

## **Field Visit to Karnataka Compost Development Corporation Ltd**

**Date of Visit:** 22/4/08

**Place of Visit:** KCDC, Haralakunte, Hosur Road, Bangalore

**Members interacted with:** Mr. C Basavaiah, MD, KCDC Ltd & Staff members of KCDC Ltd.

### **Team:**

1. Mr. Ravishankar, EE-SWM, DMA
2. Mr. Nagesh Kumar, Env. Engg, DMA
3. Mrs. Snehalatha, Env. Engg, DMA
4. Mr. Subash. H.V, RA-SWM, CMAK

### **Introduction:**

The Karnataka Compost Development Corporation Limited (KCDC) is a government of Karnataka organization. KCDC Ltd is working on scientific composting since 1975 by developing own technology for treating segregated or un segregated waste. The technology and machineries for starting the composting activity was provided by WHO (World Health Organization). This unit has gone strength to strength over a period of time. The manure produced at KCDC is of high quality and it has good market value.



### **Statistics:**



The unit started with 50 TPD plant capacity and has now reached 300 TPD. But the plant is receiving about 600 TPD of waste. This unit has about 100 employees. The plant area is about 15 acres. The rejects in the plant is piled up to 10 mts. Since the intake capacity is high and land for rejects disposal is not provided the KCDC Ltd has stopped taking waste from few days.

### **Facility available at the site:**

The infrastructure available for both windrow & vermin composting are; Compound wall, Green belt, weigh bridge, concrete platform, leachate tanks, storm water diversion, laminated plastic sheets, office building, internal peripheral



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roads, control rooms, machineries for processing waste (screens of size 50 mm, 25mm, 12 mm), shelter provided for processing & Storage, processing equipments, water supply, power supply, vermin composting pits & Shelter for those pits. Tools & equipments like JCB, Bobcat, windrow turning machines etc.

### **System /Technology followed:**

Here the waste is degraded over a specific period of time with or without culture is very vital in



preventing environmental pollution, which is a basic objective of treating waste. KCDC Ltd is following two types of composting, Windrow composting and vermin composting. The waste will be



placed in windrows for few days, which will be semi composted.

The windrows will be turned regularly with the help of machineries daily. Once the waste is semi



composted, it will be covered by plastic sheets. When the composting of waste is over this will be fed into mechanically rotating big screens of size 50 mm, followed by 25 mm & 12 mm, where in the rejects will be removed. The final collected composted manure will be packed and sent to storage room. The

vermin composting is carried out in 50ft X 3ft X 1.5 ft size pit, where in the earthworms will be fed into the loaded waste and finally covered with gunny bags to avoid sun light. Once the process is completed the earthworms will be retained there and the manure is screened and packed.



### **Financial Details:**

KCDC has been making profits for the past several years. The organization is making profit by selling composted manure to farmers. The fine quality manure from vermin composting is sold for about Rs 2500/ton and manure from windrow composting activity is sold for about Rs. 1500/ton. The organization is entirely running on its capability, this shows the financial feasibility of the organization.

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### **Results achieved:**

Daily about 30 to 40 tons of composted manure is being produced and sold. The plant is also able to manage overload (600 TPD) of incoming waste. The resultant manure obtained by KCDC is well sanitized and stabilized organic manure which has been widely accepted by the farming community at large in respect of its quality and affordability.



### **Observations:**

Although the plant is operating for 600 TPD, the rejects piled up at the site is too high and there is a need to take action for land filling or treating these. The technology & machineries has to be upgraded for handling of present in take of waste, which needs huge capital cost for this purpose. Leachate treatment should be taken care. Public aesthetics should be considered along with improving green belt.



### **Sustainability:**

As we can see the plant being operated from past 33 yrs and it's been in profit, this shows the financial KCDC is being replicated by country, this shows the KCDC Ltd has applied for which the company is upfront. This money will be technology & equipment, purchasing land and improve its infrastructure. This makes sure for future expansion & suitability.



sustainability. The technology of many Urban Local Bodies in the technological sustainability. claiming carbon credits, through receiving about Rs.10 crores utilized to replace the old

### **Acknowledgement:**

Finally I would like thank Mr. Basavaiah, MD and KCDC ltd staff for accompanying the team and providing us the information. I would like to take this opportunity to congratulate KCDC officials for their efforts in running un-interrupted functioning of the unit for 33 years and also for extending support by sharing their experience and knowledge with the ULBs.