

“Awareness and Perception of people towards the household solid waste disposal: Nainital Town, Uttarakhand, India”

Dr. Deepak Paliwal
Sr. Assistant Professor (Sociology)
Dept. of Sociology
School of Social Sciences,
Uttarakhand Open University,
Haldwani, Uttarakhand

ABSTRACT

Introduction: This study mainly focuses the people's awareness and perception about the solid waste disposal. The survey method and possibly covering the socio-economic, demographic and environmental variables that are largely determined the behavioral pattern of household solid waste management. Objectives: a) to simplify the socio-economic and demographic characteristics of respondent's participation in solid waste disposal, b) to explain the public awareness towards to household waste disposal, c) to analyze the attitude of people regarding household solid waste disposal. Methodology: The survey is used for easy interpretation and interrelationship between variables. Conclusion: More than half of them are using small dustbin to put household wastes. One forth, half, and one fourth of them are disposing waste daily once, twice and thrice respectively. They are disposing three and six kilograms of bio-degradable and non-degradable waste/week. Three fourth of the respondents are opinioned that they are satisfied with the works of municipality sweepers.

INTRODUCTION

Increasing population, urbanization, industrialization and changing consumption patterns are resulting in the generation of increasing amounts of solid waste and diversification of the type of the solid waste generated [1]. Solid waste is the most visible environmental problem among many in urban areas [2]. Increased solid waste generation creates more environmental problems [3], as many cities are not able to manage it due to institutional, regulatory, financial, technical, and public participation shortcomings [4]. There is a need to practice integrated solid waste management approach such as: Incorporation of more environmental and economic friendly concepts of source separation; recovery of waste; legitimization of the informal systems; partial privatization and public participation. Although some governments have formulated policies for environmental protection, they were only implemented in the national capital cities. In many urban areas, open dumping is still considered the most popular method of solid waste disposal. Adverse environmental impacts from improper solid waste management are rooted in inadequate collection, recovery of recyclable and disposal of wastes. These impacts are also due to inappropriate location, design, operation, or maintenance of dumps and landfills



STUDY AREA

Nainital, also known as “Lake City of India” is famous for its lakes, green hills and astounding peaks that add to its magical appeal. It is also famous for tens of temples and pilgrimage points and legends and stories



associated with them. Nainital is 34 Km from the nearest railway station Kathgodam, which is the terminus of North Eastern Railway. It is 304 km from Delhi, capital of India. According to the District Gazetteer, Nainital is situated at 29° 24' north latitude and 79°28' east longitude, in a valley of the Gagar range running east and west, which is bounded on the north by the peak of China, which rises to a height of 8,568 feet, continued by the Snow View and the Sher Ka Danda to the eastern extremity, where the ridge descends almost to the level of the lake. On the west the rugged hill of Deopatha rises to a height of 7,987 feet, and on the south Ayaarpata attains an elevation of 7,461 feet diminishing gradually towards the east. The town has the famous lake to which it owes its name. The surface of this lake has an elevation of 1,935 m above sea level and its maximum length & breadth is 1,434 m & 463 m respectively. The depth of this lake is said to range between a maximum 28 metres and a minimum of 6 metres. The nucleus of exquisite beauty of Nainital is beautiful lake. In the day, mirrored in its waters stand seven proud hills, dotted with pretty cottages and villas. The north end of lake is called Mallital while the southern one is called Tallital which have a bridge (Danth popularly named) having Gandhiji's statue and post office on its sides. Nainital is a Nagar Palika Parishad city in district of Nainital, Uttarakhand. The city is divided into 13 wards for which members are elected every 5 years. According to Census India 2011, the Nainital Nagar Palika Parishad has population of 41,377 of which 21,648 are males while 19,729 are females by. Population of Children with age of 06 is 3946 which is 9.54 % of total population of Nainital (NPP). Literacy rate of Nainital city is 92.93 % higher than state average of 78.82 %. In Nainital, Male literacy is around 96.09 % while female literacy rate is 89.47 %. It's one of the most popular tourist places all over India where groups of tourists visit throughout the year. The peak season of tourism is the summer i.e. from March to June. During summer, the floating population of Nainital city crosses 5lacs. Due to limited resources and vast floating population, Nainital has to deal with a number of problems throughout the year. Garbage production and its management is one such problem that has become a menace. Nainital Nagar Palika Parishad has total administration over 9,329 houses to which it provides basic amenities like water and sewerage.



This Nainital Nagar Palika Parishad is entrusted with the responsibility of dealing with the menace of garbage management. In India, improper garbage disposal is a recurring environment related problem which plagues almost every city. Firsthand experience of the group members in Nainital also reveals the similar garbage management

problem and the inefficiency of Nainital Nagar Palika Parishad to deal with it. It has kept large iron containers as garbage bins at various points within the city limits which are being used by the local residents and tourists as well. The garbage from these bins is supposed to be removed and disposed off periodically by the Nainital Nagar Palika Parishad in order to maintain health, hygiene and cleanliness in the city. But the experience tells a different scenario altogether. One of the two such garbage containers kept at the UGC-HRDC gate, is overloaded with garbage and it has been knocked down by some passing vehicle or tumbled down sideways by some animal in search of some food material. As a result of which its garbage is spilled all around. This gives appalling look to the gate. None of the Nainital Nagar Palika Parishad worker had turned up even after repeated complaints from the UGC-HRDC officials. More or less similar scenes are common at other sites where these garbage containers have been installed. This is a dangerous situation for the health of citizens as well as for the buzzing tourism of the city. The indisposed garbage becomes bed for the harmful microorganisms those can spread a number of diseases and houses a number of pests. It also serves as the breeding ground for a number of insects and parasites. The scenes of litter spread around a garbage container and obnoxious smell also poses serious threat to aesthetic beauty of this city and must be immediately redressed. This mismanagement of garbage disposal system, agency's failure to cope up with the problem of garbage has led our group towards a sincere attempt to find the root cause of the problem and suggest its possible solutions.

