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Research Article

Future Perspectives On Attaining Zero Waste: An Empirical Study Of The Contrasts In The Municipal Solid Waste Strategies Of Two Municipalities In India

Kirti[1*], Prof. Mehtab Singh[2]

[1*]Ph.D Research Scholar, Department of Geography, M.D.U, Rohtak, Haryana, Email: gahlawatkirti26@gmail.com
[2]Head& Professor, Department of Geography, M.D.U, Rohtak, Haryana, Email: msrana241@gmail.com

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ABSTRACT

Economic growth and sustainable development can only be realized by enhancing commodity and resource production, consumption, and disposal. The developing world is consistently making a noticeable physical imprint which is having debilitating impact across the developing world. It represents a downward spiral in living conditions. The developing world's disproportionate contribution to global warming pose a serious threat to sustainable development efforts that have been endorsed by the United Nations. The 17-goal Sustainable Development Goals (SDGs) outline a path towards a more equitable and sustainable world by reducing poverty, protecting the environment, improving urban livability, and promoting social equality. Specifically, by 2030, all forms of waste, particularly hazardous waste, should be managed in an ecologically sound and sustainable way, and everyone should have access to sufficient, safe, and affordably priced garbage collection services. Open burning and uncontrolled dumping should also be eliminated. Global sustainability is the intended target of these objectives.

The term "municipal solid waste management" refers to a set of procedures used on a global scale to deal with trash in a way that takes into account ecological, public health, engineering, economic, and conservation best practices. This entails overseeing the production, storage, collection, transfer, transportation, processing, and disposal of municipal solid waste in different governing entities, such municipalities. Regular trash collection and removal from populated areas is the goal of municipal solid waste management [MSWM], which aims to keep these places clean and free of unsightly rubbish, diseases, and pests. Several plant and animal species, as well as humans, have suffered greatly from the negative effects of uncontrolled solid waste near human settlements throughout history. Local governments and localities are currently responsible for Municipal Solid Waste Management (MSWM). Recycling and reusing items can significantly decrease the generation of Municipal Solid Waste (MSW), an ever-growing problem that can be mitigated but not entirely eliminated. Onsite handling, processing, disposal, and storage are just a few ways to accomplish this, all of which contribute to a clean and safe environment. Garbage, organic debris, harmful chemicals, discarded food, industrial trash, and toilet paper are all components of solid waste.

Keywords: SDGs,Hazardous waste, Municipal solid Waste Management, Environment.

Introduction

Poverty, unemployment, inadequacy of resources and social services, environmental issues, and depletion of local resources are only some of the negative outcomes of emerging nations' recent up surges in urbanization

and population expansion. Disruptions are often caused by additional unfavorable city-related economic, social, and environmental variables. A connection exists between this scenario and the fact that all nations must accomplish the sustainable development goals.The Sustainable Development Goals are focused on preserving the planet, healthier populations, and more affluent countries. There entail reducing the negative effects of these changes and fostering a climate of peace and security granted privileges and advantages, such as the capacity to collaborate in accordance with established guidelines and protocols [Gurbo, 2017]. Every projects, regardless of size, have the potential to impact the globe.Every advancement can contribute to the UN's Sustainable Development Goals. The accomplishment of the seventeen Sustainable Development Goals (SDGs) is an undertaking involving several stakeholders and levels of influence, with Municipal Solid Waste Management (MSWM) playing a crucial role.The principal motive of this paper is to ascertain how municipal waste contributes to the achievement of the SDGs. The steps involved in municipal solid waste management (MSWM) are disposal, neutralization, treatment, discharge/storage, and collection [Starovoytova, 2018]. The fundamental concepts of MSWM emerged from solving particular problems related to urban waste management. International organizations are aware that improvingmunicipal solid waste management piecemeal is not possible. According to Memon (2010), an integrated strategy is needed to reduce the quantity of waste that needs to be collected, processed, and disposed of. The aim of this integration is to consider individuals or organizations engaged in waste management as well as anything that might have an effect on the standard waste management process.

