



Decentralised Composting

Fact Sheets from 5 Cities in Southern India



Scientific Handling of Waste (SHOW)

City/ State:	Bangalore/ Karnataka	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation with a Committee	
Number of households served:	180	
Waste Collection System:	House-to-House collection with push carts	
Composting Technique:	Bin Composting with additional aeration	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	50 kg/ day	18.3 t/ year
Output of Compost:	4,5 kg/ day	1,7 t/ year
Compost Price:	Rs 8/ kg	
Customer/ Market:	Residents	
Area of Composting Site:	189 sq m	
Funds:	Collection of fees from households	Rs 300 a year per household
Total initial Investments:	Rs 92,800	
Number of Employees:	3	

You see that you cannot see it!



Forced Aeration



The Initiators of SHOW

CEE Kalyan Nagar Residence Association

City/ State:	Bangalore/ Karnataka	
Type of Organisation:	Neighbourhood Initiative with support from NGO	
Organisational Set Up:	Community Based Organisation with a Committee	
Number of households served:	980 (Block I) – Total 3826 in 3 Blocks	
Waste Collection System:	House-to-House collection with push carts and tricycles	
Composting Technique:	Bin Composting, 3 Units	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	122 kg/ day (Block I) - total 650 kg/ day	35.2 t/ year
Output of Compost:	14.2 kg/ day	5.2 t/ year
Compost Price:	Rs 6/ kg	
Customer/ Market:	Residents	
Area of Composting Site:	499 sq m	
Funds:	Collection of Fees from Households	Rs 180 a year per household
Total initial Investments:	Rs 8,68,000	
Number of Employees:	31 (mainly waste collectors)	



Terra Firma

City/ State:	Bangalore/ Karnataka	
Type of Organisation:	Private Company	
Organisational Set Up:	Private Company with Franchise Contracts in different cities	
Number of households served:	Markets and industries	
Waste Collection System:	Delivered segregated waste	
Composting Technique:	Pre composting in heaps/ vermi composting	
Feed Stock (Type of Waste):	Biodegradable industrial waste, market waste, agricultural waste	
Amount of Waste:	96,000 kg/ day	35,040 t/ year
Output of Compost:	13,860 kg/ day	5,060 t/ year
Compost Price:	Rs 3/ kg	
Customer/ Market:	Fertiliser Company, Compost sold under trade mark "Ralli Gold"	
Area of Composting Site:	40,000 sq m	
Funds:	Sale of compost	Rs unknown
Total initial Investments:	Rs 66,00,000	
Number of Employees:	45	



Residents Initiative for a Save Environment (RISE)

City/ State:	Bangalore/ Karnataka	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation with equal members and responsibilities	
Number of households served:	1200	
Waste Collection System:	House-to-House collection with push carts	
Composting Technique:	Bin Composting	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	300 kg/ day	108 t/ year
Output of Compost:	60 kg/ day	21 t/ year
Compost Price:	Rs 10/ kg	
Customer/ Market:	Residents	
Area of Composting Site:	288 sq m	
Funds:	Collection of Fees from Households (including other services)	Rs 1200 a year per household
Total initial Investments:	Unknown	
Number of Employees:	Unknown	



Central Leather Research Institute/ Better Environment for Long Life BELL

City/ State:	Chennai/ Tamil Nadu	
Type of Organisation:	Private Operator as Contractor of the Institute	
Organisational Set Up:	Private Operator	
Number of households served:	350	
Waste Collection System:	Delivered from another contractor House-to-House collection with push carts	
Composting Technique:	Pit Composting	
Feed Stock (Type of Waste):	Mixed waste, has to be sorted before composting	
Amount of Waste:	300 kg/ day	108 t/ year
Output of Compost:	Unknown (new)	
Compost Price:	Rs 10/ kg	
Customer/ Market:	None up to now	
Area of Composting Site:	294 sq m	
Funds:	Monthly Payment from CLRI according to Contract	Rs 20,000 per year
Total initial Investments:	Unknown (but mainly provided by CLRI)	
Number of Employees:	2	



