

Report on Study Tour
To
Suryapet....A bin less and zero Garbage Town
Under Best Practice Transfer Program
By
City Managers' Association, Karnataka



Visited & Documented team

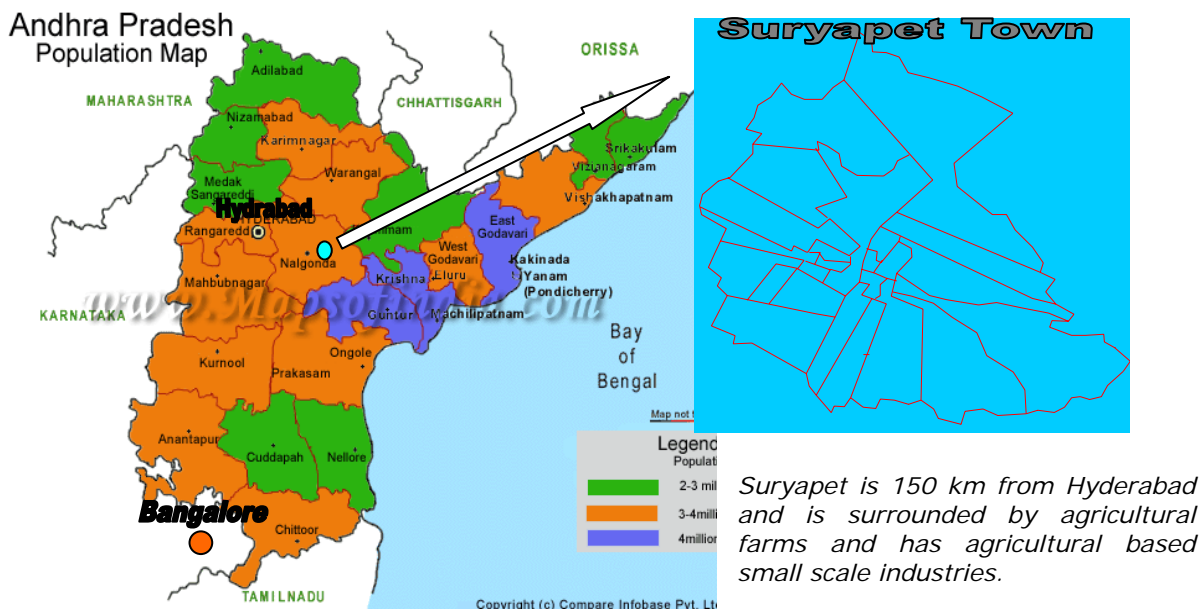
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Suryapet...

Dustbin free & Zero Garbage Town

Town Profile

Location	: Longitude – 79° 7' E Latitude – 17°5' N
District	: Nalgonda Dist
Constitution of Suryapet	: 1952 (Up graded as Gr. Municipality vide G.O.M.S.No.385, Dated: 07/11/1998)
Type of town	: Agriculture based
Population	: 1, 03, 000 as per Census 2001
Area Spread	: 34 sq. km
Density	: 2943 person/sq.km
Number of wards	: 28
Number of households	: 30183
Number of slums	: 44
Total road length	: 215 km
Total drain length	: 198 km
Special Feature	: Town is known as gateway of Telanga
Total waste generated per day	: 32 tones per day



The town generates every day 32 tonnes of waste. The town is residential type where in 42% of the population lives in slum. The city is agricultural based and has few agricultural industries.

Situation before

As any other towns, Suryapet had garbage dumps on road and drains. Managing solid waste was burning problem required immediate attention and care. The waste generators use to throw the waste directly on streets, open plots and drains thereby causing problems for health, environment and aesthetics. The municipality was functioning in an adhoc way without proper management plan for collection, transportation and disposal system for solid waste. The weaker sections of the community and children were most affected due to insanitation condition. The general health conditions and efficiency of the workers was at the lowest ebb. The waste was burnt in open atmosphere thereby degrading environment.



