Page 3439 - 3446 **DOI:** *https://doij.org/10.10000/IJLMH.111796*

INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES

[ISSN 2581-5369]

Volume 4 | Issue 4

2021

Environment Protection in India: Issues and Challenges with Reference to Solid Waste Management

GAGANDEEP SINGH[1] AND DR. VIJAY SRIVASTAV[2]

ABSTRACT

In developing countries, solid waste damps are doing havoc on the environment. Improper solid waste disposal has a huge negative environmental impact which can be observed all over the developing globe. Despite the fact that service levels, environmental effects, and costs vary widely, solid waste management is likely the most important municipal duty and serves as a necessity for other municipal acts. As the world rushes towards the development goals, solid waste is one of the most crucial by-products of an urban lifestyle that is expanding even faster than the rate of urbanisation.This article deals with the idea of prevalence of community trash reduction and waste separation procedures is substantially linked to a community's sense of cleanliness where the conclusion implies that by promoting a favorable environmental image and performance within a community, residents will become more engaged and push for sustainable SWM practices. Proper garbage collection, treatment, and disposal are the major challenges that needs to be focused on for a long-term sustainability.

Keywords: *Solid waste management, environmental impacts, community awareness, urbanisation, challenges of SWM.*

I. INTRODUCTION

The necessity for environmental protection and conservation as well as the sustainable use of natural resources is highlighted in India's Constitutional Framework as well as the International Conventions which are being agreed upon by India. However, well-established framework came only after the UN Conference on the Human Environment (Stockholm,1972) got evolved. In 1972, the National Council for Environment Policy and Planning was established as a regulatory agency to deal with environmental issues.[3] In 1985, the council was transformed into the full-fledged Ministry of Environment and Forests (MoEF), which is now India's

[1] Author is a LLM student at Uttaranchal University, Law College Dehradun, India.
[2] Author is an Associate Professor at Law college Dehradun, Uttaranchal University. India.
[3]Tanay Akash, Evolution of Environmental Law and Policies in India, Legal Desire (2019)

 [ISSN 2581-5369]

primary administrative authority responsible for ensuring the legislative and regulatory framework for environmental preservation.[4] Despite the recent improvement in recent legislations adopted by the Indian Government and International Commitments there has been an inevitable consequence of industrial progress and developments in terms of generation of waste which is a matter of concern both nationally and internationally.

India's National Environment Policy was approved in 2006, with a focus on the need to collect and treat systems for recycling all types of trash generated, as well as create strategies to safely dispose of residues.[5]Still In India, where industrialization, economic expansion, and urbanisation have resulted in an abundance of solid waste, solid waste management (SWM) remains a major source of worry. Effective SWM is a significant challenge, particularly in heavily populated places. Currently, 90% of residual trash is discarded rather than properly landfilled.

Solid waste management is defined by Britannica as "***The collecting, treating and disposing of solid material that is discarded because it has served its purpose."***

Poor waste management has contaminated the water bodies and clogged drains, causing flooding, disease transmission, and respiratory difficulties. Solid waste management, excluding transportation, accounted for 5% of global emissions in 2016..[6]

II. LEGISLATIONS FOR ENVIRONMENT PROTECTION AND WASTE MANAGEMENT

(A) Regulatory Regime for Waste Management

The principles of "sustainable development", "prevention" (measures should be taken to prevent degradation and environmental hazards) and "who pollutes pays" (Polluters must incur the cost of environmental damage caused by their own actions) underpin India's waste management guidelines.[7]As the Supreme Court of India has stated in several judgements, these ideas constitute an intrinsic aspect of Indian environmental law jurisprudence. Companies and sectors are required to follow these principles.If the business procedures have upset the unit's balance, it restores it in a responsible and ecologically appropriate manner. The Ministry of Environment has established many subsidiary legislations in accordance with the general law of the Protection Act to govern the disposal and treatment of waste, taking into account the nature and growing levels of waste generation as a by-product of development.

