

Impact And Evaluation Of Plastic And Hospital Waste On Rajouri Town

Pratima Bhushan¹, Dr. Ashit Dutta²

¹Research Scholar, Bhagwant University, Ajmer

²Assistant Professor Department of Environmental Science Bhagwant University, Ajmer

Email: ¹p bhushan699@gmail.com, ²ashitdutta7@gmail.com

Abstract: *The enormous quantity of toxic and harmful waste produced in different health-care hospitals and institutions is a major source of worry not just in Rajouri, but also globally. Dangerous and Toxic hospital waste are disposed of haphazardly and indiscriminately, posing a danger to the environment and human health. Plastic trash is generated in large quantities due to the irresponsibility and backwardness of certain individuals. One of Rajouri's main environmental issues is the handling of hospital and plastic trash. As a result, prior to ultimate disposal, the wastes need special treatment and management. The purpose of this research is to evaluate the effect of plastic and hospital waste on Rajouri. The current article is an effort to address the plastic and hospital waste, as well as the procedures for managing and disposing of garbage in Rajouri. It also aims to raise awareness among health-care workers about the consequences of inappropriate waste management and disposal.*

Keywords: *management, plastic waste, medical waste, Rajouri town, health*

1. INTRODUCTION

Although health care is necessary to sustain life, the waste produced by different medical procedures presents a serious threat to many living organisms as well as our environment. Various methods based on the poor handling of hazardous and non-hazardous wastes produced by many health care institutions have a significant effect on the survival of living things. Hospital waste is the most hazardous kind of trash among solid wastes since it is infected with disease-carrying germs and therefore requires proper disposal. Medical waste includes any liquid or solid waste, as well as the packaging and any direct product produced during human or animal treatment, surgery, or vaccination, or during research using organism testing. It includes Syringes, vaccinations, lab samples, solid wastes, hygiene products, anatomical wastes, wasted medications, chemical contaminants, and other wastes [1].



Fig.1 Hospital waste in Rajouri Town

Plastic has also become an essential element of modern life. Because plastic is cheap and robust, the majority of what we eat is made of it, such as plastic bottles and cans. Plastic, on the other hand, degrades slowly owing to its chemical composition, posing a significant problem. It also refers to the large quantity of plastic that isn't disposed and ends up in landfills or uncontrolled dump sites in poor countries. Due to lack of handling and storage, plastic becomes trash. The throw-away mentality of plastic has led to a significant pollution of the environment. General non-hazardous, pathogenic, radioactive, chemical, medicinal, and contagious wastes are the several types of hospital waste [2]. As a result, it is critical to highlight that if they are not correctly handled and disposed of, they may convey and spread a variety of dangerous infections. In this article, an effort has been made to investigate plastic and hospital waste and propose a feasible plan for its scientific disposal, taking into account not only current but also future results.



Fig.2 Plastic and other waste in Rajouri Town

2. STUDY AREA

Rajouri is a town and a municipal administration in Jammu and Kashmir's Rajouri district. The town of Rajouri is situated at 33.38°N 74.3°E. It is 915 metres above sea level on average (3001 feet). According to the 2011 census, the city has a population of about 40 thousand people. Males account for 65 percent of the population, while females account for 35 percent. The Rajouri (MC) municipal committee has a total area of 13 km². The city's population density is 2288 people per square kilometre. The city is divided into 17 wards, with Rajouri Ward No 13 being the most populated with 8359 residents and Rajouri Ward No 03 being the least populous with 793 residents. In the city, there are 4364 homes with an average of 7 people per family.



Fig. 3. Map of Rajouri town

3. METHODS AND MATERIAL

For the purpose of this research, samples of hospital waste were examined for two months, from June 2021 to July 2021. Wastes from the emergency department, casualty officer's department, blood bank, forensic lab, children's hall, Surgical ward, ENT, Ortho ward, Medical wards, and X-ray rooms were gathered in bags and separated into biodegradable and non-biodegradable wastes before being weighed using a weighing scale. During the two-month research period, Plastic trash was collected from Rajouri Town's residents, shops, and institutions.

4. RESULTS AND FINDINGS

During the diagnosis, treatment, or vaccination of humans or animals, hospital waste is produced non-liquid material, body parts, blood, blood components, and bodily fluids, as well as scientific and medical wastes containing human disease-causing substances. In addition, the town's biological waste is not handled. Biomedical waste is hazardous to human health and the

environment. In Rajouri, biological waste is generated by one ancient hospital, a few private health facilities, and testing labs. All healthcare institutions have ineffective biological waste segregation and categorization procedures. The personnel in charge of biological waste are inept managers. In most Rajouri-based hospitals, infection control procedures like as sanitation and disinfection are strictly followed. The highest proportion of biodegradable waste (73.22%) is found in the quantitative study of the waste, followed by non-biodegradable waste (26.78%). (Fig 4) Cleaners collect trash and deposit it in municipal dustbins, which is the current method for biological waste management at the hospital. Cleaners utilize wheel barrows on a weekly basis to transport trash from dustbins to government vans or public vehicles. It was surprised to learn that medical wastes produced by the district hospital in Rajouri are not properly disposed of, presenting a serious danger to all living things in the region. Solid waste that has not been cleaned is still thrown over roadsides, open areas, and water sources, resulting in terrible living conditions.