Inspiration

The initiative is commenced by Mr. Khader Saheb, Municipal Commissioner, Suryapet in Dec'2002; with single agenda to clean the town and thereby improve the quality of life of people living there. Earlier, the official had attempted similar exercise at Mandapet municipality to make it a dustbin free town with his innovative ideas and achieved a reasonable success. This experience helped the official in implementing it in Suryapet municipality and there began the voyage of Suryapet toward dustbin and garbage free town.

CHALLENGES faced by the Commissioner!!!

- 👍 To achieve effective solid waste management system within the municipal resources,
- 👍 To conduct awareness among the various target groups,
- 👍 Bring in efficiency with in the sanitary workers,

- 👍 To build the capacity of council and health staff &
- 👍 To achieve an economical SWM system within the framework of Hon'ble Supreme Court.

Summary of the Process

As in any municipality; for any developmental activities, the support and approval of the council is very much required. Thus, the Commissioner first approached the council and presented his views of having a proper collection system for solid waste. In the beginning, the response was not encouraging however, the President who was convinced with the proposal took supportive steps and later the Councilors also agreed with the Commissioner. The Commissioner analyzed that the revenue generated by the ULB is very less hence the new system for SWM has to be economical. He could think of the only solution that is *optimum utilization* of existing resources. Then he went ahead with major campaigns in an economical way for creating awareness. Initially the Commissioner was not aware of the Supreme Court guideline, but later on, a private consultant called EXNORA helped the municipality in understanding the MSW Rules 2000 and there by suggested to create awareness for segregating the waste. The President had donated plastic dustbins for distribution to households to encourage segregation in 24 wards. The municipality identified a squad team to monitor the activity regularly. A fine ranging Rs. 100 to 200 was levied on defaulters which were approved by the Council and made a resolution. The municipality then constructed recycling unit and vermin-compost unit and started composting. The construction of waste processing and Sanitary landfill site at the new location, this will be completed shortly.

The process is explained in detail below.

- 1. Awareness Creation:** The municipality thought of innovative and effective ways for creating awareness without any investments for various target groups as mentioned below.

- a. Sanitary Staff:** To start with, the Commissioner planned to arrange trainings and capacity building programs for sanitary workers and supervisory staff. He organized Meditation, Medication and Yoga (also called as MMY) classes by Guru Bhikshamaya and Guru Nasaiah for the sanitary workers for every 3 hours in a day for 10 days period. The Classes were conducted in batches of 70 workers each.



The Commissioner personally delivered speeches to the sanitary staff on every morning for 10-15 minutes motivating and educating them on importance of personnel hygiene and cleanliness, health improvement, intake of nutritious and health food and personality development. He had an optimistic approach towards the workers. He started interacting with the workers listening to their problems and encouraging them by telling that the work performed by them is good but it requires further improvement in it. He personally discussed the problems of workers like uniforms, on-time salary, behavior of the other staff etc., and tried to solve them within his limits. This gave a very good impression and also encouraged the workers to deliver better results.

- b. Households and commercial:** Commissioner, Health Inspector and DWCUA groups visited to each street in the morning 6.30 AM where in all the residents were gathered and motivated to store the waste within their premises. The Commissioner then installed a public addressing system to the municipal vehicles for any kind of announcements. The municipality organized street plays, audio announcements, playing awareness films and interesting audio advertisements to attract the public concentration. These tapes were played between 6 to 10 AM and again on 5 to 6 PM. Each shop was asked to maintain a carton box to collect the waste and deliver it to the municipal collection vehicle.

- c. BPL and Slum Households:** In low income group areas, people were gathered and educated about the segregation. To encourage and attract their attention, competitions were conducted regarding segregation of waste and distributed prizes like pots, vessels etc.



- d. School and colleges:** On each day after completing street meeting with households, any one of the school within that locality was targeted. A small 15 minutes speech was delivered by the Commissioner educating the students about the importance of personal hygiene, segregation and environmental issues during the assembly. The message was publicized and implemented as these children forced their parents to follow segregation and deliver the waste only to the municipal vehicles.
- e. Traders:** Numbers of meeting were organized at the trader's convenient place and time requesting them to cooperate with the municipality in this initiative. The medical association was then requested to have their own system for bio medical waste collection and transportation. Then the medical association hired an auto which collects waste from all the medical centers and transports it to the designated location.
- 2. Primary Waste Collection:** The entire Town is divided into 7 zones. Zone wise data i.e. households, shops, hotels, length of the roads etc. were collected. Zone wise workers, equipments and vehicles were redeployed. Each zone was allotted with one tractor for door to door waste collection.