[4] Supra 5
[5]National Environment Policy, 2006 (last visited on August 1, 2021)
[6] Waste Management in India- statistics and facts
[7]Arya Tripathi, Waste Management in India: An Overview, Mondaq (2015)

 [ISSN 2581-5369]

The Environment Protection Act, 1986; Section 6 of this act authorizes MoEF to issue rules on a wide range of issues, such as environmentally sound standards, allowable limits for pollutant discharge, how to deal with hazardous materials, industrial locations and their operations, and preventive measures for environmental damage.[8]Certain types of garbage are subject to different standards and need different compliance, owing to the need for legal authorization. Some rules have specific consequences for contract breaches, and in some cases, the EPA applies general penalties, such as imprisonment for the person in charge (directors, managers, and senior personnel of the company where the breach occurred with their consent or collusion) for up to 5 years AND /or fines of up to 100,000 Indian rupees (1574 USD).

(B) Plastic Waste (Management and Handling) Rules, 2011

To ensure the management of plastic waste, The Plastic Waste (Handling and Disposal) Regulations ("PWM Regulations"), 2011 established a legal framework for manufacturing, use, and recycling of plastic bags. Plastic waste is any plastic product that is thrown after use or when it reaches the end of its useful life, such as transport bags, bags, and so on. These guidelines apply to all plastics product makers, stockists, distributors, retailers, and consumers. All manufacturers of plastic bags, bags, or multi-layer pouches, as well as all recyclers, are required by Rule 9 to register with the SPCB. This registration is for a period of three years. Furthermore, Rule 10 mandates that no store may supply free plastic bags in order to ensure payment for the usage of plastic. The PWM rules also define other characteristics of plastic bags, such as colour, thickness, recyclable, or compostable plastic, and municipal obligations.As there are no specific penalties for non-compliance, fines will be imposed under EPA, which enables the person in charge to face up to 5 years in prison and/or a fine of up to 100,000 Indian rupees (15,574 U.S. dollars).[9]

(C) Hazardous Wastes (Management and Transboundary Movememnt) Rules, 2008

The Hazardous Waste (Handling, Processing, and Cross-Border Movement) Rules 2008 ("HWM Rules") aims to regulate the generation, storage, reuse, recycling, and hazardous waste. The Basel Convention, which governs the transboundary transfer and disposal of hazardous waste, was signed and ratified by India in 1992. The Basel Convention's prohibitions on the transboundary movement of hazardous wastes for recycling purposes have been included into HWM guidelines. Hazardous waste is defined as any waste that is self-contained or may cause or be hazardous to health or the environment due to its physical or other qualities

[8]The Environment (Protection) Act, 1986
[9]Plastic Waste (Handling and Disposal) Regulations ("PWM Regulations"), 2011

 [ISSN 2581-5369]

(characterised as chemical, toxic, combustible, reactive, explosive, and so on).Used in combination with other substances.Specialization in petrochemicals, oil and gas, petroleum, mining and minerals, zinc, copper, lead-based manufacture, textiles, steel, asbestos, electronics, tanning, and other operations that generate hazardous wastes. According to Section 5(1), each manufacturing resident must be approved by the SPCB and will be responsible for the safe and environmentally sound handling of hazardous waste generated at the facility.As a result, each home must I only sell hazardous trash to licensed recyclers, (ii) transport hazardous garbage in a specific manner, (iii) avoid accidents, and (iv) raise awareness. 13 Furthermore, as a resident, you must file an annual declaration and keep track of hazardous waste generation in the approved manner.[10]

The ministry of Environment and Forests issued MSW Rules, 2000 to draft new rules and ensure appropriate waste management system in India.

III. BASIC PRINCIPLES OF SOLIDWASTE MANAGEMENT

(A) 4rs: Reuse, Reduce, Recycleand Refuse

Reuse- Reuse everything after getting it used after 1st time to make maximum out of it.

Reduce- Alter the lifestyle to make minimum generation of garbage.

Recycle- Segregate such things that can be recycled or could be converted into manures and other useful products after its 1st use.

Refuse-Avoid buying things that one doesn't really need to lessen the production of waste.

