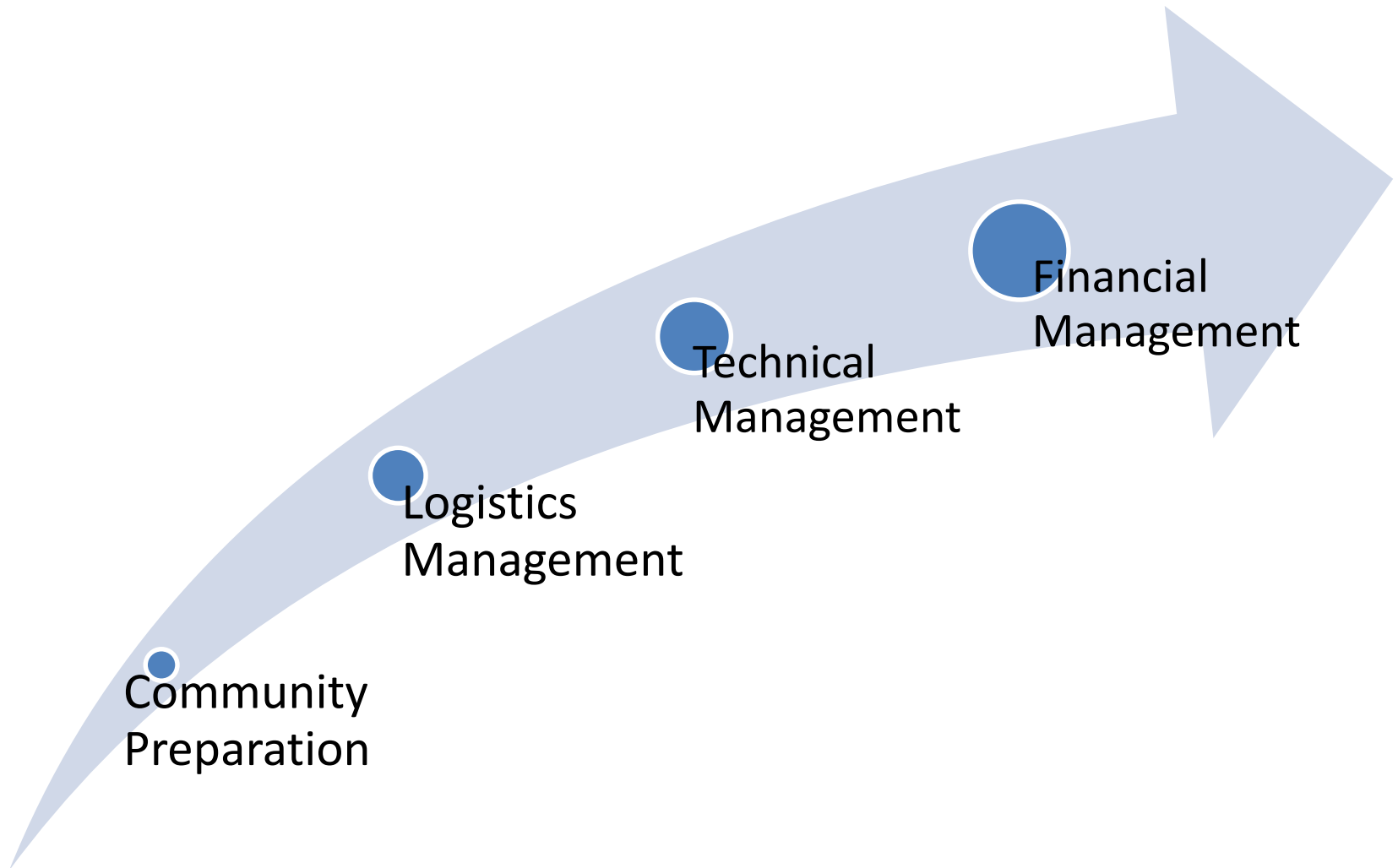
# The error that requires rectifying is 'The tilt'



## 2. Put in place a SWM System

- The SBM-G Phase-II guideline says: *‘Put in place a waste management system’*.
- **It’s about ‘a system’ being put in place at GP level.**
- It’s not merely about dustbin distribution
- It’s not about purchasing tricycle or tractor
- It’s not about constructing segregation shed.
- It demands end-to-end planning.

# Putting in place entails



Community  
Preparation

Logistics  
Management

Technical  
Management

Financial  
Management



# 3.Selection of village

- Let's first target Gram Panchayats that are close to towns and municipalities.
- Let's start in villages, **where people feel waste is a problem.**
- Then we can move to interior villages.
- The type of waste generated (a) in road-side village and (b) in interior villages.

## **4. Keep the spirit of the sanitation workers alive**

- When a few households do not segregate waste, the sanitation workers can make their job easy by mixing up all waste, and complain it on the households.
- Is he progressively expanding the circle of households that segregate, or he is gradually bringing things back to square one?
- We need to keep his spirit alive through constant discussion, monitoring and support.

# 5. Contact details of waste dealers

- **Wet waste** can be easily composted – ordinary composting or vermi-composting, sale of compost etc.
- What do we do about the **dry wastes**?
- Where are the waste dealers & recyclers that they told me about, during training programmes?
- *Do we have a list of waste dealers, private people or agencies involved in procuring different types of plastics, bottles, card boards etc.*
- **Do I have the contact details of waste dealers in my block?**

# 6.Operation & Maintenance

- Sustainable Operation & Maintenance of SWM Unit depends mainly on:
  - Continuous engagement with the community
  - & Financial sustainability (dry run budget)
- Successful GPs report:
- Cross-subsidy models (off-set loss / tapper off)
- Own Source Revenue (house tax, marketplace tax, Professional tax)
- User charges + (a portion of 15<sup>th</sup> FC funds)

# 7. Management Models

- Gram Panchayat managing waste, does not have to always mean Gram Panchayat directly involving in managing waste.
- Do they have the necessary training and capacity to handle / manage wastes of various types?
  - Contracting it out to NGOs specializing in waste management
  - Training SHGs (SRLM) and Contracting it out to them
  - Contracting it out to private waste management agencies
  - If Block PWM Units come up EPR agencies may be interested in collecting from Block PWM Units.

