

## **Success Stories in Solid Waste Management in Tamil Nadu**

### **Decentralized Waste Management System**

Composting in a decentralized manner for a particular ward / community / apartments / markets reduces the burden of transportation of municipal solid waste to the waste processing facility / dumpyards. Decentralized composting generally handle waste from very small quantities to 20 TPD.

In Tamil Nadu, Vellore Municipal Corporation has implemented 36 Decentralized composting units for their daily generation of 230 tons of municipal solid waste. Similarly, Tiruchirapalli Municipal Corporation has established 20 decentralized locations for collection, segregation and treatment of municipal solid waste. Similarly, separate Wet & Dry waste collection system is being practiced at Coimbatore Municipal Corporation. Out of 900 MT wastes generated 200 MT is being maintained at local level by this approach covering 50 wards.

### **Waste to Energy Initiatives**

#### **Biomethanation cum power plants:**

In Tamil Nadu, 33 Biomethanation plants of capacity 3 MT, 5MT and 10MT have been taken up in 8 Corporations and 23 Municipalities at a cost of Rs.30.39 crores. Approximately 2000 kWh electricity is being produced per day through biomethanation and is utilized for plant operations and to illuminate the nearby street lights. In addition, Greater Chennai Municipal Corporation has established 11 number of biomethanation plants and another 8 biogas plants are under various stages of construction. Similarly, at Coimbatore Municipal Corporation, the Energy (Gas) produced from 3 Biogas plants are utilized for Gasifier Crematorium, School Kitchen and Slum Community kitchen. Similarly, food waste to energy projects has been implemented in the Mamallapuram, Papparatti, Kannakurichi, Musiri, Puliur, Punchai, Sholavanthan, P.N. Palayam, Vatlakundu and Uthamapalayam Town Panchayats

#### **Vengadamangalam MSW to Power Project in Kancheepuram District**

Integrated Municipal Solid Waste Management for Pallavaram & Tambaram Municipalities project has been proposed in order to generate power from the municipal solid waste. The Waste to Energy project at Vengadamangalam for Pallavapuram and Tambaram Municipalities is being established through Public Private Partnership (PPP) mode. The first phase of work is completed and RDF is being produced. On completion of the second phase of work, the waste to energy plant will be operational with an expected electricity generation of 2.9MW per day.

**Good MSW initiatives**

There are two model plant for sustainable waste management in village panchayats, namely Kurudampalayam village panchayat in Coimbatore District and Panapakkam village panchayat in Vellore District. They have adopted solid and liquid resource management system (SLRM) in which the fresh wastes from households and commercial firms in the village have been collected daily in the morning and evening in the form of biodegradable and non biodegradable and manually segregated by trained self help group in an earmarked place. About 148 waste items are segregated and sold out to the recyclers thereby generating income from the waste. This model is an example for sustainable waste management system where one waste is used as raw material for another product. The wasted egg shells are dried, crushed into powder and sold out as manure for rose plants, because of its high calcium content. The vegetable peels are sent to cattle farm because of its freshness. Dry leaves and plants are sent for composting and generate manure. The cow dung and other food wastes are sent for biomethanation plant and the gas is used for cooking food for the persons involved in segregation. The project is operated by the ward council and the president of the Panchayat and initially funded by the Government through DRDA Department. This Panchayat is using battery operated vehicles and the batteries are charged by solar power inside the premises. Eventually no waste is ended up in landfill and the locally unemployed women got earning potential through a handful of salary through this project and not only their livelihoods increase, but also their environment has become hygienic and lovable place for them. This pilot project by an NGO needs to be evaluated for sustainability and is being visited by others.

**Reclamation of Land:**

The land available for compost yard in some of the Municipalities namely, Kumbakonam, Mayiladuthurai, Chidambaram, Usilampatti, Namakkal are being dumped with legacy waste for decades. These existing dump sites are in process of being revamped with the bio-mining process, using active micro organism and Tromel in order to reclaim and recover land for the beneficial use and also to reduce environment impact on the existing dumping site.

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