

Fostering Women for a Cleaner Tomorrow: An Intervention on Environmental Awareness and Waste Management Practices

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Abstract

In many rural areas, waste is often thrown in open spaces, burnt, or dumped without proper planning, which creates an unhealthy environment and increases the risk of diseases. Keeping in mind these issues an action project was carried out in Shuklipura village of Vadodara district with the aim of improving waste management practices and spreading awareness among the women. In total 40 women from the village participated in the project. The project was implemented in three phases that is planning, implementation, and evaluation. Various participating activities were planned and implemented to promote waste segregation and its management at household level among the women. Over time, small but noticeable changes were seen in the village. Some households started practicing waste segregation, and there was a slight reduction in open dumping and burning of waste. The project showed that change takes time, but continuous efforts can bring improvement.

Keywords: Waste Segregation, Waste Management, Women, Environment

Introduction

Waste management is a crucial aspect of environmental protection and public health. It involves a series of activities aimed at reducing the harmful effects of waste on the environment, human health, and aesthetics. With the growing population and rapid industrialization, the amount of waste produced has increased significantly. Proper waste management helps minimize pollution, conserve natural resources, and promote sustainable development. It includes various methods such as recycling, composting, incineration, and landfilling, depending on the type and nature of the waste. Effective waste management is essential for maintaining a clean and healthy environment for current and future generations.

It involves the collection, transportation, processing, recycling, and disposal of waste materials generated by human activities. There are various waste management practices used to handle different types of waste, including solid and liquid waste.

Proper waste management is essential for protecting the environment and public health. Improper disposal of waste can lead to pollution of air, water, and soil, which can have harmful effects on human health and wildlife. In addition, landfills can produce methane gas, a potent greenhouse gas that contributes to climate change. (Gupta, 2025)

Solid waste management is a universal issue, and it affects every person in the world. With the rates at which urbanization is occurring, the World Bank estimates that waste generation will increase from 2.01 billion tonnes in 2016 to 3.40 billion tonnes in 2050. (World Bank, 2026) 33% of waste is mismanaged through open dumping and burning. The situation is far worse in low income countries, where over 90% waste is either dumped openly or is burned. Studies indicate that waste generation is increasing globally due to changing lifestyles, rising income levels, and demand for convenience. According to global estimates, the world generates over 2 billion tonnes of municipal solid waste annually, with an average of about 0.74 kg per person per day. This amount is expected to grow significantly in the coming years. Solid waste refers to unwanted or useless solid materials generated from human activities in residential, industrial, and commercial areas (Statista, 2026).

India generates around 62 million tonnes of solid waste annually. Of this, approximately 70% (about 43 million tonnes) is collected, while only around 12 million tonnes is treated, and the remaining 31 million tonnes is disposed of in landfills or open dumping sites. Furthermore, urban municipal solid waste generation is projected to increase to 165 million tonnes per year by 2030 due to rapid urbanization and changing consumption patterns (Statista, 2026).

During the recent past, the management of solid waste has received considerable attention from the Central and State Governments and local (municipal) authorities in India. The central Government of India has launched many schemes from time to time to eradicate the problem of open defecation completely from rural areas. These schemes include the Central Rural Sanitation Program in 1986, Total Sanitation Campaign in 1999, Nirmal Bharat Abhiyan in 2012 and Swachh Bharat Abhiyan in 2014. The primary focus of Swachh Bharat Mission (Gramin) is to completely eliminate open defecation from the villages. It focuses on improving waste management systems, promoting source segregation, and encouraging waste processing.

In rural areas, proper waste management isn't just about keeping things tidy; it's about safeguarding people's health, protecting the environment, and helping communities grow stronger. Without organized waste collection and disposal, trash especially plastics and organic waste often ends up dumped in open fields or burned, which pollutes soil, water, and air and can lead to diseases affecting both humans and livestock. When waste is managed responsibly through segregation, composting, recycling, or converting organic waste into compost or biogas it not only reduces pollution and health risks but also creates income opportunities. For example, transforming organic waste into compost provides free fertilizer for farming, cuts costs, and can even generate income by selling compost.

Community-driven initiatives, like engaging self-help groups or local volunteers, help build awareness, dignity, and jobs, empowering villagers to be part of the solution. All in all, investing in rural waste management brings cleaner surroundings, healthier lives, stronger local economies, and greater resilience, meaning villages can thrive, not just survive.