(B) Segregation of Waste

Its important to segregate the waste into various types like organic and inorganic to make sure the effectiveness of Solid Waste Management.[11]

(C) Different Treatments for Different Types of Solid Wastes

The appropriate techniques must be applied which are suitable for the given type of waste to avoid mixing and easy separation of the garbage generated.

(D) Treatment at Nearest Possible Point

The solid waste is required to be treated in a decentralized manner most preferably at the site of generation to make minimal cost of transportation.

[10]The Hazardous Waste (Handling, Processing, and Cross-Border Movement) Rules 2008
[11] Waste Segregation- WHO Report

 [ISSN 2581-5369]

IV. ENVIRONMENTAL IMPACTS OF IMPROPER SWM IN DEVELOPING COUNTRIES

All efforts aimed at decreasing negative effects on human health, the environment, and the economy are included in solid waste management systems. Collection, transportation, distribution, and communal solid waste disposal are all key issues in developing countries. India's environmental and sanitary conditions are becoming increasingly complicated as a result of unplanned communities and city expansion. Residents are forced to live in dangerous and filthy situations due to a lack of information and financial resources. An inadequate SWM system will lead to environmental damage in the community.[12]Illegal dumping of solid waste has led to the spread of variousdiseases in India. The amount of solid waste produced per capita in emerging countries is increasing every year as a result of urbanisation. The physical composition of waste, temperature and precipitation,density of trash, scavenger activity for recyclable separation, treatment capacity, inadequacy, and limited resources all complicate the administration authority's job. In India, a number of atypical SWM are in use since development authorities are unable to provide equivalent types of solid waste management systems for different communities due to varied living patterns.Because of lack of storage containers and an insufficient management system, India's current solid waste facilities have an extremely poor collecting efficiency.Across the country, open dumping, open-burning, and un-engineered sanitary landfills are all very common. Residents in developing countries are suffering serious environmental effects as a result of poor solid waste collection and disposal systems.

V. BARRIERS TO IMPROVED WASTE MANAGEMENT

Currently, the SWM system of India is poor because of the non-utilization of effective waste collection methods which is due to the unavailability ofqualified waste management professionals and accountability throughout the country. Another reason for the ineffective waste management system is a lack of financial allocations to pay the costs of proper garbage collection, treatment, storage, segregation, and disposal.[13]

Limited environmental awareness and public attitude towards waste is the result of lower motivation which has inhibited innovation and the adoption of newer technologies that can help in transforming waste management systems.

In the case of ***Almitra H. Patel and Anr. Vs Union of India (1998),***a Writ Petition was field

[12]N. Ejaz, Environmental Impacts of Improper SWM in developing countries; a case study of Rawalpindi City, The Sustainable World 379

[13]Sunil Kumar, Challenges and Opportunities Associated with Waste Management in India, Royal Society Open Science (2017)

by a Delhiite and it was held by the learned Amicus Curiae that "MCD and NDMC should be issued multiple directions relating to the manner in which the solid wastes generated in Delhi should be handled properly." A discretion was given to the government, local authorities and all statutory authorities to discharge their obligations and duties in keeping the city reasonably clean.[14]

VI. CHANGES REQUIRED TO ENHANCE THE EFFICIENCY OF SWM SYSTEMS

The core of India's waste management vision is to use waste as highest-value resources for extraction, recycling, recycling and reuse. ULB must be in charge of trash management, and ULB commissioners and presidents are directly accountable for the waste management system's success. Waste management should be recognised as a basic service that requires long-term investment by the entire Indian society. The case presented to ULB in order to achieve an adequate funding system should demonstrate the advantages of a dependable waste management investment.[15]

If India's SWM is to develop, it will need a strong and autonomous institution to control waste management.. There will be no progress unless there is explicit monitoring and enforcement. Regulations that are forced to be repealed can encourage innovation.ULB has set precise performance standards for the waste management section, which must contain 4,444 appealing and profitable firms. When waste management services fail to function properly, they will be fined $4,444. Companies that manage garbage and infrastructure funding must receive revenue from the producers of waste through waste levies. The average cost of 1 rupee per person per day is 4,444 rupees, which generates about 500 billion rupees per year, and the funding level of 4,444 rupees may be sufficient to provide efficient services. The quantity and quality of futurerubbish are critical factors in determining the efficacy of various waste management and treatment systems. Primary and secondary collection, as well as an effective collection, transportation, and monitoring system, require national purchase of equipment and vehicles.[16]

Nagpur introduced a road sweeping system, each employee sweeps a fixed-length road. In 2007, UN-Habitat selected the Swatchata Doot Aplya Dari (Home Health Worker) program from the Development Communication Center as a good practice example.