The concept of “zero waste” has gained significant momentum in recent years, as the global community grapples with the pressing issue of municipal solid waste management. India with its rapidly growing population and urbanization, faces significant challenges in managing municipal solid waste (MSW). The country’s diverse geographical, cultural and socio-economic conditions contribute to the complexity of municipal solid waste management practices. To shed light on the contrasting approach to zero waste in India, the study focuses on two municipalities: Indore and Rohtak.Indore, often hailed as one of the cleanest cities in India, has implemented a comprehensive waste management system that include segregation at source, composting and waste to energy facilities. On other hand, Rohtak has faced challenges in achieving efficient waste management. By examine the strategies adopted by these two municipalities, this study aims to identify key factors influencing their success in attaining zero waste.The SDGs, are relevant to numerous facets of city planning and management. An environment that is free from pollution has a connection to the waste management industry. Tasks related to waste management and integrating projects that impact the attainment and advancement of several SDG indicators directly or indirectly. The waste management industry affects numerous crucial facets of progress when properly administered (Silpa Caza, 2018). It is essential to understand waste management techniques affect the achievement of the 17 SDGs.

The objectives of the current study of the relationship within the fulfilment of the SDGs and the MSWM strategies are:

1. To understand the concept of sustainable development.
2. To study the integrated processes about sustainable Municipal Solid Waste Management.
3. To gain knowledge on the various criteria involved in sustainable municipal solid waste management.

Human Face of Waste Generation to Disposal

A large portion of the income for millions of individuals in poor nations comes from recycling and reusing materials. Finding out what works inmunicipal solid waste management systems for the informal sector is a goal for many developing nations so that they may incorporate informal workers into formal waste management techniques and thereby lower poverty rates in this industry. We were able to ascertain the level of environmental contamination by compiling expert evaluations from a vast array of papers and online resources pertaining to solid waste issues. First, the US contributes 18% of the world's solid trash; second, China 15 percent; third, Brazil 4 percent; and fourth, Japan 4 percent.From 2.4% to 3.7% of MSW is produced inside the borders of the following countries: Turkey, Mexico, India, France, Italy, Russia, Germany, Britain, and France. With all other states combined, MSW amounts to over 36%.Recycling organic waste into organic fertilizers could lead to higher agricultural productivity rates and better crop quality all year round, which in turn would help countries provide more nutritious food. In underdeveloped nations, there is frequently a problem with the medical waste disposal system. Accidents and infections occur as a result of staff members being overworked in overcrowded hospitals. One way to cut down on the spread of disease is for hospitals and other healthcare facilities to properly dispose of the medical waste. This includes incineration or sterilizing and shredding.Garbage collectors, constantly faces the threat of disease and infection due to the dangerous sorting and recycling of many types of hazardous waste. They face the risk of early death due to the direct exposure during the sorting processes in the informal system and direct contact with waste without proper precautions to prevent the transmission of sickness and infection. In most developing nations, the communities of garbage collectors have children working in various parts of the system, which leads to higher rates of illiteracy and discourages them from continuing their education.

Dumping of Solid Waste and the Growing Global Scarcity of Clean Water

Plastic trash, invisible chemicals, and direct discharges of industrial waste are just a few examples of the many types of pollution that endanger both humans and wildlife when they reach freshwater sources. Subterranean water, rivers, streams, and lakes are the final destinations.The soil or freshwater receives one-third of the world's plastic trash. Never will plastic break down. The substance breaks down into nano-plastics, which are small particles smaller than 2.5 mm. These nano-plastics then break down even further into nanoparticles, which are even smaller, less than 0.1 μm in size. These nano-particles eventually go into the food chain. Polluted fresh water supplies can lead to a host of health problems, including hormone imbalances and cancer [Lamizana, 2013]. Getting better water is definitely more likely if we lessen the pollution that comes from depositing toxic trash in or near waterways.Reassessing the city's daily trash output (measured in tons) with an eye towards possible new energy sources, this is in response to recent technological advancements in solid waste management. The foundation of waste-to-energy generation is the chemical treatment of solid waste to produce electricity. Currently, after solar and wind power, trash is the renewable energy source with the third-fastest rate of growth worldwide. Between this and biomass, more than half of the renewable energy used worldwide is produced [Ogola, Chimuka and Tshivhase, 2011].

