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UNITED NATIONS ENVIRONMENT PROGRAM (UNEP) EFFORTS TO HELP INDIA ON MANAGING URBAN SOLID WASTE POLLUTION ISSUES (2013 – 2020)

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Abstract

This research analyses the efforts of The United Nations Environmental Programme (UNEP) in assisting the Indian government in addressing environmental pollution issues. India has been fighting against waste pollution for decades. Pollution in India has reached alarming levels as its massive impacts have spread to various aspects of life and the environment. The Indian government has implemented several. India's environmental policy is marked by a comprehensive strategy that tackles diverse aspects such as sustainable development, pollution control, and conservation. Key components of this strategy encompass the integration of environmental considerations, efforts in climate change mitigation and adaptation, promotion of renewable energy, implementation of pollution control measures, and advancements in waste management. Additionally, local and international organizations contribute by engaging in collaborative efforts targeting communities and the environment. One of these organizations is the United Nations Environment Programme, a United Nations body focused on environmental issues. However, sustained efforts are still needed to address this problem and achieve meaningful results. The research methodology is qualitative, and the data collection method is secondary. Data is gathered from academic journals, news sources, and relevant books from valid sources. The author utilizes the theory of Neoliberal Institutionalism to analyze this research..

Keywords: Urban Solid Waste Pollution, Waste Management System, The United Nations Environmental Programme (UNEP), Neoliberal Institutionalism

Abstrak

Penelitian ini menganalisis upaya Program Lingkungan Perserikatan Bangsa-Bangsa (UNEP) dalam membantu pemerintah India dalam mengatasi masalah pencemaran lingkungan. India telah berjuang melawan polusi limbah selama beberapa dekade. Polusi di India telah mencapai tingkat yang mengkhawatirkan karena dampaknya yang besar telah menyebar ke berbagai aspek kehidupan dan lingkungan. Pemerintah India telah menerapkan beberapa. Kebijakan lingkungan India ditandai dengan strategi komprehensif yang menangani beragam aspek seperti pembangunan berkelanjutan, pengendalian polusi, dan konservasi. Komponen kunci dari strategi ini mencakup integrasi pertimbangan lingkungan, upaya mitigasi dan adaptasi perubahan iklim, promosi energi terbarukan, implementasi langkah-langkah pengendalian polusi, dan kemajuan dalam pengelolaan limbah. Selain itu, organisasi lokal dan internasional berkontribusi dengan terlibat dalam upaya kolaboratif yang menargetkan masyarakat dan lingkungan. Salah satu organisasi ini adalah Program Lingkungan Perserikatan Bangsa-Bangsa, sebuah badan Perserikatan Bangsa-Bangsa yang berfokus pada masalah lingkungan. Namun, upaya berkelanjutan masih diperlukan untuk mengatasi masalah ini dan mencapai hasil yang berarti. Metodologi penelitian bersifat kualitatif, dan metode pengumpulan data bersifat sekunder. Data dikumpulkan dari jurnal akademik, sumber berita, dan buku yang relevan dari sumber yang valid. Penulis menggunakan teori Neoliberal Institutionalism untuk menganalisis penelitian ini.

Kata kunci: Polusi Limbah Padat Perkotaan, Sistem Pengelolaan Limbah, Program Lingkungan Perserikatan Bangsa-Bangsa (UNEP), Kelembagaan Neoliberal

1. Introduction

India is one of the countries with the largest population in the world, with 1.4 billion people and a population growth percentage of 1.0% in 2020. This population growth can contribute to the rapid development of urbanization in several regions in India (DFAT, 2022). Urbanization and population growth are contributors that cause an increase in the amount of waste produced every day (Rajamanikam R., et al, 2014). According to Priti & Mandal K. (2019), these two factors led to the emergence of large cities such as Kolkata and Chennai, known as megacities. These cities are India's leading producers of municipal solid waste (MSW).

Solid waste comes from various sources: households and businesses such as restaurants, hotels, shops, markets, hospitals, and clinics. Additionally, construction sites, factories, and processing facilities also produce waste. This waste covers various categories, including food waste, general waste (paper, cardboard), street rubbish (dirt, leaves and dead animals), bulky rubbish (automotive components), horticultural debris (consisting of tree cuttings and rubbish from gardens and gardens), and biomedical waste (Rao et al., R ., & Kota, S. H., 2017).

