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Geography

ENVIRONMENTAL SOLID WASTE MANAGEMENT AND DISPOSAL ISSUES AT DANKAUR VILLAGE GAUTAM BHUD NAGAR DISTRICT UTTAR PRADESH INDIA

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ABSTRACT The difficulties of solid waste disposal and management in Dankaur, were investigated in this study. A total of 250 respondents from the research area were given a set of questionnaires. The information gathered was evaluated in a descriptive manner. Meal wastes, polythene bags, and polystyrene food packs formed the greatest component of trash in the commercial area, according to the findings. Paper debris, plastic/rubber bottles, leaves, and metal cans were among the other types of solid waste generated in the study's other areas. According to the study, 43.81 percent of respondents store their waste in waste bins/receptacles, while 35.33 percent dump their trash on the ground. The findings revealed that the institution's solid waste receptacles were insufficient. The data also found that the polytechnic sanitation staff collected solid garbage on a regular basis. In general, 54.45 percent of respondents were pleased with the area sanitation unit's performance in handling solid waste at the university. The key issues in solid waste management have been recognized as insufficient employees, a lack of solid waste vehicles, and a lack of financing. The report advised that the polytechnic administration hire more people, purchase solid waste vehicles, and sufficiently fund the sanitation section to ensure effective solid waste management. Furthermore, the school should launch public awareness programmed about ecologically acceptable solid waste disposal methods to prevent indiscriminate solid trash dumping on grounds.

KEYWORDS :

INTRODUCTION

One of the most pressing issues confronting most Indian cities today is how to deal with the growing volume of solid trash generated everyday by the population. In Indian cities, municipal solid trash is one of the most obvious and important environmental issues large garbage heaps dot most carriageways, streets, and neighboring areas, obliterating the landscape of the environment. These wastes degrade the visual value of our cities by taking over portions of roadways, emit terrible odors that are harmful to human health, and serve as breeding grounds for pathogenic organisms [2]. Waste that is uncontrolled or discarded illegally can be hazardous to human health and cause environmental deterioration [3] [4,] the production of municipal solid trash by homes, educational institutions, and commercial institutions has been steadily increasing. They discovered that indiscriminate municipal garbage disposal is becoming increasingly common in India's major cities. Municipal garbage generators in India, according to them, include households, commercial, industrial, agricultural, and institutional enterprises. The high volume of garbage generated every day in India's urban centers is undoubtedly due to the increasing pace of urbanization, rapid economic expansion, and the rise in community living standards. The amount and rate of solid waste produced in a city is mostly determined by the population, industrialization degree, socioeconomic status, and types of commercial operations.

If allowed unchecked, indiscriminate dumping of solid waste can have major repercussions, notably in terms of human health and the environment. According to the World Health Organization (WHO, 2003), 5.2 million people, including 4 million children, die each year as a result of diseases caused by inappropriate sewage and solid waste disposal. As a result, appropriately managing urban garbage is an obvious strategy to reduce the problem of environmentally-induced diseases in India. Indian cities generate solid trash at an alarming rate, with waste volumes frequently exceeding the capacity of the city system to absorb or process [7]. Although it has been suggested that solid trash is an unofficial measure of prosperity [8], it would be incorrect to conclude that the volume of solid garbage seen in today's cities is an acceptable sign of prosperity. It should be viewed as a measure of the extent to which public authorities have failed to deal with the unavoidable by-products of progress. Only by drawing a line between the volume of solid waste that is really generated and the rate at which it is evacuated can the degree of effectiveness of any solid waste management strategy be accurately measured. Municipal waste management is defined [4] as the collective process of waste sorting, storage, collection, transportation, processing, resource recovery, recycling, and disposal. Several efforts have been made in India to manage solid wastes, including the development of waste management and sanitation agencies, as well as the supply of trash management vehicles and infrastructure, but these efforts have not translated into effective and efficient solid waste management.

Trash management authorities continue to face a serious problem in the form of indiscriminate dumping of solid waste in undesignated places.

