

BEST PRACTICE - 2

Solid Waste Management at Micro-Compost Centre

Operation and Maintenance of Micro-Composting Center at Kannammamet Burial Ground in Ward-141, Zone-10

Solid waste management is the biggest challenge for Governments world over. Solid waste management is the process of collecting, treating and disposing of solid material that is discarded because it has served its purpose or is no longer useful. Recycling of this solid waste material is both a challenge and a scope due to the volume of debris that is collected on a daily basis. In Chennai, Urbaser Sumeet is the waste management and recycling collection unit which is in operation in Greater Chennai Corporation. The garbage collected from households is dumped in MCC units in burial grounds across the city.

In an effort to work hand-in-hand with GCC and provide a viable solution to the humongous task of recycling of solid waste, Shri Shankarlal Sundarbhai Shasun Jain College for Women signed a contract with Greater Chennai Corporation to setup the Multi-composting Centre (MCC) at Kannammamet Burial Ground, T. Nagar. The College undertook the end-to-end process of collecting the wet waste from Urbaser Sumeet, processing the waste in the MCC to produce organic fertilizer in collaboration with an NGO “Namma Ooru Foundation”.

OBJECTIVES:

The objectives of the project are:

1. To implement a sustainable solution to solid waste recycling and management.
2. To help GCC in the humongous task of recycling the waste collected on a daily basis from households.
3. To engage students in the project to provide hands-on experience and learning.
4. To operate the micro-composting facility seamlessly and produce compost effectively.
5. To provide a source of organic fertilizer for the farmers which is cost-effective and sustainable.
6. To donate or sell at optimal pricing to farmers the compost harvested.

THE CONTEXT:

The burial ground at Kannammamet has been maintained by the Constituent Trust of the Institution for decades. Cleanliness and hygiene have been the priority along with dignity in life and death.

Chennai city generates 5000 tons of mixed waste every day and most of the waste is not managed properly. Urbaser Sumeet is the waste management and recycling collection unit which is in operation in Greater Chennai Corporation. The garbage collected from households is dumped in MCC units in burial grounds across the city.

Greater Chennai Corporation established micro-composting units in multiple locations in the city to compost the organic waste. However, some of the micro-composting units are not functioning properly due to various challenges. One such micro-composting unit is in the Kannammamet burial ground.

As the Members of the Trust were already taking care of the burial ground, it was only natural that the Institution took responsibility towards maintenance and functioning of the MCC unit there.

THE PRACTICE:

In an effort to work hand-in-hand with GCC and provide a viable solution to the task of recycling of solid waste, **Shri Shankarlal Sundarbai Shasun Jain College for Women** signed a contract with Greater Chennai Corporation to setup the Micro-composting Centre (MCC) at Kannammamet Burial Ground, T. Nagar in June 2021. The College undertakes the end-to-end process of collecting the wet waste from Urbaser Sumeet, processing the waste in the MCC to produce organic fertilizer. As it is situated near Ranganathan Street, daily 1 tonne of wet waste is being collected for the process.

- **Shasun Jain College**

The College adopted the MCC unit in Kannammamet from GCC for processing compost by collecting waste from Urbaser. The college procured all the machinery for the MCC unit and employed transgenders also as staff. The project focused on reducing environmental pollution, reducing the number of landfills, and creating employment opportunities for underprivileged communities.

In order to create a future generation which is aware of the need of the hour, students were made a part of the project. Currently, 50 students are involved in the project. Additionally, around 100 NSS students of the college participated in a rally and collected plastic waste on the streets. They created awareness among the general public on the significance of segregation of waste at source.

- **Greater Chennai Corporation**

GCC taking initiatives to promote composting through its micro-composting units across the city, since it significantly cuts down the amount of trash in a landfill and reduces the carbon emissions composting enriches the soil with nutrients, which reduces the need for fertilizers and pesticides.

- **Urbaser Sumeet**

Urbaser Sumeet is a leading environmental managing company, which undertakes solid waste management through an eight-year contract in the Chennai city. They provide wet waste to MCC units, by collecting it from towards (133, 134 & 141) in T.Nagar area. As a service provider, it is creating awareness of segregating waste among the public.

- **Residents of the Specified Wards**

Residents of the three wards are given awareness by ENACTUS team students on segregation of wet waste, dry waste and hazardous waste at source while disposing from their households. They are encouraged to discard the waste safely and properly in the waste bins or to the garbage collector.

The project is confined to organic waste only. Urbaser Sumeet will deliver minimum 1 ton the organic waste at the MCC on or after 12 noon. The college procures all the machinery for the MCC unit.

EVIDENCE OF SUCCESS:

The ultimate goal of the project is to maintain this unit as a **Model MCC** which is self-sustained with a capacity to handle the garbage load received in the ward / zone and cater to the requirement of organic compost for the agricultural land around Chennai. The beneficiaries are the general public and farmers, specifically.

The first milestone of success was the First “Compost Harvest Festival” at the Compost Unit which was celebrated on April 12th, 2022. Honorable Thiru. M. Subramanian, Health and Family Welfare Minister, Honorable Thirumathi. Priya Rajan, Mayor, Greater Chennai Corporation, Thiru.Gagandeep Singh Bedi, IAS, Commissioner, Greater Chennai Corporation, Thiru. Mayilai T. Velu, Chennai South-west District Secretary, Thiru. J. Karunanidhi, MLA, T.Nagar, Thiru. M. Krishnamurthi, Counselor, and Ward members Thiru. Ezhumalai and Thiru. Raja Anbazhagan were the guests of honour. The first produce was around 400 kgs. The compost produced will be distributed to farmers at a nominal price as per the farmers’ requirement and also to General public.

Students of the institution are perfectly attuned to the working of the MCC unit. The students are engaged in tracking the input and output of the waste management process and managing accounts digitally.

Inside college campus, students trained to sieve the processed compost with the help of sieving machine and pack the compost which is ready for sale. Students also being engaged in selling process, in the compost shop within the college campus. Till December 2022 students have sold 2 tons of compost to general public and slot 25 kgs to farmers at reasonable price.

The students gave a facelift to the unit by painting the MCC unit and displaying posters on Segregation of Waste and Solid Waste Management.

The operations of the unit are carried over by the sanitary workers and staff & students of the institution. The project is guided by Mr. Natarajan of Namma Ooru Foundation, an NGO for expert advice on process of compost preparation.

This project is ongoing.

PROBLEMS ENCOUNTERED:

Firstly, the problem encountered is non-availability of sanitary workers. As the venue of work is a burial ground, workers do not often prefer working there.

Secondly, the quantity of wet waste collected on a daily basis from URBASER, is also huge. The venue of the MCC is under the directive of the GCC. Hence, the Institution does not have the freedom to increase the work space.

Thirdly, the intermittent rains and cyclonic situations in Chennai also play major hindrances.

Lastly but importantly, the stigma of visiting a burial ground for the project was a deterrent in engaging students in the project.

CONCLUSION

The Institution is proud to have taken this responsibility which has a significant impact on quality of living of the population and to the environment. The other impacts of this project are positive reinforcement of segregation of waste, compost as organic fertilizer, rejuvenation of Earth, and entrepreneurial opportunity with sustainable development.

It also provides hands-on learning experience for the students, sensitizing of the neighborhood community towards segregation of waste, and environment consciousness. Further awareness needs to be created on the importance of solid waste management and environmental management for global sustainability and minimizing the environmental impact of human progress.

The Principal and the Management gave positive reinforcement of the significance of the project. The Principal and the project Director along with students visit the premises regularly. Parent consent was obtained from the volunteering students those are visiting and working in this project.