Waste management must incorporate waste classification at its initialsource of generation in order to enable more efficient extraction and valuable recovery. Separating inorganic and moist

[14]Almitra H. Patel and vs Union of India (1998) 2 SCC 416
[15]Satpal Singh, "Solid Waste Management in Urban India: Imperatives for Improvement", ORF Occasional Paper (2020)
[16]Rohit Aggarwal, "Waste Management Crisis in India", Recycling Magazine (2020)

 [ISSN 2581-5369]

i.e. organicwaste will provide considerable benefits and should be a waste producer's responsibility. Visionary programmes from ULB, the corporate sector, and non-governmental organisations are required for long-term waste management planning. To develop a sustainable system, roles and duties must be defined, and progress must be monitored andevaluated.[17]These insights should be shared throughout India's many geographies and social groups. Many academic institutions, organisations, non-governmental organisations (NGOs), and private sector firms are looking into the entire approach to SWM, and India's future waste management system should involve wide informal sector participation across the system.

Training and capacity building are essential at all levels of solid waste management.School going Children in India must alsounderstand and acknowledge the essentiality of waste management, the implications of poor waste management on the environment and public health, and everyone's role and responsibilities in the waste management system. Citizenswill get encouraged to consider waste as a valuable resource as a result of this.

VII. CHALLENGES IN FINAL DISPOSAL OF SOLID WASTE

- In the countries which are still developing, majority of solid waste is deposited on land in an uncontrolled way. Because of the inadequacy of garbage disposal facilities, there creates major environmental issues that could jeopardize health of all living beings and pose critical environmental threats. Leachate contamination of surface and ground water, soil contamination through direct waste contact, and air pollution from trash burning are all examples of environmental degradation caused by inadequate garbage disposal.[18]Inadequate disposal is also caused by insufficient rules for the location, construction, and operation of new landfills, as well as a lack of advice for possible upgrade options. Many municipal officials believe that dumping waste in an uncontrolled manner is the best option. These are frequently the only landfill rules available to people from high-income nations, and are based on technology standards and practices customised to the conditions and rules of high-income countries, and they ignore disparities in technical, economic, social, and institutional aspects.[19]

VIII. CONCLUSION

Environmentally sound waste management is an essential element in aspect of development

[17]Chandrashekhar Kshourad, "The Crisis of Waste Management in India", Institute for Integrated Management of Material Fluxes and of Resources

[18]Vijay Kumar, "Problems of Solid Waste management in Indian Cities", International Journal of Scientific and Research Publications, Volume 3, Issue 3, (2013).

[19]Samar Lahiry, "India's Challenges in Waste Management", Down To Earth (2017)

still is often overlooked in terms of sustainable planning, healthy and inclusive cities. Governments must take charge in addressing the problem of waste management for the well-being and better future of posterity.

"Solid waste management is everyone's business and ensuring effective and proper solid waste management is important to achieve the Sustainable Development Goals."

Focusing on the amount, place and type of waste generated, local governments can contribute in allocating realistic budget, consider strategic partners for service provision and assessrelevant technologies to minimize the mishandling of solid waste produced and dumped. There is a need for World Bank to support countries in making critical solid waste management financing policy and shifting its focus to waste data for effective analysis and reduction in the generation of the same. In this era of population growth and rapid industrialization, there is an urgent need to take critical actions at all levels of society. To make the process of solid waste management most affective one must ensure to make people aware about the havoc mishandling of waste creates. There is a need to engage community awareness and make people more concerned about the importance of waste management as its is fundamental while seeking for sustainable waste management systems. India needs a stricter waste policy regime and availability of trained people in the same to make its situation any better.

*****

 [ISSN 2581-5369]