

# Sustainable Solid Waste Management in Chinnagundavelly Panchayat, Siddipet District

By [Saahas](#)

## Background

Hi! My name is Ankita. I am studying in 10th standard at Chinnagundavelly Zilla Parishad High School in Chinnagundavelly, Siddipet, Telangana. We were taught in school about the Swachh Bharat Mission that began in 2014 by Prime Minister Narendra Modi to promote the importance of cleanliness and sustainability everywhere in our country. However, nothing was happening in our village, all the streets were littered with garbage, and drains were clogged. Every morning I watched the residents, including my family handing over the mixed waste to the waste collector. The waste collectors further dumped the collected mixed waste in the dump yard which is located outside of our village. Lack of proper waste management



Figure 1: Student from Zilla Parishad High School

lead to an unhygienic and unhealthy environment. Even though the village had a resource recovery center (RRC for both wet and dry waste), the amount of waste getting recycled was very low as waste was not segregated or collected properly.

Chinnagundavelly, a gram panchayath located in Siddipet rural mandal in Telangana with a population of about 3250, is a small and peaceful area surrounded by fields and greenery. The village has all the necessary amenities such as a primary school, Zilla Parishad high school, primary health center, shops, park, temples, lake, etc. However, marring the beauty of the village is a dumpsite located on the outskirts of the village where the mixed waste of the village gets piled up. I often wondered why nobody was following proper waste segregation like how our teacher taught us.

However, in May 2023, things changed. That's when Saahas, an NGO, stepped into our village and shook things! In a matter of a few months, the streets are clean, recycling of wet

and dry waste is taking place, and all of us are also segregating our waste every single day, just like what I had learned in the school!

### About the project

Saahas, along with Dr. Shanthi Tummala, a sustainability expert, started work in 14 Gram panchayats (GPs) of Siddipet rural mandal in which Chinnagundavelly is one of the GPs. The **Project SWM Siddipet** covers 2 more mandals: Siddipet urban mandal and Chinnakodur mandal.

Saahas has been working in the waste management sector for more than 2 decades, promoting and implementing waste segregation, decentralised system of waste management, and other sustainable practices such as plastic reduction, etc. **Project SWM Siddipet** of Saahas is funded by CGI (<https://www.cgi.com/en>) under their CSR initiatives. The project, with an aim to establish sustainable waste management practices in the selected areas, began in May 2023. To date, it has made visible changes with the help of the residents and the village panchayat.

### Challenges and Addressal

#### ***Resistance from the public***

In the initial stage, the team members faced significant apathy from the residents in taking ownership of the waste they generated, most people said it is the job of the cleaning staff and Panchayat members to keep the village clean. But Saahas persisted, they conducted various sensitisation and awareness-building activities for various groups, households, students at the school, SHGs, etc. Some such activities were:

- Door-to-door awareness sessions on three-way segregation i.e., wet, dry, and domestic hazardous waste using flipcharts
- Focussed capacity building sessions conducted for different target groups such as Sarpanch, ward members, SHGs, Anganwadi, ASHA workers, and sanitary staff
- School events, rallies, essay writing, and drawing competitions for students at school on solid waste management (SWM)
- Spreading awareness through the distribution of pamphlets
- Rangoli competition for SHG women and villagers on SWM
- Street plays

Within just two months, there was a noticeable improvement in the segregation levels as the villagers began to comprehend the seriousness of the situation, understand the health impacts of clogged drains, blackspots on streets, littering, and also the limitation of dumping waste in the dump yard as that was now overflowing. Panchayat members also led by example as they saw people had begun to take interest.





Figure 2: Awareness activities- Rangoli competition and School rally on sustainable waste management

### **Streamlining the process**

It was important to establish a clear process for waste collection and processing which could be monitored systematically.

- To be able to track what was happening at the household level, whether they were giving waste regularly and if the waste was segregated, each house was numbered and a sticker with the number was put in every house.
- Each household was given a waste bag for storing the dry waste.
- A disciplined waste collection system was established. A mobiliser (animator) from the Saahas team goes along with the tractor which has a driver and a helper, monitors collection and segregation, and gives feedback if there is any issue. The wet waste is collected every Monday, Wednesday, Thursday, and Saturday whereas the dry waste is collected on Tuesday and Friday of every week. Domestic hazardous waste is collected every day from all households. A separate day collection of wet and dry waste is an essential way of reinforcing the message of source segregation on a daily basis.
- A village mobiliser was trained by the Saahas team on the process of daily collection and monitoring of household waste.
- Due to the lack of dustbins for the waste generated at public gatherings or events, the waste could not be collected or processed properly. Saahas provided two public bins for events, each with a capacity of 200 liters for wet and dry waste generated in public gatherings or events.
- The team provided bags for dry waste collection to waste collectors so that waste was not mixed in the tractor



*Figure 3: Door-to-door collection of waste from households*

- The waste collected is sent to the resource recovery center (RRC) where the wet waste is processed in a vermicomposting unit by the GP staff and the dry waste is sent to the Dry waste resource collection center of Siddipet district.
- Four pig farm owners have placed eight wet waste collection bins across the village, from which they collect wet waste daily for their piggeries.
- On an average, monthly 0.45 MT of dry waste and 10.5 MT of wet waste are collected in the GP.
- As of now, there is no proper end destination for domestic hazardous waste hence it is being buried underground.
- In all there are 6 people involved in the collection and processing of waste, 4 are involved in door-to-door collection and 2 of them work in the vermicomposting unit.



- By August 2023, the amount of waste going to the dumpsite was reduced to 47 % which was further reduced to 18% in December 2023.



Figure 4: Vermicomposting units

- Saahas team also provided portable fire extinguishers, and fire safety posters for improving safety as material in the dry waste collection units can easily catch fire.
- Saahas team also provided a weighing scale to the RRC for ensuring waste was weighed and data was recorded with discipline.

## IMPACT

Almost every household in the village segregates its waste today. Kids from school show active participation in any event related to SWM. The gram panchayat takes an active interest in monitoring waste collection in the village and overall management. The waste collectors have also started following the rules and they refuse to accept mixed waste from residents. The data of the segregated and collected waste, diesel consumed, attendance of waste collectors, etc. is recorded daily in the logbook placed in the gram panchayat office by the village mobilisers.

Due to this collective effort, there is reduced littering, reduction in clogging of drains, and improved visual cleanliness in the village apart from a significant reduction in waste being sent to the dump site.

The village of Chinnagundavelly has witnessed a significant transformation in just a few months.

Saahas would like to acknowledge the support of all villagers and also our funder CGI. They have been very encouraging and involved by providing important suggestions and ideas for the team on the ground. The aim is to make this a model village, whose example can be emulated by other surrounding villages.



*Figure 5: A street in Chinnagundavelly*