Attaining Zero Waste: A Distant Goal

With the help of several experts and recent advances in solid waste management technology, almost half of the trash is burned to create liquid or gaseous fuel [Lamizana, 2013].Offering quality work for everyone is complicated, and informal employment is a big part of the problem. Due to the growing prevalence of informal employment in developing nations within the SWM systema system that lacks social insurance and safety standardsit is necessary to improve the working conditions of this sector by incorporating it into the system's formal framework. Improving working conditions and expanding access to respectable jobs for everybody by integrating the knowledge and skills of the informal sector into the SWM framework. The economy can benefit from this since it can enhance the production rates of different SWM sectors while decreasing the amount of raw materials utilized by different companies. This, in turn, boosts the efficiency of solid waste recycling technology and the economic rewards are maximized. Many informal sector firms, industries, and activities can be built upon the recycling of solid waste, which in turn creates good job opportunities. The basis of industrial development in underdeveloped nations, according to Banik (2018), are small industries that depend on domestic resources with very little investment.Numerous jobs and chances for self-employment are provided by small industries, which can be assisted by the SWM sector. The two municipalities under study need to implement strategies to attain these goals. In addition to opening up possibilities for micro-projects that rely on composting well-separated organic waste, recycling materials opens up possibilities for limitless industries and micro-projects that spur innovative processes across a wide range of industries. The output of sorting solid trash from recyclable items, such as plastic, glass, paper, or cloth, is crucial to the recycling process.Lessening global warming and poverty while simultaneously enhancing health, education, and economic development are the overarching aims of each of the seventeen targets. Pursuing "protection of the earth, and improvement of the lives and prospects of everyone, wherever," is how the UN defines the SDGs.

Sustainable Development's Five Foundational Elements

Using the 5 Ps as a framework, each of the 17 SDGs addresses a different aspect of sustainable development. You can't afford to ignore these.

1. Humans
2. Earth
3. Happiness
4. Harmony
5. Collaboration

These are the five pillars, with sustainability at their center. The government's activities aimed at achieving the SDGs can be better informed by these pillars.

Social Patterns of Socio-Economic Inclusion for Informal SWM Communities

A more integrated social and economic system with less inequality may be within reach for developing countries if they engage in SWM. Many developing countries' economic development is influenced differently by their formal and informal systems. The enormous social and economic advantages of this integration are prompting some developing nations to propose new policies, exert concentrated efforts, and multiple times to facilitate the processes of combining the two systems. Some governments attempt to placate the informal sector's fears about taking on more tax and insurance obligations by offering health care benefits in addition to pension and insurance systems that require monthly payments. An additional possible use of the green circular economy's guiding principles, would I have dedicated companies collecting and recycling the waste that their goods generate as part of the extended producer responsibility concept.Included among the several other plans. The emphasis is on waste prevention, reuse, recycling, energy recovery, and final disposal

making it widely recognized as a more environmentally friendly method. As a result of its high economic value and ability to reduce environmental contamination rates, the concept of hierarchy is fundamental to solid waste management (5Rs: Refuse, Reduce, Reuse, Recycle, and Regenerate to attain zero waste).

Basic Principles of Municipal Solid Waste Management

❖ 5Rs: Refuse, Reduce, Reuse , Recycle & Recover:

- **REFUSE**: Preventing is the phase in the solid waste management hierarchy that is most recommended. This is due to the fact that the design and manufacture processes employ the fewest resources and materials, so reducing waste production.
- **REDUCE**: Reduce is the process of cleaning, inspecting, fixing, and refurbishing found spare or complete items. This stage prevents the unchecked entry of improper waste items into the disposal system.
- **REUSE**: Waste is gathered during the interim process production and returned to the source to support the whole production processes, therefore lowering waste output.
- **RECYCLE**: Recycling solid waste can be done quite well if it is separated at the source. When it comes to dry garbage, we can recycle it properly and it gets useful again. Recovering and using materials from wastes is known as recycling.
- **RECOVER**: Recovery is the process by which garbage is burned and digested anaerobically in order to recover energy. It comprises the procedures of gasification and pyrolysis that generate energy as fuel, heat, and power.

Green House Gases, Sustainable Ecosystems, Climate Change Measures

Greenhouse gases released into the atmosphere by solid waste, such as methane, significantly worsen both climate change and air pollution. A large number of MSW disposal facilities in developing countries use open landfills. The emissions of greenhouse gases and the contamination of air, water, and land are all amplified by these dumps. According to Kristanto and Koven (2019), solid waste was responsible for around 5% of global emissions in 2016. Improved solid waste disposal infrastructure is necessary in many parts of the world since reducing or eliminating open burning of garbage is a crucial step in the fight against climate change. According to data given by the World Bank, out of the total 2.01 billion tonnes of MSW created worldwide, at least one third is not handled in an environmentally safe manner. According to Kaza et al. (2018), solid waste-related emissions are projected to surpass 2.6 billion tonnes of CO_2 or equivalent by 2050 unless the industry takes action. One way to lessen our impact on the environment is to handle solid waste in an eco-conscious manner.