Looking at the above discussion, an action project was undertaken with the goal of promoting the development of the targeted beneficiaries. This project focuses on engaging women in adopting new practices of waste management.

Objectives of the project

1. To assess the current waste segregation and disposal practices among rural women in Shuklipura village.

2. To create awareness among the women of the Shuklipura village about the need for adopting sustainable waste management practices.
3. To promote waste management practices through various activities among women of Shuklipura village.
4. To collect reactions from women regarding the project and the project worker.

Methodology

Planning of the activity helps in the execution of the project, and it answers the major questions as to where, when, who, and how regarding the project. The project was undertaken to train women for promoting sustainable waste management practices in Shuklipura village of Vadodara district was designed in a simple, practical, and participatory way. To complete the project systematically and successfully, the steps that were followed during the project are discussed in this chapter under the following headings.

Planning of the Project

The project worker approached the Aruna Kishore Foundation to work with their group. The foundation was chosen after carefully considering its long-standing presence and active engagement in both rural and urban areas. The project worker, in collaboration with the Aruna Kishore Foundation, visited Shuklipura village. Meetings were held with women in the village to discuss the initiative and its potential impact. A total of 40 beneficiaries expressed their enthusiasm and commitment to participate in the project. To understand the prior awareness and practices of the women, a pre-survey was conducted. The survey highlights that women in Shuklipura village possess a strong potential to become agents of change in solid waste management, provided their existing knowledge gaps are addressed. Capacity-building programmes, practical demonstrations, culturally sensitive awareness campaigns, and basic infrastructural support are essential to transform traditional practices into sustainable and environmentally responsible waste management behaviours. Keeping in mind the findings of the pre-survey, needs, and interests of the women, and after discussion with Aruna Kishore Foundation, the content was finalized for the project.

Implementation of the Project

It was planned to conduct the project in Shuklipura village of Vadodara district. The awareness sessions were planned from 1:30PM to 5 PM as the timings were convenient for the target group. The project worker planned to conduct 40-day awareness sessions in Shuklipura village.

To promote sustainable waste management practices among the women, various activities were planned and executed as follows under the project.

- Illustrative Talk
- Awareness Rally
- Clean street Drive
- Collective cleanliness Pledge
- Best out of Waste
- Poster-making activity
- Demonstration on Waste Segregation
- Demonstration on Compost Pit
- Revision through interactive Games

In order to ensure that the villagers were actually applying the techniques taught during the sessions in their everyday lives, follow-up was a crucial component of this project. Following the conclusion of the awareness campaigns and demonstrations, Shuklipura village households were visited on a regular basis. During these visits, the project worker checked to see if the women were keeping their homes clean and segregating their waste.

The participants were further motivated by the follow-up visits. Others were inspired to follow suit when the project worker expressed gratitude to the households that were keeping their spaces tidy and handling waste appropriately. The villagers developed a sense of accountability as a result of a few encouraging comments. In certain instances, women inspired their neighbours and shared their experiences, which aided in the practices' dissemination throughout the neighbourhood.

Evaluation of the Project

The reactions of the women were collected through a reaction tool for the evaluation of the project. The data revealed that out of the total 39 women, the largest proportion, twenty-five percent (25.6%), belongs to the 20–30 years age group. The majority of women (64.1%) have completed primary education, indicating that most participants possess basic literacy. The majority of them (97.4%) reported that they had not received any training earlier on waste management. Out of 39 women, 27 (69.2%) participated to gain knowledge and learn about waste management, while 12 (30.8%) participated to make the village waste-free.

The reactions of the participants show that the project was implemented successfully and was well accepted by the members. All the women (100%) reported that the objectives of the project were clear, the planning was appropriate, the project started on time, and the training methods were easy to understand. A high majority (97.4%) of women said that the objectives of the waste management project, IEC materials, and cleanliness habits were clearly understood. A high majority (94.9%) of the women felt that the classroom management, village cooperation, and explanation of compost making were appropriate.

Conclusion & Recommendations

The action project on promoting sustainable waste management practices in Shuklipura village of Vadodara district clearly shows that small, consistent efforts at the community level can bring meaningful change. At the beginning of the project, it was observed that most households did not have proper knowledge about waste segregation, composting, or the harmful effects of improper waste disposal. Waste was often mixed and dumped in open areas, leading to unhygienic conditions, foul smells, and potential health risks. There was also a lack of organized systems and awareness among villagers, especially women, who play a key role in household waste handling.

