

# Waste Management at Large Apartment complexes: Challenges and Opportunities

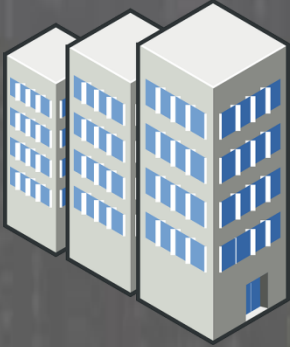
## Case Study: Brigade Gateway, Malleswaram West

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# In Numbers

1255 apartments



>40T total waste generated per month



7 categories at source  
+4 categories at secondary segregation



Compliance:  
~95% (fluctuates with  
move-ins/outs)

Landfill category:  
<1%



# Approach

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- ❑ Research before implementation
- ❑ Analysis for adoption for our community
- ❑ Pilot project
- ❑ Infrastructure set-up
- ❑ Garbage chutes NOT commissioned
- ❑ Resident roll-out: Educate/encourage
- ❑ Network with builder and community
- ❑ Continuous monitoring & improvement



# Wet Waste



- ❑ Daily Collection
- ❑ No plastic liner allowed (direct/paper liner)
- ❑ 100% segregation at source
- ❑ Shredder + OWC used
- ❑ ~20T generated per month
- ❑ 100% ramp-up in progress
- ❑ *Some plastic mix-up at source*
- ❑ *Smell issues with current infra.*
- ❑ *Average quality of compost*

# Dry Waste

- ❑ 2x per week collection
- ❑ Source: Paper, Plastic & Metal
- ❑ Secondary: glass (metal), high/low grade plastic, cardboard & newspaper
- ❑ Working with member-based organisation of waste-pickers
- ❑ ~20T generated per month
- ❑ *Some wet-waste mix-up happening at source & cleanliness (dryness) issues*



We work with





# Bio-Medical Waste



- ❑ Daily Collection
- ❑ 100% segregation at source
- ❑ Waste packaged in paper bags
- ❑ Paper bags sourced from NGO for disabled children
- ❑ *Most expensive category*
- ❑ *No segregation issues reported but some privacy concerns from residents*

# E-Waste



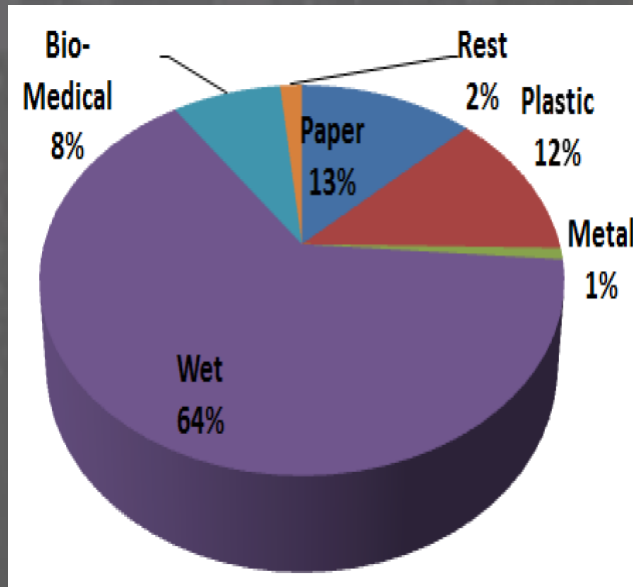
- ❑ Previously one common bin for entire complex
- ❑ *Common bin mixed up with general waste due to lack of monitoring*
- ❑ Have rolled out block-wise bins with lock/key now
- ❑ *Vendor constraints are challenging to meet*
- ❑ *Recycling chain difficult to establish*
- ❑ Many new vendors coming up - Closed contract with one new vendor now

# Rejects

- ❑ Daily Collection
- ❑ Disposed through BBMP
- ❑ Target is <1% of overall waste generated
- ❑ *Difficult to classify every material into one of the identified categories for recycling*
- ❑ *Quadruple burden: BBMP vendor charges + SWM cess with property tax + KSPCB CFO charges + cost of running WM programme*



# Summary Statistics



	Brigade Gateway, %	Bangalore (Domestic)*	Bangalore Dumpsites**
Organic	65	65	70
Paper	14	8	11
Plastic	9	6	9
Glass	4	6	1
Metal	1	3	0
Miscellaneous	2	12	9
Biomedical	6	?	?

\* Bins (Rajabaphiah et al 1988)

\*\* Found at Dumpsites (TIDE, 2000)

# Follow BGRWA Waste Segregation Policies

## Unsegregated Waste cannot be picked up



Wet Waste (Daily)

Dry Waste - Paper  
(x2 weekly) - Plastic  
- Metal

Bio-medical Waste (Daily)

E-Waste - in special bins

Rejects (Daily)

# Thank you!

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# BGRWA Waste Mgmt. Practices Featured Widely