A major contributor to the negative impacts of trash on ecosystem health, the municipal solid waste sector is seeing rapid expansion due to rising populations and increased urbanisation. Ecosystems around the world rely on people to dispose of trash in an eco-conscious manner. An all-encompassing, long-term strategy for managing solid waste takes into consideration well-known frameworks for waste management operations, such as the 3Rs, the 5Rs, and the circular economy model. This approach tackles waste reduction from the ground up. Reducing waste generation is central to these theories in order to mitigate contamination of the air, water, and soil. Reason being, there will be less need to find a place to bury medical waste if the overall amount of trash is reduced. Division of powers between federal and state authorities necessitates collaboration with the business community and non-governmental organisations (NGOs), among other system stakeholders. If choices are to be inclusive, responsive, representative, and participative at all levels, these methods must be put into effect.

The SDGs and the MSWM Equation

The potential benefits—which include increased economic efficiency, protection of local interests, citizen engagement, and guaranteed access to tools and methods to implement transparency and accountability—many developing countries have adopted the decentralization-based institutional framework for integrated solid waste management. These benefits are critical in ensuring that program and project costs are reasonable.

Table 1: Contribution of Waste Management Strategies to Achievement of the SDGs

Sr. No.	17 UN SDGs	Contribution Name of strategies
1	Avoidance of poverty	Invisible
2	The end of hunger	Enabling
3	A state of optimal health	Enabling
4	A high-quality education	Enabling
5	Fair treatment of women	Invisible
6	Sanitation and potable water	Reinforcing
7	Sustainable and cost-effective power	Reinforcing
8	Fair employment and a flourishing economy	Reinforcing
9	Infrastructure, new ideas, and businesses	Reinforcing
10	Minimised disparities	Invisible

11	Community and city sustainability	Visible
12	Conscientious manufacturing and consumption	Visible
13	Climate change prevention	Reinforcing
14	Submerged organisms	Visible
15	Terrestrial life	Enabling
16	Stable institutions, fairness, and peace	Invisible
17	Cooperation towards the objectives	Enabling

Source: PhdunsilpA,[2022]

All UN member nations began pricing MSW in 2015, and these programs can prove to be powerful accelerators for local policy actions that aim to achieve the Sustainable Development Goals outlined in the 2030 Agenda. Considering the demands of future generations, the consequences of managerial actions, and the idea's comprehensive character makes sustainability a complicated and multidisciplinary concept. According to De Matteis and Borgonovi (2021), determining sustainability frequently necessitates a multidisciplinary strategy. It should come as no surprise that encouraging local governments to incorporate sustainable development into their plans has been one of the most pressing policy issues of the modern era. Growing numbers of individuals are acknowledging the critical need of comprehending the United Nations Agenda 2030 and the Sustainable Development Goals (SDGs) as they pertain to metropolitan areas and cityscapes. This includes determining the optimal strategy for implementing the SDGs in order to advance urban development (Taajamaa et al. 2022). As per SDG 11's Target 11.6: "Make cities and human settlements inclusive, safe, resilient, and sustainable," cities are obligated to lessen their negative environmental impact per capita by the year 2030. Specifically, this entails controlling air pollution and other forms of waste. Reduce, reuse, and recycle as much trash as possible by the year 2030 according to SDG 12's aim 12.5. Ultimately, we want to achieve "Sustainable Production and Consumption." It is primarily the responsibility of governments to oversee and regulate the activities of MSW management service providers with regard to community involvement, service quality, and waste collection options. This article offers academics and local officials some pointers on how to impact environmental politics, economics, and policy to achieve Sustainable Development Goals 11 and 12 on a smaller scale, within the framework of the UN's global goals.If the goal of the policy is to reduce the environmental effect through decreasing trash generation, increasing the proportion of separated garbage, and valuing resources, then the tariff design used to charge for MSW services is a crucial instrument for local administration.