# 8. Capacity Building of GPs

- **Capacity Building is not merely about training**
- *Does your Panchayat have at least a 2-page note on how waste will be managed?*
- *What time waste collection will take place?*
- *What is the waste collection route?*
- *What are the responsibilities of households / sanitation workers / Gram Panchayats / how about payment to waste management services?*
- *How do we plan to Operate – Maintain?*

# 9. It's more a socio-psychological problem

- Waste is not a problem that technologies can address.
- It's more a socio-psychological problem.
- *'Everybody else is throwing garbage on the street corner, what can I do alone?'*
- *'No one is segregating waste here, what difference I can make alone?'*
- *'If I alone refrain from chucking my kitchen waste in the street, will entire India become clean?'*
- *'I am better than many others here'*

# 10. Minimum Eligibility to become a trainer in solid waste management

- We all went round advocating for toilet use, and for people to stop open defecation.
- The minimum eligibility I required to do this was ‘I don’t go for open defecation’.
- I must have a toilet in my house, and I never go for open defecation.
- Other technical and health related information are additional that follow. *The minimum eligibility required was ‘I don’t do it in open’*

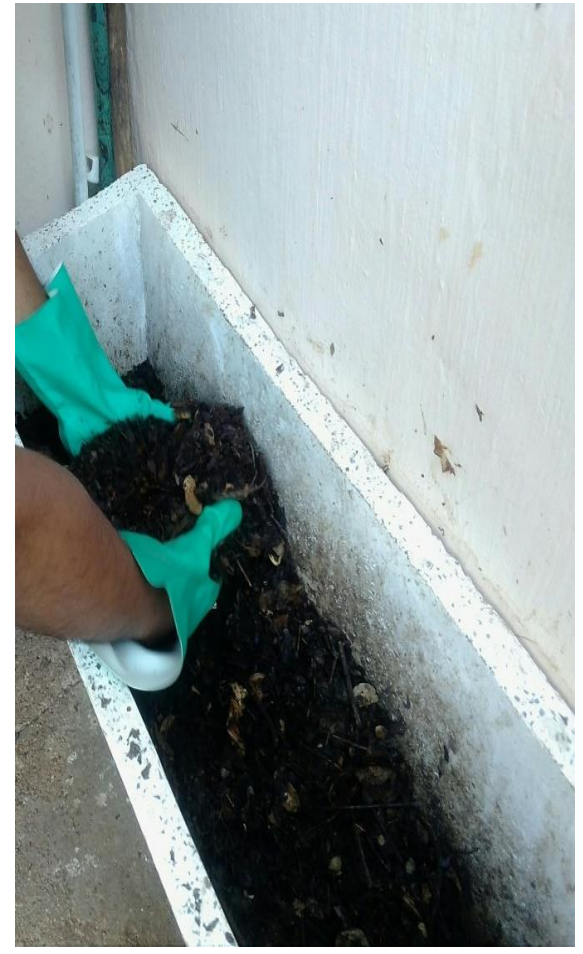


## 10. In the same vein...

- What happens to the waste we all generate at our homes?
- **Do I segregate it before I hand it over?**
- **Do I have any arrangement for home composting?**
- Do I follow any green protocol when I conduct function in my house / a training programme?
- How do I earn my **ELIGIBILITY** to talk about waste management in front of an audience?

# What happens to the waste at my home?

- Home Composting of wet waste



# Compost from my home



# From my home

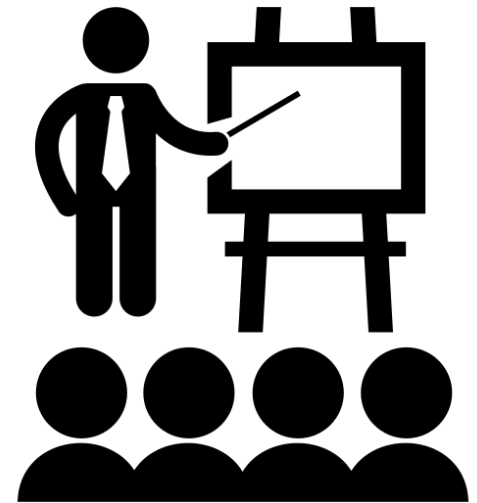
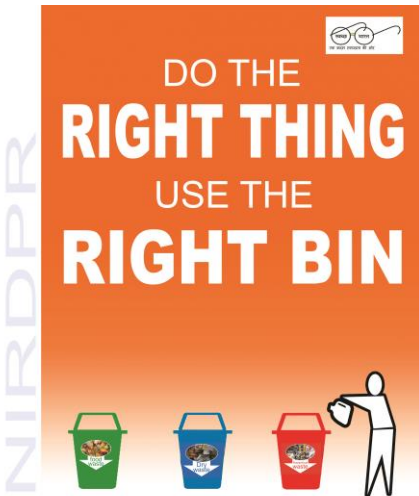


# 11. Segregation of Waste at Source

1. Segregation<sup>6</sup> of waste streams at source to enable safe handling as well as conserving resources



# 11. Most seminars and workshops conclude: 'Segregation is the key'



# 12. Zero Waste Panchayats

- Wet waste stream (about 40%)
- Dry waste stream (about 45%)
- Hazardous waste (about 5%)
- What ends up in the landfill shall not exceed 10% of the residual / inert waste.







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