

**HOME COMPOSTING**

How to tackle household waste?

- Composting is one of the simplest ways of contributing positively to waste management reducing the Green waste from homes.
- Decayed organic matter that can be used as manure in farms and gardens.
- Residents can build their own Composting Plant
- Chandigarh generates more than 50% biodegradable Waste as per data .(Source : Indian Express **Tricity generates around 680 tonnes of solid waste per day**).
- Home composting is carried out in a small perforated container – 100 Ltr capacity Bin.
- It helps in reducing the efforts required for collection, transport, treatment and disposal of the waste.
- Helps in recovery of good quality compost



### How to Make COMPOST

**MATERIALS REQUIRED:**

- Fruit scraps.
- Kitchen Waste
- Vegetable scraps.
- Coffee grounds.
- Eggshells.
- Grass and plant clippings.
- Dry leaves.
- Finely chopped wood and bark chips.
- Shredded newspaper.
- Composting Container
- Soil and Water
- Time.

IMAGE CREDIT : istockphoto.com/qrtisticco

**POLICIES FOR RESIDENTS :**  
**All Residents having houses above and equal to 1 Kanal, it is mandatory for them to have a backyard compost Unit the same way the administration had done for Solar Panels.**

**IEC & SW RECOMMENDATIONS**

- Effective IEC Campaign is needed**
- Making the Public, Residents and most importantly the Door to Door Collectors aware of the importance of Segregation.in Blue and green Bins.
  - encourage integration in Solid Waste Management including door to door collection of garbage.
  - The Door to door collectors must be capable enough to segregate waste, collect them, dispose them and clean their habitat clean.
  - Inspectorate staff of this staff of this office is also visiting schools, colleges to encourage the students regarding importance of sanitation and hygiene.
  - Regular Chalsans should be done time and again of the violators.
  - Banners, Rallies by RWA and Councilors should be done spreading information about Segregation of Waste.



**Indoor Composting:**

- Indoor composting can be done in special type of Bins which can be brought from local hardware store, gardening supplies store, or can be self made.
- A properly managed compost bin will not stink or attract pests/rodents.
- Regular mixing or turning of the compost and some water will help maintain the compost. **Takes about 5 weeks to develop.**

**Backyard Composting:**

- Select a dry, shady spot near a water source for your compost pile or bin.
- Add brown and green materials as they are collected, making sure larger pieces are chopped or shredded.
- Moisten dry materials as they are added.
- Once your compost pile is established, mix grass clippings and green waste into the pile and bury fruit and vegetable waste under 10 inches of compost material.

**SOLID WASTE MANAGEMENT**

**FACTS AND FIGURES**

- Chandigarh generates Solid Waste approximately 450 MT per day (as per IndianExpress).
- More than 50% waste generated is Compostable/Organic Waste.
- There are around 1500 Door to Door Collectors present.
- 36 Sehaj Safai Kendras where household/Commercial waste is collected.
- All the collected waste from SSKs is transferred to Green tech Fuel Plants in Sector 25 Daddu Majra.
- The Door to Door Collectors are collecting money from residents without giving them any receipt.
- The waste collected by them is not segregated.
- The D2D collectors collect all the recyclables that are of value and dispose them off.
- The Waste collected by the D2D collectors goes to Jaypee plant in Sector 25 where left over is sent to dumping ground.
- The only source of Revenue generation is through Chalsans.
- Sehaj Safai Kendras is a mess and is full of impairment of aesthetics and bad odour.
- Around 90% of Plastic waste is not recycled in the city.



- Methods of Solid Waste Disposal**
- **Recovery and Recycling**
  - Sanitary Landfills
  - **Incineration**
  - Composting
  - Ploughing in fields
  - Hog feeding
  - Fermentation and biological digestion
  - **Pyrolysis**

**ABOUT THE IDEA:**  
 The A1 sheet is divided into 4 solutions that must be provided in sectors for improvement and formation of a process to tackle solid waste management. The 4 ideas if implemented together they would solve the current situation of Solid waste in Sector 35 which can later be incorporated in other sectors based upon the results.. With addition to this, the fact and figures have been collected from various sources which are accurate in their manner. Many imagery references have been taken which depict the current situation of city beautiful and multiple ideas which may help resolve the current problem of solid waste in from the city. Lastly, the idea starts from the left top of the page and rotates anti clock wise direction solving waste problems, at homes, commercial places, reaching the SSKs and final being Disposal by various methods and techniques. From Collection to segregation to Disposal Ideas.

**SEGREGATION AT SEHAJ SAFAI KENDRAS**

Providing a conveyor belt at SSKs where material can be sorted by the door to door collectors which could be later auctioned.

**CASE STUDY : PANAJI :**

- Panaji, Goa **earns more than what they spend on Solid Waste.**
- Women NGO runs the Door to Door duties in which they segregate waste into various categories which get auctioned later on. By this initiative, Panaji remains clean.



The above process shows **collection, transfer to recycling station**, where material is segregated with help of **conveyor belts**. The segregated products are later auctioned. **CONCEPTUALIZATION OF IDEA :**

1. Installation of Conveyor Belts.
2. Recyclables can be segregated collected all together and eventually be sold.

**STREET SWEEPING MACHINE**



- Mechanical Road Sweepers.
- Made in India and Made for all Indian conditions.
- All weather proof, tamper proof and Indian operator friendly.
- Immense suction can lift coconuts, glass bottles, leaves and litter.
- Quick change, re-usable collection bags.
- Zero visible dust emission (Providing a complete cleaning solution)
- Modular design that can be mounted on tempo, trailer.
- Contactless fan technology makes operations safer and quicker with zero choking
- Long hose (20ft.) for enhanced reachability
- Collects both dry and wet garbage
- To be used in Night Cleaning at Commercial Places.
- Suction power of the machine is so good that dewater stagnant water from drains, culverts and covered drains and any form of waterlogging.
- Cost of 1 machine is around 10 Lakhs can be used for at least 2 sectors.

**BENEFITS:**

- Has been set up in South Delhi and the response is very positive.
- Footpath cleaning
- Dust collection
- Street side litter collection
- Independent diesel engine (Zero dependence on vehicles)

Video Link :<https://www.youtube.com/watch?v=tiFaKau8ekM>



- Overcoming obstacles (Using specially designed overhead boom)
  - Can reach small lanes and usually inaccessible areas
  - Efficiently picks wet waste (Even that which is stuck to the ground)
  - Easy and low cost maintenance
  - 2 year warranty with 3 free servicing
- Reference : Spruceup, Greenassets.



**NOTE: Goa generated 2-2.5 Cr. Through Solid waste while Chandigarh only generates 10 Lakhs through chalsans. (as per MC website)**

**BENEFITS OF INSTALLING CONVEYOR BELT:**

1. Can be installed at SSKs and Daddu Majra Dump Site.
2. Increased Workability
3. Revenue Generation by easy and timely segregation.
4. If proper segregation is done by D2D collectors then blue waste can be easily segregated and green waste could be composted without much problem.

**Zenith Roots**  
 Zenith Roots charitable trust is Panchkula based , youth led , non profit organization dedicated to empowerment of women and children who are socially and economically backward. As for children, we believe in wholesome growth and development that makes them culturally, ethically and socially responsible adults. Our aim is to plant in them seeds of equality, humanity and curiosity and hunger for knowledge. As for women , we are currently working on creating awareness about menstrual health and hygiene and telling them about importance of education for their children. We come across many D2D collectors and by sharing this idea we want to spread the importance of Solid waste and how it can be tackled. Mobile : 9023665050