

SOLVING DRY WASTE HANDLING – MATERIALS RECOVERY FACILITY AT NITTE GRAM PANCHAYAT

In a nutshell: An innovative project that provides good waste management service and uses non-recyclable waste as a raw material in cement factories.

Nodal agency: Zilla Panchayat, Udupi, Rajatadri Manipal, Udupi District, Karnataka

Waste materials are hazardous to the lives of humans and animals, if not disposed of correctly. While inappropriate waste disposal mechanisms could be harmful to the people living in the vicinity of dumping grounds and landfills, it also causes health problems to those who handle the waste at the dumping centre. Nitte Gram Panchayat in Udupi district of Karnataka, has come up with the materials recovery facility (MRF).

The project aims to derive maximum resource from the waste, thereby preventing unscientific waste management and protecting the environment, and increasing the efficiency of manpower by performing the waste management duties with the help of simple machines. The initiative also aims to dispose waste to the authorized and final recycling centre and supplying raw materials that cannot be recycled to recycling companies.

Dry waste that is collected from every household within the project area of the gram panchayat is brought to the solid waste management (SWM) centre. This waste is weighed and packaged, and the MRF station's waste collection vehicle collects the dry waste from the SWM centre every week. The waste, thus collected, is weighed at the centre and stored. It is then divided into sections with the help of a conveyor belt and then baled with the help of the baling machine. The recycled waste is sold to authorized recycling companies, while the non-recyclable waste is transported to cement factories for the process of co-processing.

Outcome

- The project has been a great success. It has been critical in increasing the quality of waste collected and reducing public littering.
- It has also been instrumental in increasing public knowledge and awareness about the scientific handling and disposal of different categories of waste.
- Whereas earlier, the gram panchayats either faced difficulty in selling waste or were selling it at low rates to local waste buyers, the MRF centre now buys the waste in large quantities and for a higher rate.
- Where earlier, there was no system for disposal of non-recyclable waste in the gram panchayats, such non-recyclable wastes from the MRF centre is sent to the cement companies to be processed and used in construction of roads.
- Many waste buyers were not willing to buy waste from the Gram Panchayats there was no waste baling facility in the Gram Panchayats, which increased the cost of transport. This has been eliminated by the MRF unit.

Challenges

- The main challenge was to identify the right location for this project. The people of the gram panchayat and the public had to be convinced and the location had to be identified.
- The project required large capital. The total cost of the project is ₹300.10 lakh and under the Swachh Bharat Mission (G), ₹250 lakh were sanctioned and other required grants were matched by various schemes.
- Gram panchayats had to be convinced of the benefits of giving the waste to the MRF center.
- Engaging with an operator who would be instrumental in making the project successful was difficult, because there were no specialized organizations present locally.
- Since there is no official landfill site adjacent to the site, the residual waste is transported to the landfill site at Udipi, which raises the cost of operations.

Scale-up

There are plans to scale up waste collection and to build 4 additional Plastic Waste Management Units (PWMU) at Badagabettu, Kedur, Thrasi and Hebri to support the remaining 144 gram panchayats.



Baled waste



Recycling facility