



## Awareness About Plastic-Free Environment Among Rural People in Jamgaon (M) Village of Durg District, Chhattisgarh

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Plastic pollution has become one of the most pressing environmental challenges worldwide due to the excessive use of single-use plastics and poor waste management practices. Rural communities are increasingly facing environmental degradation caused by improper disposal of plastic waste. The present study assessed awareness regarding a plastic-free environment among residents of Jamgaon (M) Village, Durg District, Chhattisgarh, during the National Service Scheme (NSS) Special Camp. A structured questionnaire was administered to 50 respondents selected through simple random sampling. The study analysed awareness levels, plastic consumption patterns, waste disposal practices, knowledge of government initiatives, and willingness to adopt environmentally friendly alternatives. The findings revealed that most respondents were aware of the harmful effects of plastic pollution; however, the widespread use of single-use plastics continued due to convenience and affordability. Limited awareness regarding waste segregation and recycling practices was observed. The study highlights the need for continuous awareness campaigns, improved waste management infrastructure, and active community participation. Educational institutions and NSS volunteers can play a significant role in promoting sustainable environmental practices and achieving the goal of a plastic-free rural society.

**Keywords:** Plastic pollution, Plastic-free environment, National Service Scheme, Rural awareness, Sustainable development, Waste management.

### Introduction

Plastic has become an indispensable material because of its durability, low production cost, and versatility. It is extensively used in packaging, agriculture, healthcare, transportation, and domestic applications. However, the continuous increase in plastic consumption has resulted in significant environmental pollution. Plastic materials remain in the environment for several decades because they are non-biodegradable, causing contamination of soil and water resources while adversely affecting biodiversity and human health. India has implemented several initiatives, including the Plastic Waste Management Rules (2016), the nationwide ban on selected single-use plastic items, the Swachh Bharat Mission, and Mission LiFE (Lifestyle for Environment), to reduce plastic pollution and encourage sustainable living. Despite these efforts, improper disposal of plastic waste remains a major concern, particularly in rural areas where waste management facilities are limited. Jamgaon (M) Village of Durg District represents a typical rural community experiencing increased plastic consumption due to changing lifestyles and the availability of packaged consumer goods. Understanding public awareness and behavioural practices is therefore essential for designing effective environmental education programmes and promoting sustainable waste management.

## Objectives

- The specific objectives of the study were:
- To assess awareness regarding plastic pollution among rural residents. To evaluate the use of single-use plastic products.
- To study household plastic waste disposal and segregation practices.
- To assess awareness regarding Government regulations on plastic waste management. To encourage the adoption of reusable alternatives such as cloth and jute bags.
- To promote community participation in achieving a plastic-free environment.

## Materials and Methods

The study was conducted during the National Service Scheme (NSS) Special Camp held from 16 March to 22 March 2026 in Jamgaon (M) Village, Durg District, Chhattisgarh. A total of 50 respondents representing different occupational groups, including farmers, shopkeepers, students, homemakers, and other villagers, were selected using a simple random sampling technique. Primary data were collected through personal interviews using a structured and pre-tested questionnaire after obtaining informed consent. The questionnaire included questions related to awareness of plastic pollution, use of plastic products, waste segregation, recycling practices, awareness of government initiatives, and willingness to reduce plastic consumption. The collected data were compiled and analysed using descriptive statistics such as frequency and percentage.

## Results and Discussion

The survey revealed that 88% of respondents were aware of the concept of a plastic-free environment, indicating satisfactory environmental awareness among villagers. However, 78% continued to use single-use plastic products because of convenience and easy availability. Only 38% of respondents regularly used cloth or jute bags while shopping, whereas the majority still depended on plastic carry bags. Waste segregation practices were observed among only 36% of respondents, suggesting limited knowledge regarding scientific waste management. Furthermore, only 46% of respondents were aware of the Government's ban on selected single-use plastic products, indicating the need for greater dissemination of environmental policies at the village level. Nevertheless, 72% of respondents expressed willingness to reduce plastic consumption and adopt eco-friendly alternatives, demonstrating positive community attitudes towards environmental conservation. These findings are consistent with previous research, which indicates that awareness alone is insufficient unless accompanied by behavioural change, community participation, and effective waste management infrastructure. Continuous awareness campaigns and active involvement of educational institutions and local authorities are essential for reducing plastic pollution in rural communities.

## Conclusion

The present study concludes that awareness regarding plastic pollution among rural residents of Jamgaon (M) Village is encouraging; however, practical implementation of environmentally friendly practices remains inadequate. The continued dependence on single-use plastics, poor waste segregation, and limited recycling practices highlight the need for stronger environmental education and improved waste management systems. The National Service Scheme awareness programme successfully motivated villagers to adopt responsible environmental behaviour and promoted the use of reusable alternatives such as cloth and jute bags. Sustainable environmental conservation requires collaborative efforts involving educational institutions, Gram Panchayats, government agencies, and local communities. Strengthening public awareness, improving waste collection systems, encouraging recycling, and ensuring effective implementation of plastic waste management policies will significantly contribute towards achieving a cleaner and plastic-free rural environment.