

# A Study of Rural Women's Solid Waste Management Practices in Suryapet District, Telangana State

Kollu Srinivas

Research Scholar, Department of Public Administration, University College of Arts and Social Sciences  
Osmania University, Hyderabad, Telangana, India  
Email: [srinivaskollu007\[at\]gmail.com](mailto:srinivaskollu007[at]gmail.com), Cell: 8008944045

**Abstract:** *To prevent the contamination of land, water, and air resources, as well as the spread of dangerous compounds, waste must be viewed as a potential resource rather than as something undesired and unwanted. By appropriately managing domestic solid waste, both environmental quality and human health can be improved. Women are principally responsible for the production and management of traditional habitats, household setting rehabilitation, the creation of new, more appropriate technologies for the construction of clean and healthy domestic environments, and domestic environmental protection and care. As a consequence, four rural villages in the Suryapet region were studied to analyze rural women's solid waste management techniques. Personal interviews with 200 rural women were conducted using pre-planned schedules. According to the findings of the survey, the vast majority of respondents were familiar with solid waste management (SWM) ideas and methods. The findings revealed a substantial link between rural women's comprehension of SWM and their involvement in SWM activities.*

**Keywords:** solid waste management, SWM, Central Pollution Control Board, CPCB, Swachh Bharat Mission, SBM, Swachh Bharat Abhiyan, SBA, Biodegradable Non-biodegradable 3R, Reduce, Reuse, Recycle, Vermicompost

## 1. Introduction

Trash management is the process of collecting, managing, and getting rid of solid waste that has been used up or is no longer needed. Unsanitary circumstances can result from the improper garbage disposal, which can also cause environmental contamination and harm to human health. India is mostly a rural nation. According to the 2011 Census, rural regions were home to 68.8% of the nation's population and 72.4% of its labour force. According to Central Pollution Control Board 2020 - 21 report, India generated 1,60,039.9 metric tonnes of trash daily. And also, Telangana state generated 10,308 metric tonnes of trash every day.

Increased output of solid waste in both urban and rural parts of the nation is a result of the country's population boom, technological advancements, and improved lifestyles of the populace. In contrast to urban solid waste, which contains more non-biodegradable elements like plastic and packaging, rural solid waste is biodegradable by nature. The improper disposal of garbage can have a negative impact on the environment and public health. People experienced malaria, chest pains, diarrhoea, and cholera as a result of the dumpsite's proximity to their communities (Va et al., 2019). The emission of gas from decaying rubbish, which intensifies the greenhouse gas impact and "global warming," is a serious environmental problem. (Alam, 2013)

India's expanding population makes trash management a challenge. The Swachh Bharat Mission (SBM), Swachh Bharat Abhiyan (SBA), or clean India mission was started by the Indian government to eradicate open defecation and improve solid waste management in urban and rural regions. because a successful waste management programme enhances the health and environment of the country.

### Resources and Procedures

The current study sought to investigate rural women's waste management techniques. The Swachh Bharat Abhiyan

government initiative, which focuses on providing solutions for the safe management of solid and liquid waste in the villages under inquiry, is the basis for the purposeful selection of the research region. The study's methodology was an exploratory research approach. In Telangana's Suryapet district's five villages, this study was carried out. Using the random sample approach, 250 rural households from five villages were chosen. The respondents' information was gathered through in-person interviews with the use of planned schedules, and it was then evaluated using standard statistical tools.

Rajkumar Joshi and Sirajuddin Ahmed (2016) reached this conclusion. The failure of MSWM was mostly due to a lack of awareness, insufficient technical understanding, insufficient money, unaccountability, and the execution of legislation and regulations (Municipal solid waste management). They also stated that in developing nations such as India, it is important to build decentralised solid waste processing facilities in large cities/towns, as well as a formal recycling industrial sector.

## 2. The Findings and Discussion

**Age:** As shown in Table 1, The bulk of respondents (79.60%) were under the age of below 35, with the middle age group (20.40%) coming in second.

**Education Qualifications:** The majority (31.6%) of all respondents had finished elementary school. This was followed by high schooling (29.6%), uneducated (18%), inter (14.8%), and a small (6%) number of those who had obtained their university degrees or above. According to Ramos (2016), understanding solid waste management was highly correlated with educational attainment in terms of trash storage and disposal.

**Relationship status:** Only 14.8% of the respondents were single, maybe because they are still young. 85.2% of the total number of responses were married women.

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**Household type:** According to table 1, the majority of respondents 72.8% belonged to nuclear families, while only a small minority 27.2% belonged to joint families.

**Profession:** Table 1 illustrates that 38% of respondents worked as agricultural labourers, followed by 32.8 respondents who worked in the agriculture sector, 9.6% of respondents who were tailors, and 19.6% of respondents who worked in other occupations such as small shops, vegetable markets, and Bangle stores.

