

Chapter 3

Situation and Impact of Solid Waste Mismanagement Perception of Households in Rajshahi City of Bangladesh

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ABSTRACT

The study empirically investigates the situation and effect of household solid waste mismanagement in Rajshahi city of Bangladesh. For this purpose, the study collects data from 120 households in Rajshahi city through personal in-depth interviews to investigate the situation and impacts of household waste management. The present study reveals that the city produces mostly food waste, collected by the scavengers employed through city corporations but poorly managed due to a lack of categorization and recycling technologies. According to the perception and responses of the households, waste odor and disease infections are the most common impacts of household waste mismanagement in Rajshahi city in Bangladesh. The conclusion reveals that lack of proper knowledge and use of technology with regards to

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waste management and its recycling is one of the significant reasons for bad impacts through unplanned open dumping and burning system practiced by the city authority. It is recommended to reorganize the waste management system in the City by installing proper dustbins.

1. INTRODUCTION

Considering the fact, that now a day's improper waste management is a global issue. In poor nations, waste treatment and disposal systems generally consist of open dumping and open burning (Ferronato and Torretta, 2019). According to Haider and Riaz (2021), proper solid waste management benefits both the environment and its population. However, research that addresses all aspects of solid waste management is lacking. This comprises regular operating methods, existing problems, and proposed solutions. Urbanization and population growth are the direct reasons of the rapid increase of solid waste, which poses a significant problem to Municipal Corporations worldwide (Alam and Ahmade, 2013). Moreover, to live a sophisticated life in the world, people produce a lot of things, used it and then threw it as a waste in the earth. It can be in any form, either in solid or liquid or gaseous. It may range from a small to large size (Barthel et al. 2010; Chen et al. 2013).

In Bangladesh, waste disposal and its management is one of the most critical functions of the city corporations. The government spends a lot of money on trash collection in metropolitan areas, but it's never enough to keep up with the amount of garbage people generate every day, especially when there are also problems with physical design, government laws, and administrative and managerial structures. (Hasan, 1998). Waste management is a tricky task where mismanagement sometimes poses serious problem in urban areas. The general people and government always bypass their responsibilities to each other. But specifically local authorities like city corporations in Bangladesh are bound to keep their area clean (Yousuf, 2014). In Bangladesh, household waste (HW) management is a major issue, considering the fact as it involves huge costs. Since more space is required to store garbage, this problem is only becoming worse. Household and other waste is thrown in open fields in majority of Bangladesh's cities, including Rajshahi City Corporation (RCC). It has an immediate and serious environmental effects on the city people. Observed that the impacts of solid waste disposal on environment in Rajshahi City are aesthetic problem, water pollution, unhygienic, spreading of diseases, CO₂ and methane emissions. Furthermore, it was discovered that the contamination of the city's drain water by waste is a major contributor to the spread of diseases including malaria and respiratory issues. There is a widespread lack of finances for the establishment of common waste management facilities, and the legal structure does not permit swift enforcement proceedings. This report provides commentary on each of these factors. Rajshahi is an underprivileged municipal corporation compared to others, and home trash management is one of the city's major concerns. Every day, the city's industries, factories, markets, hospital, clinic, and families generate enormous amounts of garbage. Due to a lack of personnel and technology, the Rajshahi City Corporation is unable to properly dispose of garbage or store it in the right location (Rahman and Jakia, 2013).

In Rajshahi City, approximately 350 tons of trash are generated daily, with the number increasing to 400 tons in the summer, and 12 tons of waste are classified as hazardous. Only 210 tonnes of the entire collected wastes are put on the landfill, while the remaining 140 tonnes are dumped directly into sewers and drains, aquatic bodies, and open spaces (Atik, 2013). Waste management or waste disposal refers to all of the activities and steps necessary to manage waste from its inception through its final disposal.

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