Through continuous interaction, awareness sessions, demonstrations, and activities conducted in different fadiyas, the project was able to gradually build understanding and participation among the villagers. Since it was difficult to gather all women at one place, conducting the same activities multiple times in different locations helped in reaching more participants and ensured inclusivity. Rapport building played a very important role in this process. By talking to women in their own space, understanding their daily routines, and listening to their experiences, trust was developed. This made it easier for them to openly share their practices and accept new ideas.

The demonstrations of wet and dry waste segregation using green and blue bins helped the villagers

understand the concept in a practical way. Many participants shared that earlier, they were not aware that waste could be separated and managed at home. After the sessions, they started identifying different types of waste and showed willingness to practice segregation. Similarly, the compost pit demonstration helped them understand how kitchen waste can be converted into useful manure, which can be used in kitchen gardens. This not only reduces waste but also supports sustainable living.

Activities like cleanliness drives, poster making, cloth bag and paper bag preparation, and waste-to-best activities using plastic bottles were very effective in engaging the community. These activities made learning more interactive and enjoyable, especially for children and women. The idea of reusing plastic bottles as planters encouraged people to think creatively about waste and see it as a resource rather than something useless. The collective cleanliness pledge also created a sense of responsibility among the villagers towards maintaining a clean environment.

From the feedback collected, it was clear that most participants found the project useful and easy to understand. A large percentage agreed that the objectives were clear, the planning was appropriate, and the training methods were simple. This indicates that the approach used in the project was suitable for the community. However, a small number of participants were still unsure about certain practices, which shows that continuous follow-up and reinforcement are needed.

One of the important outcomes of the project was the change in attitude of the villagers. Earlier, waste management was not considered an important issue, but after the project, people started realizing its impact on health and the environment. Women, in particular, showed interest in adopting better practices at home. This is a positive sign because women are the main managers of household waste, and their involvement can lead to long-term change.

The project also highlighted some challenges. Lack of proper infrastructure, irregular waste collection services, and limited resources can affect the sustainability of these practices. In some cases, old habits and resistance to change were also seen. These challenges indicate that, along with awareness, there is a need for support from local authorities and continuous motivation for the community.

Overall, the project successfully created awareness and initiated behavioural change in Shuklipura village. It demonstrated that community-based approaches, repeated engagement, and practical demonstrations are effective in promoting sustainable waste management practices. The involvement of women and children further strengthened the impact of the project.

For long-term success, it is important that these practices are continued and supported through regular follow-up, involvement of local leaders, and integration with government schemes. If sustained properly, this initiative can serve as a model for other villages and contribute to a cleaner and healthier environment. The expected outcomes of the action project on promoting sustainable waste management practices in Shuklipura village of Vadodara district are increased awareness among villagers about proper waste segregation and disposal, regular use of separate bins for dry and wet waste, reduction in open dumping and burning of waste, and improved cleanliness in the village surroundings. Women and households are expected to adopt practices like composting kitchen waste and reducing the use of plastic. The project also helps in building responsible behaviour among community members, leading to a cleaner, healthier environment and long-term sustainable waste management practices in the village.

Future Recommendation

- A number of recommendations can be made to enhance subsequent waste management initiatives based on the project's experience. First, local authorities such as the village panchayat and sanitation

workers should be more involved. Their assistance can aid in setting up appropriate waste collection systems and supplying the facilities that are required. People are more inclined to participate and feel more confident when local leaders are involved.

- Secondly, future initiatives should guarantee the availability of fundamental resources. Villagers may find it simpler to adopt new habits if they have access to separate containers for dry and wet waste, composting supplies, and other equipment. Connecting the project to government initiatives can also help. According to the Swachh Bharat Mission Gramin, better outcomes come from combining awareness with the right infrastructure.
- Future initiatives should also employ straightforward and useful teaching strategies. There should be more activities, visual aids, and demonstrations rather than just information. For women and children in particular, this makes learning simpler and more engaging. Including kids and young people can also aid in raising awareness in families.
- Participation can also be increased by offering incentives and praise. Rewarding homes that keep their spaces tidy or separate their waste can inspire others to do the same. Small prizes or public acknowledgment at village gatherings can have a beneficial effect and foster a sense of community. Place dustbin in every fadiya and public area of the village, and give them to everyone for proper disposal of waste.

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