The severity of the pollution has affected one of the largest rivers, the Ganga River pollution resulting in the deaths of around 1.5 million children every year. In addition, pollution causes the appearance of "superbugs" in the water. These "superbugs" are bacteria that have been reported to resist common antibiotics, thereby increasing the difficulty in treating disease in communities along the Ganga River (Williams., 2023). Elsewhere, two people died due to falling waste in Ghazipur in 2017 because the amount of garbage accumulated was enormous, reaching a height of 50 meters. Plus, the previous rain caused the waste to get heavier, and it caused instability, which caused landslides (Yadav et al.; T. O., 2017).

In the current situation, Municipal Solid Waste (MSW) pollution in India has become a major threat to the environment and local health. Untreated waste releases methane gas, accumulated waste emits harmful odours, discarded bottles create mosquito breeding grounds, and unregulated waste burning leads to respiratory issues (Priti & Mandal K., 2019). The increasing number of landfills compounds the problem. Inadequate waste processing at these sites poses a persistent threat, causing fires, harming vegetation, spreading odours, contaminating groundwater, and contributing to air pollution with carbon dioxide and methane gas (El-Fadel, M., Findikakis, A. N., & Leckie, J. O., 1997).

Through the years, India has constructed several policies to combat this issue. Some of them are: firstly, the Formation of the Ministry of Environment and Forests (1972): A significant milestone in India's environmental policy occurred with the establishment of the Ministry of Environment and Forests (MoEF) in 1972. This marked a more structured approach to environmental governance. During the same year, India hosted the United Nations Conference on the Human Environment in Stockholm, underlining the global significance of environmental conservation (Sinha, G.N., et al., 2014). Second, The Air (Prevention and Control of Pollution) Act, 1981: In a parallel move to the water act, the legislation of 1981 focused on preventing and controlling air pollution. It led to the establishment of State Pollution Control Boards to enforce the provisions of the act (Gupta, R., 2020). Third, National Environmental Policy (2006): The National Environmental Policy of 2006 emphasized sustainable development, the conservation of natural resources, and the integration of environmental considerations into all developmental activities. It recognized the necessity for a more comprehensive

and inclusive approach to environmental management (Atteridge, A., Shrivastava, M. K., Pahuja, N., & Upadhyay, H., 2012).

Fourth, National Action Plan on Climate Change (2008): Acknowledging the challenges posed by climate change, India launched the National Action Plan on Climate Change (NAPCC) in 2008. This plan outlined eight national missions addressing various aspects of climate change, including energy efficiency, sustainable agriculture, and water conservation (Pandve, H. T., 2009). Fifth, Swachh Bharat Abhiyan (2014): Launched in 2014, this nationwide cleanliness campaign aimed to tackle sanitation and waste management issues by focusing on constructing toilets, promoting cleanliness, and reducing open defecation (Jangra, B., Majra, J., & Singh, M., 2016). Seventh, Plastic Waste Management Rules (2016): In 2016, the government introduced stringent rules for managing plastic waste. These regulations included phasing out non-recyclable multi-layered plastic and promoting recycling efforts (Singh, P., & Sharma, V., 2016). Eight, National Clean Air Programme (2019): With a specific focus on combating air pollution, the National Clean Air Programme (NCAP) was launched in 2019. Its objective is to reduce particulate matter (PM) levels in 122 cities across India (Ganguly, T., Selvaraj, K. L., & Guttikunda, S., 2020).

Furthermore, India collaborated with international actors through agreements and conventions such as The Basel Convention, established on March 22, 1989, in Basel, Switzerland, is a key Multilateral Environmental Agreement (MEA) addressing waste pollution. Managed by UNEP, it regulates the transboundary movement of hazardous waste to ensure safe environmental treatment. The convention's main objectives include environmental protection, reducing hazardous waste output, controlling transportation, and providing technical assistance (Peiry et al., 2010). India, an early adopter, ratified the Basel Convention on April 24, 1992, demonstrating its commitment to international efforts in regulating hazardous waste movement and promoting environmentally responsible practices. As a member, India engages in dialogue with other countries on waste management issues and adheres to regulations governing cross-regional movement and disposal of hazardous waste (Sonak, S. M., Sonak, M., & Giriyan, A. 2008).

Also, despite having an existing framework on climate change, India signed The Paris Agreement to engage in discussions on strategies and technology for more effective climate action (Byravan et al.; S. C., 2013). India submitted a Nationally Determined Contribution (NDC) in 2016, updated in 2022, outlining key goals: a 45% reduction in emissions intensity by 2030, 50% non-fossil energy in electricity by 2030 with support from the Green Climate Fund, creation of a 2.5 to 3 billion-ton CO2 carbon sink through afforestation, and advocating for financial, technological, and capacity support (Rattani, V., 2020).