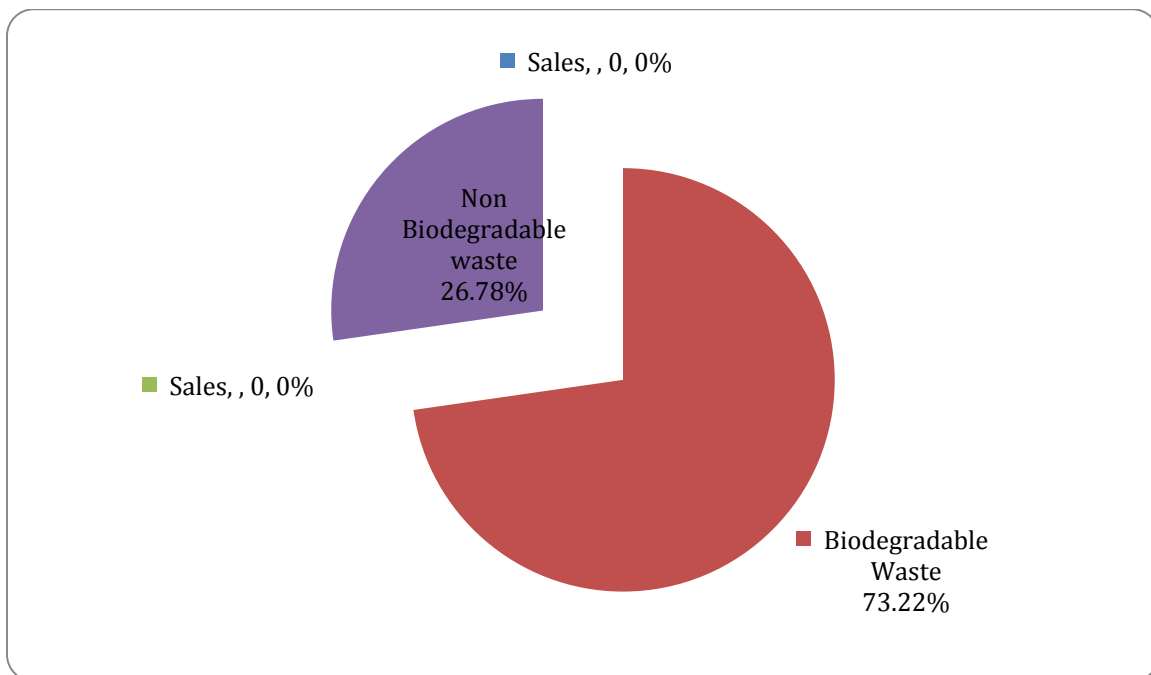


Fig. 4 Percentage of Biodegradable and Non-Biodegradable Hospital waste

In commercial and market sectors, solid trash with a significant ratio of plastic is prevalent. Plastic slows the infiltration of rainfall, lowering the water table and endangering aquatic life. Plastic has a negative impact on soil productivity and quality. Plastic trash littering has given the whole town an unpleasant and dirty appearance. Landfilling may out to be an ineffective way of disposing of plastic trash. During the winter, merchants burn package and other waste, such as containers and plastic bags, at the market and industry areas. The gases produced when this substance is burned induce irritation in the eyes, headaches, nausea, and allergic sensitivity in those who are involved for an extended period of time. Waste fire gases include compounds that induce breathlessness in asthma sufferers, and babies are particularly vulnerable. The containers should be reused and repurposed instead of being burned.

5. CONCLUSION

Rajouri requires a biological waste management strategy that would eliminate waste risks and guarantee safe disposal. For appropriate disposal of Hospital waste, incineration should be promoted. To promote the advantages of optimum hygienic practices, awareness activities must be developed. People must be informed about the health risks posed by plastic trash, biomedical waste, and waste water. Nature is an important part of human existence since it supplies enough to meet man's fundamental needs. Ecological disruptions result from a failure to recognise the essential services provided by nature. Rajouri is dealing with all of these issues, and unless a well-thought-out strategy is implemented, the difficulties will become terrifying and uncontrolled. The necessity of the hour is for a concrete implementation plan and public participation to preserve and restore Rajouri's legacy before it slips into obscurity.

6. REFERENCES

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