- a. Households:** The day begins with an attendance at 5.30 AM and door to door waste collection starts at 6.00 AM till 10.00 AM. Each tractor will be allotted with 3 workers and one driver. The tractor has two compartment made out of a simple detachable wooden board covering 1/3rd of the trailer area. The driver will keep whistling in intervals so that people come out to deliver the waste. The waste will be collected from both the sides of the streets by two workers and one worker will be on the vehicle to handle the bins.



- b. Street Sweeping:** The roads are classified into daily, once in three days and once in 10-15 days sweeping types. A group of workers were allotted with timings and roads which they have to sweep as per the schedule. One worker will sweep and make the heaps at regular intervals; another worker will collect the heaps in a HDPE bin and transfer it to the tractor vehicle at defined location. Two tractors are been allotted for this purpose.



c. Construction debris and desilted waste collection: One tractor is been allotted for this purpose which collects the debris from each zone on any one day of the week. This waste is used for filling pot holes and reclaiming the low lying area. A new municipal office building is proposed to be built after reclamation of the low lying area.



d. Commercial areas: Two tractors are exclusively allotted for waste collection from main roads and commercial streets between 10.00 AM to 12.00 noon.

e. Slaughter house waste: The town has one slaughter house which is maintained by the municipality. The waste from slaughter house is loaded into tractors and transported to dump site.

3. Transportation of waste: The wastes from the tractors are then transported directly to the treatment plant where the recyclables are retrieved from the waste and the organic waste is composted. The inorganic waste is then unscientifically dumped in low lying areas.



4. Processing and Disposal: The municipality has established a shed for storing recyclable waste and compost unit consisting of 4 pits of 4 x 40 x 1.5 ft dimension. Only 3 tons of waste was composted in this unit which was not sufficient. Municipality is facing a common problem of marketing the compost generated. The shed is constructed under APMC grant. The municipality has following two lands.



Phase	Wards covered	Survey Number	Extent	Distance
I (already constructed)	3 – 16	187 at Ambedkar Nagar	1400 sq. yards	2 km
II (construction is going on)	1,2,6,9,17-28	267 at Kasarabada Road	2 Acres	10 km

In the proposed site, scientific landfill unit, windrow and vermin composting unit are planned to be constructed. Since there is no technically qualified experienced person the project is delayed.

Innovations in the process!!!

- ⌘ The municipality has effectively utilized the existing resources. None of the SWM activities are outsourced hence brought an efficient and economical system.
- ⌘ The recyclable waste is collected and separated in shed into various types like coconut shells, plastics of different grades, paper of different quality etc., as per the market demand to get more revenue and are being sold to an identified recycler/purchaser.
- ⌘ The sanitary workers trained about the personal hygiene and habits which indirectly strengthened the bond between municipality and the workers. Due to this confidence the performance delivery level of workers has drastically improved.
- ⌘ The Awareness program was conducted in a very effective way involving all the groups. Time was not a constraint for conducting such awareness programs. The IEC materials i.e. audio cassettes, movie, posters etc are being innovatively distributed in a wide way by the municipality – this is being continued till today.
- ⌘ The Council has passed a resolution of collecting penalty from Rs. 100 to 500 from the defaulter who will be throwing the waste on streets.
- ⌘ The most effective and unique feature of this initiative is that a public addressing system attached to the squad vehicle keep going on rounds. Normally IEC cassettes are played, but in case any defaulter is caught then the Commissioner creates a big drama embarrassing them in front of the public gathering and also collecting the fine. This method helped in creating a fear among the public against littering and throwing waste openly.
- ⌘ Government Doctor visits the Municipality and checks the workers' health regularly.