Despite all of the efforts India made, the waste issue is still one of the biggest problems besides climate change. These programs failed for several reasons: inefficient data collection, lack of preparation, weak transportation systems, inadequate infrastructure, poor transportation and disposal methods, and unsustainable funding, so the programs only had a short-term impact (Priti & Mandal; K., 2019). The development of the National Action Plan on Climate Change (NAPCC) in waste management faces obstacles due to poor coordination and implementation, the increasing amount of waste produced by the ever-growing urban population, and waste collection, transportation, processing, and disposal systems needing to develop. The amount of waste produced in urban areas in India was 170,000 tons per day in 2012. However, only a tiny amount was processed, causing waste pollution (Kumar et al., 2017).

For that reason, to enhance the National Action Plan on Climate Change (NAPCC), Prime Minister Narendra Modi launched the Swachh Bharat Abhiyan program in 2014. This initiative targets the elimination of open latrines, with a goal of constructing 12 million toilets. The government is also developing a waste management and transportation system to sustain the operations of these latrines. To ensure cleanliness and functionality, the government holds competitions to identify the cleanest areas through evaluations. While considered successful in improving latrine quality and reducing waste pollution, there are challenges such as minimal community participation, insufficient infrastructure, funding issues, and ineffective implementation (Truelove, Y., & O'Reilly, K., 2020). The 2016 implementation of Solid Waste Management Rules aimed to replace outdated regulations from 2000, mandating waste sorting by companies and requiring cleaning product companies to provide trash bags (Sambyal, S., 2016). However, these efforts face limitations, including a focus on urban areas with better infrastructure and a lack of widespread distribution, hindering their long-term success (Cheela, V., Shankar, U., Dubey, B., 2022).

Recognizing its environmental challenges, besides organizing and creating national plans and policies regarding the environment, India collaborated with the United Nations Environment Program (UNEP) starting in June 1972 (Wang et al., 2018). This partnership addresses waste management issues, as outlined by Yabe et al. (2010), requiring careful planning, infrastructure, and regulations. UNEP's expertise in waste management, particularly hazardous waste disposal and monitoring improvement, is essential for India's efficient waste management strategy and infrastructure development. The 2018 Plastic Waste Management Program, a UNEP initiative, involves collaboration with companies like Hindustan Coca-Cola Beverages Private Limited and Hindustan Unilever Limited to transform the informal sanitation sector, digitize waste management, and establish collection centres (UNDP, n.d). India also joined UNEP's Climate & Clean Air Coalition (CCAC) in 2019, benefiting from technical assistance, coordination, stakeholder engagement, worker training, and financial support through programs like the Small Grants Program (Fund et al.).

Therefore, this paper will discuss "How are UNEP Efforts to Help India Overcome the Urban Solid Waste Issue?". The research will be conducted through study literature using the qualitative method and the secondary data collection. Data is gathered from academic journals, news sources, and relevant books from valid sources.

2. Literature Review

According to Atienzia V. (2011), in his article, "Economic Integration and Recycling in Asia, Chapter 5: Review of the Waste Management System in the Philippines: Initiatives to Promote Waste Segregation and Recycling through Good Governance," developing countries experience inefficiency in waste management system because it does not have adequate technology to deal with large volumes of waste every day. Advanced technology in waste management can be an effective solution for countries with strong and stable economies. However, in the context of developing countries, the use of such technologies can lead to the bankruptcy of weak economies. In addition, developing countries' waste management sectors often need more infrastructure and equipment to process waste.

Furthermore, Chakraborty R. and Seragelding I. (2009), in "Sharing of River Waters among India and its Neighbors in the 21st Century: War or Peace?" discuss The Ganges-Brahmaputra Basin or Watershed (DAS) The Ganges-Brahmaputra is a long

river system and is shared by several countries, namely India, Bangladesh, Bhutan, China and Nepal. Due to its breadth and complexity, the authors argue that this system faces multiple challenges related to water sharing, pollution, industrialization, and seasonal flows contributing to the water crisis. Densely populated watersheds face water quality problems due to untreated urban and industrial waste discharge. Pollution from urban and industrial areas significantly reduces river water quality, which is a problem because waste from the watershed flows into the rivers of neighboring countries.

