

Apartment Solid Waste Management Manual



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Introduction

In 2012, when the Mavallipura landfill was closed, people in Bangalore suddenly realised that there was no place for their garbage to go. Garbage started turning up on our streets and in our lakes as we nervously pointed fingers at everyone else. The inescapable fact is that Bangalore city has grown way beyond its capacity and continues to do so. As responsible citizens of this metro, we have to take charge of our waste and segregate at source to ensure minimal dumping of mixed waste.

Apartments being bulk generators of garbage, have a greater responsibility to manage their garbage efficiently. Managing segregation at source in apartments has always been a challenge due to multiple factors such as:

- Resistance from residents who are used to the convenience of anonymous plastic bags.
- Presence of a floating population in terms of frequent move-in move-outs.
- Routine changes in housekeeping staff

It is in this context that we present you with this manual for apartments which handholds communities through the process of introducing and sustaining 100% source segregation.

Backed up with years of learning and experimentation with various methods, **2bin1bag** guide will ensure a hassle-free experience with practical advice such as processes, roles and audits to be put in place etc. Welcome to sustainable living with **2bin1bag**.



10 Easy Steps for initiating SWM

#	Guidelines	Documents
1	Start a 'Green' team and visit a model apartment.	Why 2 bin 1 bag?
2	Send a note to residents regarding SWM	Standard Mail to Residents - pg 14 BBMP Notices
3	Procure all SWM consumables. <ul style="list-style-type: none"> - Order required items for every household - Order required items for door-door collection - Order housekeeping masks, gloves 	Rqd item per household - pg 12 Rqd items for d2d collection - pg 13
4	Hire a BBMP empanelled vendor	List of Vendors
5	Have an awareness session for residents and train housekeeping staff	Responsibilities of Residents - pg 8 Responsibilities of HK staff - pg 9
6	Distribute kits, door to door to residents.	FAQ
7	Start the process and follow up for a week along with the HK staff. Perform regular waste audits by Manager/Supervisor	Record of Waste Quantities - pg 15 Waste Audit Form - pg 15
8	Keep extra kits for new move-in residents in Manager's office.	Guidelines for new move-ins - pg 16
9	Have a quarterly e-waste drives.	
10	Enforce Zero Waste Party and Clubhouse Guidelines	Clubhouse Party Guidelines - pg 17 Zero Waste Events



Roles and Responsibilities



Responsibilities of Managing Committee

- Communicate Solid Waste Management rules and guidelines to residents.
- Form a SWM Volunteer team and give complete support to implement process.
- Provide Infrastructure to support segregation at source.
- Provide Infrastructure to support aggregation of segregated Waste
- Provide required training to HK Staff
- Hire an empaneled vendor to dispose waste responsibly
- Keep a record of quantum of waste generated.
- Bi-weekly check Waste Audit records and send penalty notices to defaulters.
- Incentivise HK staff for making this task successful
- Provide New move in a segregation kit along with security sticker and other formalities.
- Implement “Zero Waste parties/events”



Responsibilities of SWM Green Team

- Every block should have at least two Volunteers.
- Help with passing the pamphlets and providing guidance to residents.
- Periodically monitors the collection process
- Keep a track of defaulters with the help of HK staff.
- Educate defaulters about why segregation is important and also solve any issues they may have.
- Once a month, Keep a training session to HK staff.
- Meet with MC once a month to evaluate the process.

Responsibilities of Estate Manager

- Provide regular training to HK staff
- Ensure **door to door pickup for wet, dry and reject waste everyday** however big the complex may be. This is the only way to make sure garbage is not mixed up.
- Daily monitor the collection process and take 100% responsibility to the segregation process.
- Keep a record of defaulters & Waste Audit form
- Make sure Garbage Service provider takes in segregated manner.
- Provide New move-ins segregation kit and pamphlet
- Keep record of daily quantum of waste generation



Responsibilities of Residents

- Follow all the Guidelines set by MC
- Cooperate with Volunteers and Housekeeping and appreciate their efforts.
- Keep bins outside your door step before the specified time for collection.
- Mixed waste is not allowed. No Waste should be given in plastic bags or bins other than the 2bin1bag kit provided (this is to avoid confusion for housekeeping).
- **Green Bin** - 100% segregated compostable kitchen and minimal garden waste. Do not line with plastic bags.
- **Red Bin**– Sanitary/reject waste needs to be wrapped in newspaper. Do not line with plastic bags.
- **Recyclables Bag** - Clean and dry recyclable waste. **No food residue.** Do not line with plastic bags.
- **Broken glass/Sharps** - Need to be wrapped in paper to prevent it from poking through and placed separately.
- **E-Waste** - have a community wide drive quarterly. Have residents hold onto their E-Waste. **This includes bulbs and tube lights that need to be disposed only during the drive in its original packaging to prevent breakage(mercury hazard).**
- Avoid using any Disposables in parties/events in order to reduce reject waste to landfills.