EXNORA

City/ State:	Chennai/ Tamil Nadu	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation with a Committee	
Number of households served:	300	
Waste Collection System:	House-to-House collection with push carts	
Composting Technique:	Backyard Composting and Bin Composting	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	300 kg/ day	108 t/ year
Output of Compost:	Unknown	unknown
Compost Price:	Rs 7/ kg	
Customer/ Market:	Residents	
Area of Composting Site:	40 sq m	
Funds:	Collection of Fees from Households	Rs 480 a year per household
Total initial Investments:	Rs 17,000	
Number of Employees:	4	



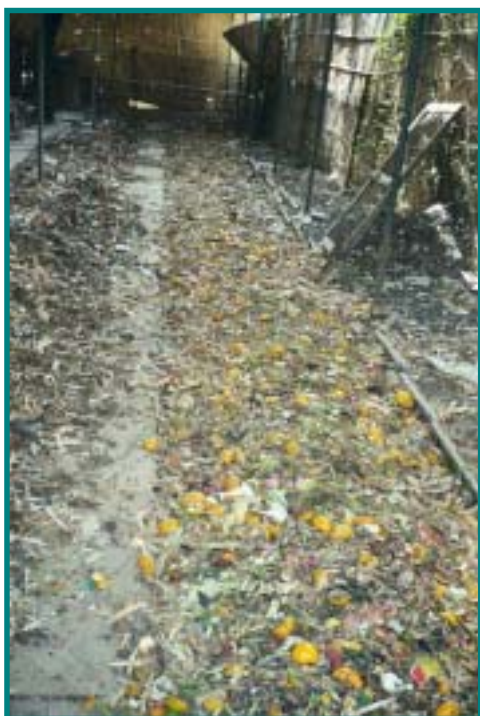
Pammal Residents Initiative

City/ State:	Chennai/ Tamil Nadu	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation with a Committee	
Number of households served:	476	
Waste Collection System:	House-to-House collection with tricycles	
Composting Technique:	Vermi-Composting in Bins	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	100 kg/ day	36.5 t/ year
Output of Compost:	25 kg/ day	9.1 t/ year
Compost Price:	Rs 10/ kg	
Customer/ Market:	Residents, Hospital	
Area of Composting Site:	300 sq m	
Funds:	Collection of fees from households	Rs 120 a year per household
Total initial Investments:	Rs 10,000	
Number of Employees:	3 + 3 volunteers	



Sindh Colony

City/ State:	Pune/ Maharashtra	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Colony Committee and Individuals	
Number of households served:	264	
Waste Collection System:	House-to-House collection with pushcarts	
Composting Technique:	Vermi compost in windrow (residential waste) and pit composting (garden waste)	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	200 kg/ day	73 t/ year
Output of Compost:	50 kg/ day	18.3 t/ year
Compost Price:	Rs 6/ kg	
Customer/ Market:	Residents of Colony and Neighbours	
Area of Composting Site:	241 sq m	
Funds:	Collection of Fees from Households (including other services for the colony)	Rs 1200 a year per household (all services)
Total initial Investments:	Rs 78,500	
Number of Employees:	7	



Shallow heaps



Roofed and fenced area



Push-cart

Orchid Ecotel (5* Hotel)

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Private Company, Dep. Environmental Management	
Organisational Set Up:	Composting is one measure in an overall waste minimisation concept of the Orchid Hotel	
Number of households served:	1 hotel	
Waste Collection System:	At source separation in hotel kitchens	
Composting Technique:	Vermi-Composting in Bins	
Feed Stock (Type of Waste):	Segregated biodegradable kitchen and food waste	
Amount of Waste:	114 kg/ day	41.6 t/ year
Output of Compost:	10 kg/ day	3.7 t/ year
Compost Price:	Direct use	
Customer/ Market:	Own use in gardens and green strips	
Area of Composting Site:	38 sq m	
Funds:	Budget in Hotel Plans	unknown
Total initial Investments:	Rs 116,000	
Number of Employees:	2	



At-source separation in the hotel kitchen kitchen



Diamond Garden Residents Forum (DGRF)

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation, supported by City of Mumbai as "Advanced Locality Management (ALM)"	
Number of households served:	125	
Waste Collection System:	House-to-House collection with push carts	
Composting Technique:	Bin Composting	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	60 kg/ day	21.9 t/ year
Output of Compost:	12 kg/ day	4.4 t/ year
Compost Price:	Rs 6/ kg (only external customers)	
Customer/ Market:	Residents (few external customers)	
Area of Composting Site:	100 sq m	
Funds:	Collection of Fees from Households (including other services)	Rs 360-1200 a year per household
Total initial Investments:	Rs 8,000	
Number of Employees:	2	