METHODOLOGY

The research was primarily a descriptive survey aimed at examining the issues of solid waste disposal and management at Dankaur. The study relied on both primary and secondary data sources. Personal interviews and a questionnaire were used as primary sources. A structured interview was conducted with members of staff involved in the collection, transportation, and disposal of solid trash on a daily basis, while a questionnaire was distributed to responses from the institution's personnel and students. A total of 260 questionnaires were distributed, with 232 being returned, providing an 89.2 percent response rate. As shown in Table 1, the questionnaire was administered. The information gathered was then evaluated in a descriptive manner. All of the study's locations were identified through purposeful sampling. The individual buildings within each location were selected using a systematic selection technique, whereas the questionnaire was administered using a basic random sample technique on the actual respondents for the study. The secondary data collecting sources were primarily published resources like textbooks and journals, from which relevant literatures were sourced.

Table 1: Administration Of Questionnaire In Dankaur Area.

Location	Questionnaire distribution	Questionnaire collected	Percentage %
Pont a	45	40	92
Point b	45	40	84
Point c	40	34	90
Point d	40	38	95
Point e	40	34	85
Point f	40	36	90
Point g	250	222	80.2

RESULT AND DISCUSSION

The various wastes generated from all of the study's locations, including the market area, Central Administration area, Environmental Complex area, Engineering area, Consultancy, were individually collected and analyzed to determine the characterization of such wastes from the various locations. Food wastes, polythene bags, and polystyrene food packs represented the major components of solid wastes in the commercial area, according to the findings. This discovery backs up prior research [12]. Food waste accounted for the

biggest amount of trash created from commercial area in. Plastic/rubber bottles, ash debris, and metal cans were among the others. Paper debris, polythene bags, and leaves made up the majority of solid waste in all of the other areas, while metal cans and plastic/rubber bottles made up a minor amount. Some of the solid wastes collected in garbage receptacles are shown in Figure 1.

According to the study's findings, 43.81 percent of respondents kept their rubbish in waste containers before having it disposed of by the Ramat Gautam buddha sanitation workers, whereas According to the statistics, 9.05 percent of respondents burn their garbage, 2.59 percent throw it down drains, and 5.17 percent bury it. wastes. Because the Institution has a large number of people, they freely drop their faces on surfaces (as shown in Figure 2), such surfaces Pathogenic organisms may breed in certain areas, making them breeding grounds. a fertile ground for disease transmission. According to Table 3, 69.83 percent of respondents agreed that solid waste receptacles were available for solid waste disposal inside the Dankaur area (see Figure 3). However, 76.72 percent of respondents said the polytechnic's distribution of solid waste receptacles was insufficient.

The findings also demonstrate that Dankaur sanitation employees collected solid wastes on a regular basis from all receptacles for transport to trash dump sites. 55.6 percent of the total replies are in this category. This explains why majority of the receptacles were empty during the researchers' field inspection (See Figure 4). In terms of the area sanitation unit's (SU) overall performance in terms of solid waste management, 56.47 percent of respondents agreed that the SU's performance was satisfactory. In contrast This could be attributed to variances in population numbers, which could explain the difference in the amount of waste generated per day in the two area.

Table 2: Mode Of Solid Waste Disposal Habits Among Respondents.

S/No	Mode of disposal	Response	Percentage
1	Burning	21	9.05
2	Storing in waste bins	104	44.80
3	Open space	89	38.36
4	Dumping drains	6	2.59
5	Composting	12	5.17
		222	100

Table 3: Solid Waste Management In Dankaur Area.

S/No	Statement	Response			
		Yes	%	No	%
1	Solid waste receptacles are provided for waste collection in the area.	153	69.83	71	35.78
2	The distribution of solid waste receptacles within the study are environment is adequate	54	23.28	178	76.72
3	Solid wastes are collected regularly for final disposal by the team of Sanitation Unit	129	55.6	103	44.4
4	The performance of the area Sanitation Unit in solid waste management within the community is satisfactory	131	56.7	101	43.53

CONCLUSION

Solid waste management is, without a doubt, a huge environmental issue that must be addressed for the sake of both man and the environment. The present challenges preventing effective waste management in villages, particularly at Dankaur, were recognized in this study. Personnel to supplement the area sanitation unit's manpower needs are urgently needed. Regular trash collection and delivery to disposal dump locations need the use of waste disposal vehicles. The sanitation unit also need consistent and enough financing in order to purchase equipment such as garbage receptacles and other items necessary for proper solid waste management in the institution. Awareness of environmentally acceptable solid waste disposal methods will also help to prevent indiscriminate solid waste dumping within the Dankaur community.

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