Meanwhile, "Beating Plastic Pollution: UNEP's Priorities and Partnership in India" by Atul Bagai and Sonia Devi Henal in 2021 discusses that Plastic pollution is a significant global problem due to increased production and consumption of single-use plastic products. Developing countries like India need help with plastic pollution due to ineffective and haphazard waste collection systems and low recycling rates. UNEP, in collaboration with the Government of India, set the theme for World Environment Day 2018 as an effort to provide technical assistance to support national and sub-national initiatives. Over the past few years, there has been increasing awareness and attention in the international community towards plastic pollution, encouraging individual, organizational, and government movements.

The next article from Unger C., Mar K. A., and Gurtler K. (2020), "A Club's Contribution to Global Climate Governance: The Case of the Climate and Clean Air Coalition" highlights the existence of the Climate and Clean Air Coalition (CCAC) which provides assistance finance, especially for developing countries to support emission reduction programs, build state capacity in handling waste, and other programs. In addition, CCAC facilitates funding from external sources such as the Green Climate Fund.

At the same time, "Waste Management: Developed and Developing Countries" by Rishabh Srivastava in 2019. They have mentioned that the ineffectiveness of waste handling is a significant challenge for society and carries risks for health and the environment. It causes water and soil pollution because the materials and chemicals can cause severe illness or death. Previously, Srivastava R. (2016) explained that countries suffer the consequences of poor waste handling, such as dirty roads and unpleasant odors in rural and urban areas. Strategies such as open waste burning, dumping in landfills, and indiscriminate waste disposal worsen the situation because they release chemicals into the air and soil. An effective waste management strategy is required, involving a coordinated system to control waste disposal to address this challenge effectively. Developed countries like Germany and the Netherlands have adopted sophisticated waste management systems to overcome waste problems. Germany succeeded in increasing recycling levels by 62% in 2010 and almost stopped sending waste to landfills or TPS. The Netherlands applies the "Lasnik's Ladder" principle: taking valuable components from waste. It banned Over 35 categories of waste in 1995 and introduced a waste tax to increase recycling rates from 45% to 50% from 2001 to 2009. By 2012, the Netherlands had established 12 waste disposal plants that helped 50,000 households in Amsterdam meet 25% of their heat needs through waste destruction. As a developing country, India has used various techniques such as aerobic and anaerobic compost and waste fuels such as biogas to manage municipal solid waste.

Another article, "The Paris Agreement on Climate Change and India," was written by Pushpa Kumar Lakhsmanan, Shachi Singh, and Asta Lakshmi Seetharaman in 2017. The authors explain that The Paris Agreement is a long-term program or roadmap that allows countries to exchange technology and ideas around climate change. India ratified the Paris Agreement on October 2, 2016. However, according to Lakshmanan P. et al. (2017), India's commitment to dealing with climate change does not arise from the Paris

Agreement but from the norms of Indian society that humans must live with nature and respect all that exists. Besides, the awareness that India's geographical location is vulnerable to climate change has made India issued policies and regulations to reduce emissions from industrial impacts, such as The Environment Protection Act 1981, National Environment Policy, the National Action Plan on Climate Change, and other policies; The intensity of emissions released was reduced by 12% from 2005 to 2010. However, India is still trying and committed to reducing emissions intensity by 35% before 2030.

The "Global Environmental Agenda: The Neoliberal Institutional Perspective," written by Rajnish Saryal (2015), argues that neoliberal institutionalism sees environmental issues as a potential area for international cooperation. They argue that global and domestic environmental issues must be managed without benefiting individual countries politically or competitively. Apart from countries, non-state actors and other actors are essential in working together to achieve environmental stability and sustainability. Klinger suggests that cooperation in international politics can occur despite its anarchic nature and does not depend solely on states' efforts. Neoliberal institutionalists see the international system as a network of interactions involving many actors, where cooperation is more than just the outcome of short-term interests. They have developed a comprehensive framework for studying and addressing environmental problems such as global warming, ozone layer depletion, and ocean pollution, offering potential solutions to these problems. Matthew Paterson favors a neoliberal institutional perspective over neorealism when analyzing international politics in the context of climate change. Saryal R. (2015) argues that neorealism is inadequate in explaining the political dynamics of climate change.

In contrast, neoliberal institutionalism, emphasizing institutions, offers a more comprehensive framework for understanding the factors that led to the creation of the United Nations Framework Convention on Climate Change. The works of Haas, Levy, Parson, Green, and Mitchell have shown that international environmental institutions have influenced the behavior of states and provided insight into the mechanisms used to do so. These findings provide an understanding of how international environmental institutions influence state actions.