Diamond Garden Residence Area



Compost Bins on a Drain



Former Dump Site transferred to a Composting Site



The Initiator

Sandu Lane Residents Initiative

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation, supported by the Municipality as “Advanced Locality Management (ALM)”	
Number of households served:	120	
Waste Collection System:	House-to-House collection with push carts	
Composting Technique:	Vermi-Composting in Bins	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	Unknown	Unknown
Output of Compost:	Unknown	Unknown
Compost Price:	Rs 16/ kg	
Customer/ Market:	Residents	
Area of Composting Site:	18 sq m	
Funds:	Collection of Fees from Households (including other services)	Rs 360-1200a year per household
Total initial Investments:	Rs 14,800	
Number of Employees:	4 (part time)	



Composting Bins and Flower Pots

Vermigold International at Dadar Pumping Station

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Private Company, Consultant	
Organisational Set Up:	Private Company as contractor of the Municipality	
Number of households served:	1 Market	
Waste Collection System:	Collection of market waste at source by own workers	
Composting Technique:	Vermi Composting in windrows	
Feed Stock (Type of Waste):	Segregated biodegradable market waste	
Amount of Waste:	5000 kg/ day	1,825 t/ year
Output of Compost:	Unknown	Unknown
Compost Price:	No sale of compost, but feedstock for new vermi-composting plants	
Customer/ Market:	Institutions and Hotels who want to start composting	
Area of Composting Site:	1,700 sq m	
Funds:	Monthly payment from Municipality/ Consulting Services	unknown
Total initial Investments:	Rs 52,000	
Number of Employees:	9	



Shyam Nagar (unplanned settlement)

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Neighbourhood Initiative	
Organisational Set Up:	Community Based Organisation, supported by the Municipality as “Advanced Locality Management (ALM)”	
Number of households served:	350	
Waste Collection System:	Public Bins for residues and one public compost pit	
Composting Technique:	Pit Composting	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	350 kg/ day	128 t/ year
Output of Compost:	Not relevant as batch process	1.2 t/ year
Compost Price:	Rs 0 / kg	
Customer/ Market:	Residents and institutions in the neighbourhood get compost for free	
Area of Composting Site:	18 sq m	
Funds:	Rs 0	
Total initial Investments:	Rs 0 voluntary work	
Number of Employees:	1 volunteer worker	



Compost pit on the way to the main road



Green Cross at Varsova Pumping Station

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	Private Company	
Organisational Set Up:	Private Company as contractor of the Municipality	
Number of households served:	2 Markets	
Waste Collection System:	Collection of market waste at source by own workers	
Composting Technique:	Heap Composting – later Vermi Composting	
Feed Stock (Type of Waste):	Segregated Biodegradable Waste	
Amount of Waste:	5,000 kg/ day	1,825 t/ year
Output of Compost:	Unknown	Unknown
Compost Price:	Rs 3/ kg	
Customer/ Market:	Not clear yet, but rural and peri-urban farmers who do organic farming	
Area of Composting Site:	1,400 sq m	
Funds:	Payment from Municipality according to the amount of collected waste (contract)	Rs 2600 per ton of waste
Total initial Investments:	Rs 90,000	
Number of Employees:	9	



Clean Air Island Composting Site at Colaba Pumping Station

City/ State:	Mumbai/ Maharashtra	
Type of Organisation:	NGO	
Organisational Set Up:	NGO and Municipality sharing costs and income	
Number of households served:	6 markets, 3 naval canteens	
Waste Collection System:	Workers collect waste at source with electric vehicles	
Composting Technique:	Vermicomposting in shallow heaps	
Feed Stock (Type of Waste):	Partially segregated biodegradable waste	
Amount of Waste:	5,000 kg/ day	1,825 t/ year
Output of Compost:	Unknown	Unknown
Compost Price:	Rs 20/ kg	
Customer/ Market:	Neither market nor customers identified	
Area of Composting Site:	760 sqm composting, 1,650 sq m total area	
Funds:	Payment from Municipality according to the contract	Bulk payment
Total initial Investments:	Rs 700,000 (including electrical powered vehicles)	
Number of Employees:	5	