- 8 The removed dustbins are been distributed to the neighboring Panchyats free of cost to encourage them to adopt Suryapet Model.
- 8 The ideas given by various technical experts like Mrs. Almitra patel, Mr. Srinivasan etc., were tried and tested by the municipality. The best technology was then planned to be tried in the new landfill site. The Commissioner is open to suggestions and frankly tries to implement the same for the benefit of town and municipality.

Management Plan

The municipality has following infrastructure:

Particulars	Existing Numbers
Municipal Tractors	5
DWACUA Tractors	5
Workers	297
Health Inspectors	1
Junior Health Inspector	2

Deployment Plan

Vehicles:

- 7 Tractors : door to door waste collection from 7 zones
- 1 tractor : collection and transportation of construction and desilted waste
- 2 tractors : collection & transportation of waste from shops and bulk waste generators

Workers:

- 40 : 4 loaders in each tractors = 10 x 4 =40 workers
- 130 women workers : street sweeping (day and night)
- 120 workers : drain cleaning
- 6 workers : compost unit
- 1 worker : watchman at new landfill site

Results achieved

The municipality is successful in achieving

- 8 All the 360 bins are now removed and 100% door to door waste collection is been achieved.

- ♻ No garbage and Bin less town
- ♻ Clean environment and Odour-free atmosphere
- ♻ Free from Stray animals and mosquitoes
- ♻ Sanitation related compliant have reduced to nearly 90%
- ♻ Occurrence of Communicable diseases in the town rapidly decreased during the period 2001 to 2004
- ♻ People have got confidence in municipality and Commissioner
- ♻ The town has received recognition in the State thereby becoming a role model for rest of the towns.

The Hon'ble Supreme Court has entitled the town as bin less and Zero Garbage Town which is the one of the first towns to comply with the Solid Waste (Management and Handling) Rules 2000. The Hon'ble Supreme Court has given a statement that

“Lack of funds is no excuse for inaction. Smaller towns in every State should go and learn from Suryapet in Andhra Pradesh (Pop. 103,000) and Namakkal in Tamil Nadu (Pop. 53,000) which have both seen dustbin- free “Zero Garbage Towns” complying with the Municipal Solid Waste Management Rules since 2003 with No financial input from State or Centre, just good management and a sense of commitment.”

Observations

- Local body has kept most of its drain uncovered to facilitate easy cleaning operations.
- Proper awareness and enforcement has to given especially in commercial areas as they are defaulters.
- During field visits it was observed that the management plan can be redesigned to get all the jobs done.
- The municipality requires proper technical guidance for construction of landfill unit.
- The hard core municipal health staff is dedicated to perform their roles.
- Elected Representatives extends great support to the Commissioner and staff to perform their task properly. They never interfere with any penalty or other proceedings especially connected with SWM.
- Dedicated Commissioner delivering his roles and responsibility in a very effective manner.
- The Municipality has developed a good E-Governance and citizen service center that citizens don't have to visit the municipal office for all their problems leading to a good working environment to the staff helping to increase their efficiency.

Lessons to be learnt from this initiative

- The drain clogging problem has reduced to 95% there by the sewage or storm water has continuous flow preventing from flooding and odour problem in spite the town is not provided with UGD system.
- Along with the street sweeping, the vegetation removal and bush cutting has to be taken up in a gang work system.
- Continuous awareness program is required for effective implementation of the SWM action plan.
- The Sanitary Health Inspectors should be empowered to levy penalty.
- Municipality, farmers, agencies and fertilizer companies should encourage use/ sale of compost made out of MSW for the sustainability of composting process.
- User charges have to be collected from the waste generator to make them to feel as one of the stake holder in the entire system.
- Proper technical assistance and guidance is required to avoid infructuous expenditures.

Towns to be targeted

This programme could be adopted by any of the ULBs in Karnataka since the conditions of the ULBs are similar to that prevailed earlier in Suryapet. Government of Karnataka extended extensive financial, technical, administrative and other supports for implementation of the Integrated Municipal Solid Waste Management as per State Policy. However, this could be implemented successfully only by the involvement of implementing authorities by involvement.