Responsibilities of Housekeeping (HK) Staff & Training

- **Require at least 2 staff per block or every 50 houses.**
- A formal training for HK staff and supervisor is essential as the success of the SWM initiative depends on them. During the training, mentioning **why waste needs to be segregated is as important as how.**
- Provide masks and gloves to the staff for removing waste from the bins. The bins have to be emptied completely and preferably cleaned with paper.
- Ensure **door to door pickup for organic(wet), recyclable (dry) and reject waste everyday** however big the complex may be. This is the only way to make sure garbage is not mixed up.
- Explain that the **Green Bin** should contain only 100% segregated compostable kitchen and minimal garden waste.
- Explain that the **Red Bin** should contain only sanitary/reject waste (they understand bathroom waste) and that it needs to be wrapped in newspaper. This should be emptied in 75 ltr drums or large trash bags separately .
- Explain that the **Recyclables Bag** should contain only clean and dry recyclable waste (they understand the concept of “kabadiwala”). This should be collected in large reusable sacks or 75 ltr drums.
- Broken glass/Sharps - need to be collected separately and stored in a separate bin for weekly/monthly disposal.
- In case of mixed waste or bucket lined with plastic cover pick up the waste and note down their door number. This record should be shared with volunteers.
- Preferably, the supervisor needs to go along with HK, at least one block per day, during pickup in order to keep track of violations. This record of violations can be provided to the volunteers or MC to take action.
- **Every day, the supervisor or manager is 100% responsible to ensure the process is followed properly.**



Incentives to Housekeeping Staff

Some apartments seem to be giving a good portion of valuable recyclables to their HK – but there are some significant problems to this model.

- The garbage vendor will only succeed if we give all the recyclables to them since they are working with local rag pickers in the backend – giving them only scraps does not justify.
- It also becomes a security concern – since the security guards will not be able to have any control over the items taken by the HK staff.
- HK staff will be wasting a lot of their time trying to pick out valuables.

Here are some suggestions to give them incentives and keep them motivated:

- Money from selling newspapers/magazines (Collect them once a month).
- Money from penalties collected from defaulters.
- Money from renting party plates for using in the club house.
- Money collected from garbage vendor towards dry waste.
- Give a fixed amount every month from SWM fund as incentive.




Annexure



Required items per household - Segregation kit





Vendors for 2bin1bag kit

- <http://www.2bin1bag.in> - Support Groups - Eco Retailers

Item	Purpose	Image
1 Green Bin with lid (7.5ltr)	Compostable Kitchen and Garden Waste	
1 Red Bin with lid (7.5ltr)	Sanitary/Reject Waste	
1 White/Blue Reusable bag	Recyclable Waste	
1 Pamphlet	www.2bin1bag.in - Resources - Pamphlets - 1 Apartment-Layouts-english_swm_*.pptx	



Required items for Door-Door Collection of Segregated Waste

Item	Purpose	Suggested Vendor	Image
<p>75 ltr Drum for every 50 families</p> <p>75 ltr Drum for every 50 families</p>	<p>Compostable Kitchen and Garden Waste</p> <p>Sanitary/Reject Waste</p>	<p>http://www.2bin1bag.in - Support Groups - Eco Retailers</p> <p>(Drums can be painted green and red for differentiating the type of waste).</p> 	
<p>Big Reusable Sacks(for smaller elevators) OR 75 ltr Drum for every 50 families</p>	<p>Recyclable Waste</p>	<p>http://www.2bin1bag.in - Support Groups - Eco Retailers</p>	
<p>Trolley</p>	<p>For transporting the drums. Can be customized to fit in your elevator.</p>	<p>http://www.2bin1bag.in - Support Groups - Eco Retailers</p>	



Standard Mail to Residents

Hi All,

As you are all aware, the mammoth garbage crisis in Bangalore and toxic Mandur landfill has compelled the high court to take into careful consideration both short-term and long-term objectives to resolve the prevailing crisis of waste management in Bangalore. The Karnataka High Court issued a highly progressive judgement where it has directed that all municipal waste in Bangalore be segregated at source (at the household level) and the segregated waste be transported in that manner to composting and recycling units and no mixing whatsoever will take place in trucks.