Another article by Joana Castro Pereira (2015), "Environmental Issues and International Relations, a New Global (dis)order – the Role of International Relations in Promoting a Concerted International System," emphasized the need for multilateral governance effective way to address environmental challenges and states that the future of humanity depends on our ability to overcome these problems. In addition, the multidimensional nature of environmental problems, focusing on natural resources, and emphasizing the role of International Relations in understanding the dynamics of the international system and promoting sustainability through cooperation are also essential. Environmental issues involve several topics, especially security and the economy, which are essential to the country. The environment and natural resources are closely related to security, which is one of the controversial concepts in international politics. Pereira J. (2015) further said Environmental security expands the concept of security by considering the risks posed by environmental changes to the things people value. These risks include climate change, deforestation, land erosion and degradation, loss of biodiversity, air, land, and water pollution, and ozone layer depletion.

Meanwhile, "Preparing the playing field: Climate Club Governance of the G20, Climate, and Clean Air Coalition, and Under2 Coalition", written by Charlotte Unger and Sonja Thielges in 2021. Unger, C., & Thielges, S. (2021) states that UNEP formed CCAC to reduce the increase in global warming by reducing Short-Lived Climate

Pollutants (SLCP), such as black carbon, methane, hydrofluorocarbons, and tropospheric ozone. These pollutants have an impact on local and regional air quality. One way to achieve this goal is to address the issue of solid waste pollution because waste pollution sometimes creates landfills with large amounts of waste. This landfill then releases methane gas, which affects the air quality of the area and has the potential to accelerate climate change. To achieve this goal, CCAC facilitates policy development by assisting in developing policies related to SLCP at the national and local levels. The SLCP has also brought attention to previously neglected climate topics. Another major asset of CCAC is its ability to increase cooperation between countries, one of them is India.

Akhilesh Kumar and Avlokita Agrawal (2020), in their paper, "Recent Trends in Solid Waste Management Status, Challenges, and Potential for the Future Indian Cities – A Review." revealed the ineffectiveness of policy implementation in India even though it has been provided with knowledge and assistance from outside parties because only a few cities have succeeded in building efficient waste collection systems. Solid waste storage also poses challenges because collection transportation is incapable of daily collection. Secondary waste bins are also often overflowing with seepage water and are surrounded by informal waste workers who encounter animals such as stray dogs, cows, and rats. The solid waste transportation system is still in the development stage due to inadequate infrastructure. Decentralized waste processing is uncommon, mainly because densely populated urban areas lack available land. Inadequate planning and infrastructure for waste processing and recycling exacerbated the problem, as many waste processing plants became non-operational. Overall, the state of waste pollution and waste management in India remains unchanged in most areas.

All the literature above discusses environmental and pollution issues. Specifically, the developing country's challenges in dealing with the issue of urban solid waste pollution, international cooperation between countries and international institutions, the impact of waste pollution on health, and innovative solutions from developed countries are comparable for establishing country perspectives. They were developing while dealing with the issue of urban solid waste pollution and UNEP's role in helping India deal with pollution issues. This research aims to inform India of the United Nations Environment Program's efforts in dealing with urban solid waste issues.

3. Theoretical Framework

This research applies the theory of Neoliberal Institutionalism, which emphasizes the critical role of non-state actors such as UNEP in international forums. According to Robert Keohane, as the leading actor in international politics, countries aim to maximize profits and gain maximum benefit through cooperation rather than just relative advantage. Apart from that, non-state actors also influence the international political agenda and influence countries in politics. On the other hand, Robert Keohane admits that cooperation between countries is unpredictable because there is always the potential for non-compliance regarding the rules and regulations established by international institutions (Saryal R., 2015). The variables in Neoliberal Institutionalism are: firstly, institutions, which include international bodies. These entities influence the international agenda and move countries-secondly, norms, which relate to shared goals and standards of behavior in the global system. According to neoliberal institutionalism, institutions function to establish and reinforce these norms, which then regulate or direct the actions of states. Norms cover human rights and free trade. Thirdly, regulation

consists of rules and policies set by institutions to supervise various aspects of international relations, such as trade, environmental protection, or security. Fourthly, the level of cooperation between countries is a fundamental variable. Neoliberal Institutionalism emphasizes that states act as rational agents driven by their efforts to optimize their interests. Institutions are considered mechanisms that facilitate cooperation by providing platforms for negotiation, dispute resolution mechanisms, and opportunities for mutual benefit (Milner et al., A., 2009)