Objectives of the Study

The main objectives of the present study are

- To know the socio-economic and demographic characteristics of respondent's participation in solid waste disposal.
- To understand the public awareness towards the household waste disposal.
- To analyze the perception of people regarding household solid waste disposal.

Major Findings of the Study

Socio-Economic and Living Conditions

10 males and 10 females (20) respondents were observed for the present study and their age was between 18 and 60 years. They are living as single and married. Their family sizes were small to medium and they are living in joint family and nuclear family. Majority of them are Hindus and the remaining are Christians and Muslims. The respondent's educational statuses are illiterate, primary, higher secondary and graduate level. They are engaging in business activities, daily wage laborer, employees in government service. The respondents are living in own and rental house, the majority of them are having bath room and toilet facilities and the houses are electrified, having television, radio, iron box, gas cylinder and having drainage facilities respondents are having municipal water pipe connection.

Household Waste

The majority of the respondents are using small dust bins at their home and the remaining are not using like that. The respondents are disposing vegetable waste per week is about three and six kilograms and more than six kilograms. Plastic waste disposal per week is also about three and six kilograms and more than six kilograms.



Almost all the respondents are revealed that their having municipal dust bins in their street .The respondent are also informed that the distance between their home and municipal dust bin location is less than hundred meters, two hundred meters. Half of the respondent's houses are located thousand meters away from the waste dumping place. They also expressed that their streets

dustbins are cleared or transported daily. The types of household solid waste disposal items are food items, vegetables, plastics, garden wastes, batteries, electronic goods, cloths and glasses. The respondents are informed that they are disposing household solid waste is two kilograms per day and the remaining are disposing more than two kilograms. About 10 per cent of the respondents are identifying wastes and only few of them are having separate waste bins for degradable and non-degradable and they are segregating wastes. Three fourth of the respondents are opinioned that they are satisfied with the works of municipality sweepers. Most of respondents are not aware of solid waste disposal and management of solid waste. So the respondents are willing to participate awareness program because three fourth of them are informed that they are facing solid waste problem in their localities especially paper and plastics are spreading over the surface.

CONCLUSION

More than half of them are using small dustbin to put household wastes. One forth, half, and one forth of them are disposing waste daily once, twice and thrice respectively. They are disposing three and six kilograms of biodegradable and non-degradable waste/week. The types of household solid waste disposal items are food items, vegetables, dry leaves, plastics, garden wastes, batteries, electronic goods, cloths rubbers and glasses. The locations of municipal dustbins are accessible to ninety per cent of the people but the dustbins are not cleared and transformed properly by the municipality. Some of them are putting their waste along the roadside, street corners, vacant places, in front of unused houses. These places are got fire sometimes and there is a chance of getting fire at large

level. These wastes are also spreads the surroundings are looking very awkwardly. Three fourth of the respondents are opinioned that they are satisfied with the works of municipality sweepers. Most of respondents are not aware of solid waste disposal and management of solid waste.

SUGGESTIONS

The following suggestions have been put forward to mitigate the problem of solid waste management with the view of William T. Cahill “We can no longer throw our waste away because there is no ‘**away**’”.

1. The segregation of the waste should be done at source as it was done at the time of ‘Mission Butterfly’. Two separate small bins should be supplied to each and every house and other establishments for disposing biodegradable and non-biodegradable waste separately and the same should be lifted by separate vehicles.
2. Presently dustbins are placed on ground in various locations in the entire town but practically, lots of waste was observed in the vicinity of the dustbins. Smart dustbins with large size having hydraulic system can be placed in various locations. It will save space and will have more capacity for waste storage.
3. Presently the Nagar Palika Parishad, Nainital is dumping all the waste together near Hanumangarhi. The authority should establish a composting plant for biodegradable waste and non-biodegradable waste may be sent to the ‘**Nivaran**’ recycling plant already established in 2006, in Gola Rokadh, near Indra Nagar Gali, Haldwani which work in Public Private Partnership mode. The plant recycles plastic and makes plastic granules and pipes .
4. The vermiculture techniques can be used in the composting plant. The composting plant may be a source of revenue for the Nagar Palika Parishad, Nainital.
5. The Nagar Palika Parishad, Nainital should involve some NGOs for awareness campaign. The Nagar Palika Parishad should prepare and sign MOU with the NGO(s). The NGO(s) will work for awareness of the people at Nainital as well as of the tourists, which will ultimately develop the people's participation in the Waste Management system at Nainital.