Turning Expenses Around to Revenue: User Charges at Various Levels

Conventional metrics like as population, property square meters, or consumers' socioeconomic backgrounds can be outperformed by effective MSW billing programs (Alzamora and Barros 2020). MSWcharges are intended to provide a financial incentive to consumers in order to improve their separate collection and recycling practices. Fixed charge structures and quantity-based fees are the two most popular forms of funding for waste management programs. Since revenue management is crucial to a company's sustainability, it is advantageous that it is simple to use and guarantees a steady flow of income generation. The first is the most popular. Customers are billed based on the volume and type of waste they produce, as per the second approach (Chu et al. 2019 and Morlok et al. 2017).Charges to consumers are based on the quantity and calibre of garbage generated.Economic waste management instruments that implement the "polluter-pays" principle have been shown by Morlok et al. (2017) to produce a variety of positive results, such as a rise in the quantity of waste that is sorted on an individual basis. Various experts have linked unit pricing (UP) schemes to environmental sustainability (Chamizo-González et al. 2018). When these protocols are implemented, recycling rates increase, according to research by the European Environmental Agency.Considering the recent structural modifications, the policy implications discussed in this paper can assist decision-makers in restructuring the municipal waste management chain, creating regulatory and financial tools, investing in waste prevention, and developing and refining technologies for more effective waste collection and sorting.The article's implications for policy will be useful to influential decision makers across numerous disciplines. The principal measures encompass offering financial, policy, and regulatory instruments; endorsing waste avoidance; and restructuring the segment of the municipal waste management chain predicated on the sector's structural advancements, which will quicken as an increasing number of municipalities implement UP programs. In order to increase the effectiveness of major fraction collection, other links in the chain involve developing and enhancing technology. Reaching the goals can be substantially facilitated by spreading SDG-compliant programs, which can incentivise corporations and communities to behave well. Consequently, this aids in optimising collection logistics, lowering service costs, and reducing the residual fraction while raising the percentage of distinct trash. Thought should be given to the possibility that before being implemented locally, policies targeted at enhancing MSW and other public services could need to be modified at the governance level (Beccarello and Di Foggia 2022). Avilés-Palacios and Rodríguez-Olalla (2021) contend that concerted global governance reforms are needed to support the expansion of circular economy markets and expedite the transition to more sustainable economic systems.

Current Interventions and Replicable Strategies

Growing energy consumption per person and waste production are two of the world's most pressing issues at the moment. These problems are getting worse as a result of a number of factors, such as rising living standards, increased urbanisation, and a growing world population. In 2016, cities all across the world produced roughly 2 billion tonnes of municipal solid trash. It is anticipated that by 2050, this quantity will have increased by 70% to 3.40 billion tonnes. Over 90% of waste in developing countries is disposed of in uncontrolled landfills or open flames. Inadequately disposed of, burned, or otherwise handled waste endangers public health, damages the environment, and impedes national economies. A nation in South Asia that is rapidly becoming more urbanised is having problems with its sharp rise in energy consumption and waste production. Increasing the proportion of renewable energy to 20% of total energy consumption by 2030 is one of India's national goals as a signatory to the 2030 Agenda for Sustainable Development. Still, by 2022 the share of renewable energy (including off-grid sources) will only be 3.1%, therefore the government would have failed miserably to meet its target. One option for the government to consider in order to accomplish this goal is waste-to-energy (WtE) generating. Reducing reliance on fossil fuels is the goal of US lawmakers' attempts to recognise WtE as a sustainable energy source. Thus, WtE can help the nation move closer to SDG7, or the Sustainable Development Goals. SDG 7, which aims to increase the share of renewable energy in the world's energy mix, supports Sustainable Development Goal 13, which calls for fast action to mitigate climate change. Furthermore, as outlined below, the government will be able to accomplish goal number 11, which is to develop inclusive, safe, resilient, and sustainable cities, with the aid of WtE implementation: Make air quality and waste management (including municipal and other waste) your top priorities if you want cities' per capita environmental impact to be reduced by 2030.