In the current situation mixed waste is not being picked up from the apartments, and if at all it gets picked it is burnt somewhere in the near vicinity. We all can understand that garbage, if burned infuse the air with toxic fumes and is not at all advisable. We plan to start segregation at source in our apartment and seek the support from all residents in successful implementation of the same.

To implement successful segregation at source, volunteers across Bangalore have come up with the **2 bin-1 bag** model. This method ensures 100% segregation of waste at source and has already been implemented in over 50,000 households across Bangalore.

In this method every household will be provided with 2 bins of green and red colour each, a plastic bag, and a segregation pamphlet. The pamphlet will clearly describe the segregation of all categories of waste. **Green bin** will be used to dispose of organic or kitchen waste, **Red bin** will be used to dispose of reject waste, and **Reusable bag** will be used to dispose of the recyclable waste.

Let us all join hands and do our bit for a Clean Bengaluru.

Thanks and Regards,
MC team



Record Of Waste Quantities

Date	Kitchen Waste	Dry waste	Reject Waste	Ewaste	Garden Waste	Construction Waste

Note: 100% segregation implies ~60% Organic Waste, ~30% Recyclable waste and less than 10% Reject Waste.

Waste Audit Form

Apartment Name:

Block#:

Date	Flat#	Photo of Garbage	Type of Violation a. Garbage in plastic bags b. Mixed Waste (Mention exact problem) c. No segregation kit	Other Comment	Penalty Amount

Note : Based on the quantum of waste and available space, choose an Organic Waste Management Solution that suits your community needs. Managing in-situ is highly recommended.



SWM Guidelines for New-Move-ins

1. You are provided with two bins, Green and Red colour (with your flat number), a big recycle bag, and a segregation pamphlet.
2. Keep the Garbage in these colour coded bins only at door step at ----- hours.
3. Please refer to the **segregation pamphlet** carefully for understanding segregation at source in our community. Our apartment has been following this 100% segregation process and been a role model to rest of the ward.
4. Green colour bin shall have ONLY **Kitchen waste** (& little garden waste). Kitchen waste will be collected daily.
5. Red colour bin shall have **Reject waste** e.g. sanitary waste, floor sweep dust. This waste will be collected daily.
6. Big reusable bag shall contain clean **dry waste**. This waste will be collected daily.
7. Both Green and Red bins should not be lined with a plastic cover
8. **E-waste** must be collected separately at home and dropped at the E-waste bin kept in the Club house/basement by the residents themselves or Give it to HK Staff separately.
9. Broken glass, tea cups, and sharp objects like razor blades should be wrapped in newspaper and kept besides red colour bin.
10. Any unsegregated waste will not be picked and will attract a penalty of Rs--- per day per instance.

**** Please inform the Estate office in case you have any queries for the same.



Clubhouse Party Guidelines For the Residents

Dear Resident,

Thank you for choosing Party Hall for your party needs.

Please note the charges for Party Hall below:

There is a charge of Rs XX/- (Refundable Deposit Rs XX/-) for the party hall.

Prior to your event talk to the clubhouse manager regarding your party specifics. Also, talk to housekeeping regarding proper placement of bins.

You are required to segregate garbage as per BBMP guidelines. If garbage is not segregated it will attract a fine of Rs XX/-

Styrofoam plates, cups and boxes are banned @ all events.

In case there are disposables (paper/plastic) used at your event, as it is soiled it will go to reject (red) bin. There is a separate charge of Rs XX/- for disposal per red bin.

Upon completion of your party, if the clubhouse manager determines that the hall is in good order your deposit will be returned.

Questions? Please send an email to Sustainability group <email> for clarifications.

I have read and understood the Party Hall's Do's and Don'ts guidelines. I will adhere to it. I will avoid using single use, non biodegradable disposables (paper/plastic). I understand that styrofoam is banned at party hall. Using unnecessary disposables leads to a lot of reject waste which may be land filled. I want to do my part for a Swachh Bharat!

Sign here