**Rural women's solid waste management techniques:**

Solid waste management has grown to be crucial in rural regions as well. The Indian government is placing special emphasis on the Management of solid waste in rural parts in order to discard household trash in a way that is both scientifically sound and would improve people's quality of life. Since the Swachh Bharat project was launched in India, local Gram Panchayats (GPs) in the areas being studied have taken the initiative to spread knowledge about effective waste disposal techniques, garbage collection, and disposal. The Gram Panchayat members made the required measures to inform and raise awareness about waste management methods among rural women. Strict steps were implemented to collect dry and moist garbage from the household on a regular basis. Additionally, each family received a trashcan from the local government.

Table 2 clearly showed that the vast majority of respondents (70%, 88%) were aware of solid waste management methods and were knowledgeable about the separation of wet and dry garbage. Non - biodegradable rubbish was recognized by 43% of respondents, whereas biodegradable waste was recognized by 84%. Rural women knew about 3R to the extent of 62% of all respondents. (Reduce, Reuse, and Recycle.) The majority (88%) of respondents stated that biodegradable waste can be used as vermin compost, while half (52%) of respondents were aware that improper waste management had an impact on the environment, half (56.8%) were aware that improper waste management had an impact on health, and 44% were aware that proper waste management had an economic benefit.

The techniques used by rural women to manage solid waste were shown in table 3 below. Out of all responders, nearly everyone (94%) had a trash can at home. Because the Swachh Bharat Abhiyan program is being implemented in those communities, dustbins are required. The majority of survey participants (81%) segregated dry and moist garbage. While 86.4 percent of respondents prepared manure pits with wet waste, just a small percentage of respondents (26%) used kitchen waste for pet animals like calves, hens, etc.

Table 3 shows that the majority of respondents (71.2%) burnt household trash in their gardens (sanitary napkins, polythene coverings, leaves, etc.), while 83.2% recycled or repurposed household waste (such as using old buckets as dustbins). The information in the table shows that 68.2 percent of respondents fed their cattle kitchen scraps, and 49.2 percent employed bio - waste to make vermicompost.

**Table 1:** Respondents' general profiles, n=250

S. No	Traits of a description	Participants	Percent
<b>The responders' ages</b>			
01	18 to 35 Years	199	79.60
02	35 to 55 Years	51	20.40
<b>Respondents' educational levels</b>			
01	Uneducated	45	18
02	Elementary Schooling	79	31.6
03	High Schooling	74	29.6
04	Inter	37	14.8
05	Graduation and above	15	6
<b>Relationship status</b>			
01	Celibate	37	14.8
02	wedded	213	85.2
<b>Family structure</b>			
01	Single Household	182	72.8
02	The Combined household	68	27.2
<b>Profession</b>			
01	Agriculture	82	32.8
02	Agriculture Labour	95	38
03	Tailoring	24	9.6
04	Other Profession	49	19.6

**Table 2:** Solid waste management awareness among rural women, n=250

S. no	Assertion	Participants	Percent
01	Having Waste Management Knowledge	175	70
02	Separation of dry and wet waste	230	88
03	Biodegradable waste includes cooking garbage, agricultural waste, and cow manure.	210	84
04	Non - biodegradable garbage includes plastic, polythene, glass, metal, and rubber.	108	43
05	3R understanding (Reduce, Reuse, Recycle)	155	62
06	Vermicomposting should be done with biodegradable trash.	220	88
07	Understanding the environmental effect of solid waste	130	52
08	Aware of the health consequences of solid waste	142	56.8
09	Good waste management might result in financial rewards.	110	44

**Table 3:** Solid waste management methods of rural women (n=250).

S. no	Assertion	Participants	Percent
01	Respondents with dust beans	235	94
02	Waste separation into dry and wet waste	202	81
03	Pet excrement from the kitchen	65	26
04	Garbage in a compost pit	216	86.4
05	At - home garbage combustion	178	71.2
06	Non - biodegradable garbage reuse/recycling	208	83.2
07	Making compost with wet waste	123	49.2
08	Cattle feed made from kitchen garbage	170.5	68.2

**Table 4:** Investigates the link between rural women's knowledge of SWM and SWM behaviors

Sl. no	Waste management	Practicing/ R - Value
1	Awareness	.422**

\*\*At the 0.01 level, the correlation is significant (2 - tailed)

Table 4 demonstrates the considerable link between rural women's understanding of SWM and SWM behaviors. The findings showed a substantial link between SWM practices and knowledge, with an R - value of 422, and a p - value of 000. This suggests that respondents' attitudes toward solid waste management techniques were impacted by their degree of solid waste management knowledge. The findings of Laor et al. (2017) likewise indicated a favorable association between MSW knowledge and practices.

As a result, local leaders and residents should be concerned with building favorable social and political contexts in order to raise awareness about environmental preservation. The management of solid waste is the primary difficulty in finding a balance between the environment and development. The majority of the respondents belonged to a youthful age group and was single, according to a detailed review of the study's findings. Because the Swachh Bharat Abhiyan program was being implemented in the villages, the majority of respondents were knowledgeable about solid waste management. The responders who demonstrated strong knowledge also demonstrated strong practice. The study's findings indicated that there is a strong correlation between SWM practices and knowledge.

### 3. Recommendations

- To maintain home waste management in rural regions, ongoing monitoring and awareness campaigns must be performed.
- By implementing creative waste management programs, employment possibilities may be created for rural impoverished people.

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