Transboundary Movements of Waste under the Basel Convention

A worldwide agreement that governs the movement and removal of hazardous waste across international borders, the Basel Convention was adopted in 1989 and came into effect in 1992. The purpose of the Convention is to mitigate the significant risks to human and environmental health associated with the transportation and disposal of hazardous waste, among other forms of waste. The Convention controls transboundary waste flows and the parties thereto have pledged to manage hazardous waste and other forms of garbage in an environmentally responsible manner.Sweden acknowledges the need of complying with Basel Convention laws and the amendment that forbids the export of hazardous waste from OECD countries to non-OECD countries in order to mitigate the adverse impacts of transboundary waste movements. Due to the uncertainty surrounding the designation of end-of-life objects as garbage, transboundary movements have become troublesome, particularly for electronics, vehicles, refrigerators, and end-of-life ships. Hazardous waste accumulates in nations without the resources or know-how to properly dispose of it, which is one problem with these migrations. It may therefore worsen issues related to the environment and public health in these countries. Including the Sustainable Development Goals (SDGs) in waste management plans is essential. Sustainable development is largely dependent on waste management, which addresses problems with the environment, society, and economy. The Sustainable Development Goals (SDGs) and waste management policies can be coordinated, for example. SDG integration into waste management programs is necessary for the following key reasons:

(a) Environmental Conservation: The nation may safeguard its natural resources and encourage environmental preservation by incorporating SDGs into garbage collection and disposal systems. Promoting recycling and resource recovery, reducing trash production, and using environmentally friendly waste treatment technologies are all part of this. Among other Sustainable Development Goals, such actions help achieve SDG 12 (Responsible Production and Consumption) and SDG 14 (Life Below Water).

(b) Global Warming: To slow global warming is to implement sustainable waste management practices. One of the main causes of climate change is emissions of greenhouse gases like methane; however, this problem can be mitigated through effective waste management practices. Aligning with SDG 13 (Climate Action), implementing SDGs in waste management boosts the commitment to the Paris Agreement and reduces carbon emissions.

(c) An approach to waste management that incorporates SDGs promotes a circular economy. Waste reduction, recycling, and the use of less non-renewable resources are all part of this strategy.

(d) Waste management techniques that incorporate SDGs can have beneficial social and economic consequences. Jobs in the green economy, better public health due to less pollution, and stronger communities are all possible outcomes of environmentally responsible garbage management. Asuccessful society emerges by combining SDG 8 (Decent Work and Economic Growth) with SDG 3 (Good Health and Well-being).

(e) India has pledged to complete the SDGs by the year 2030 as part of its commitment to the UN's Sustainable Development Agenda. India joins the global drive towards sustainable development and shows its commitment to completing global commitments by integrating SDGs into waste management programs.

(f) Public Education and Awareness: Including SDGs in waste management plans helps raise public knowledge and understanding of sustainable practices. Participation from communities, businesses, and

schools can help bring attention to waste management and its significance in reaching the SDGs. Incorporating SDG 4 (Quality Education) will provide Indian residents the tools they need to make sustainable decisions.

Research Findings

The need to contribute to the understanding of how local administrations can contribute to meeting SDG 11, Target 11.6 and SGD 12 Target 12.5 has justified the proposed objectives in this paper.
Boosting the percentage of segregated waste collection and linking it with reduction overall of the per capita waste generation is the ultimate goal of attaining the SDGs 2030 scenario.
Many of the worlds cities and especially in the fast urbanizing developing world need to come abreast with the reality.
Higher percentage of sorted waste collection and less per capita waste generation is the only pathway to the reversal of the predicament the world is facing today with rising piles of garbage choking the lifelines of human settlements.

Limitations of the Study

Some of the limitations of this study were as follows:
• Seasonal variations' impact on MSW was not considered;
• Time constraints prevented some stakeholders from participating;
• Some stakeholders' knowledge and experience was inadequate; and
• Most stakeholders failed to acknowledge the importance of waste segregation when ranking the alternatives.

Conclusions

The aims stated in this study are motivated by the need to help understand how local administrations might contribute to reaching SDG 11, Target 11.6 and SGD 12, Target 12.5. The end goal of achieving the SDGs 2030 scenario is to increase the percentage of garbage that is collected in a segregated manner and to reduce overall the amount of waste generated per capita. Designing socio- economic and environmental policy targeted at SDG 11 and SDG 12 to reduce the environmental impact of cities needs to be the immediate focus to mitigate the detrimental impact of mismanaged MSW.A lot of cities around the world, particularly in the emerging nations that are experiencing rapid urbanization, need to face these facts. The garbage piling up and threatening to choke out human settlements, is due to increased proportions of waste that is not sorted. Decreased amounts of waste produced per person need to be urgently addressed. To lessen the negative effects of poorly managed MSW, there must be urgent efforts to craft socioeconomic and environmental policies that aim to achieve SDG 11's objective 11.6 and SDG 12's target 12.5.

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