This research uses a qualitative method. In general, qualitative research methods are approaches used in social sciences and other disciplines to collect and analyze non-numeric data such as interviews, observations, and academic writings. Unlike quantitative research that focuses on numbers, qualitative research emphasizes the depth and richness of human experiences and the factors influencing them (Hamilton, A. B., & Finley, E. P., 2019). The author employs the technique of secondary data collection for this research. Secondary data collection involves gathering data that has already been collected by others for different purposes. Researchers use existing sources of information rather than collecting new data (Hox, J. J., & Boeije, H. R., 2005). The data gathered by the author includes academic journals, research, and relevant news from credible sources. Subsequently, the researcher employs the descriptive explanatory method to explain the efforts undertaken by UNEP to assist India in addressing urban solid waste issues, whether these efforts were successful or not, and the reasons behind it. Descriptive research aims to describe or define the topic under discussion. Meanwhile, explanatory research aims to explain why certain phenomena work the way they do (Dr. Mamik, 2014).

4. Discussion

UNEP's primary goal is to encourage international cooperation and provide policy guidance for environmental programs within the UN system. In achieving these goals, UNEP has successfully coordinated policies through several Multilateral Environmental Agreements (MEAs) and monitoring bodies. In addition, UNEP has played an essential role in establishing international agreements on the ozone layer, regulating chemicals and hazardous waste, and climate change. Currently, UNEP's leading role focuses on sustainable development, with its primary responsibility being to ensure environmental aspects are integrated into all sustainable development policies in the UN system (Kumar R., 2020).

The implementation of India's environmental policies employs diverse strategies to involve and educate its citizens. The following are various aspects of how these policies are executed:

1. Raising Awareness: The government conducts extensive awareness campaigns to educate citizens on environmental issues and the significance of sustainable practices. These campaigns may encompass advertisements, workshops, and educational programs held in schools and community centers.
2. Encouraging Public Participation: India promotes public involvement in environmental initiatives, ranging from citizens actively participating in tree planting initiatives to engaging in local waste management projects. The Swachh Bharat Abhiyan, for instance, witnessed widespread citizen engagement in cleanliness drives and the construction of toilets.
3. Ensuring Regulatory Compliance: Environmental policies often entail regulations and standards that individuals and industries must adhere to. Monitoring bodies,

such as the State Pollution Control Boards, oversee compliance and take necessary actions against violators.

4. Balancing Incentives and Penalties: The government may introduce incentives for individuals and businesses adopting eco-friendly practices. Conversely, penalties are imposed for non-compliance with environmental regulations. This dual approach aims to motivate citizens and industries to align with sustainable practices.
5. Education and Training Initiatives: Integrating environmental education into school curricula and vocational training programs helps foster a culture of environmental responsibility. This empowers citizens with the knowledge needed to make informed choices regarding their impact on the environment.
6. Promoting Waste Management at the Community Level: Initiatives for waste segregation and management at the community level are encouraged to alleviate the burden on landfills. For example, the Swachh Bharat Abhiyan emphasized proper waste disposal practices and cleanliness at the grassroots level.
7. Utilizing Digital Platforms: The use of digital platforms and mobile applications aids in disseminating information and encouraging citizen engagement. These platforms often provide real-time updates, tips, and resources related to environmental conservation.
8. International Collaboration: India collaborates with international organizations, such as the United Nations Environment Programme (UNEP), to gain insights into global best practices. This knowledge is then conveyed to citizens through various communication channels.
9. Support from Policy Advocacy Groups: Non-governmental organizations (NGOs) and environmental advocacy groups play a vital role in complementing government efforts. Often working at the grassroots level, they conduct awareness programs and involve communities in sustainable practices.
10. Fostering Government-Community Partnerships: Collaborations between the government and local communities are essential. Initiatives like watershed management or afforestation programs often include local communities, making them integral stakeholders in the success of environmental policies.

There are mixed responses regarding the NAPCC. Some of the responses are from Sunita Narain, Director of the Centre for Science and Environment, underscores in an editorial that India's plan envisions a distinct growth trajectory, leaping to a low-carbon economy through advanced technologies. The plan outlines eight missions to be detailed and monitored by the PM's council for climate change. However, Narain criticizes the plan for its lack of clarity on India's global role in addressing the climate crisis, emphasizing India as a victim rather than a major emitter. Sudhirendar Sharma, a water expert, criticizes the plan for uninspired ideas prioritizing economic development over emission reduction targets. Independent journalist Rahul Goswami contends that the National Action Plan on Climate Change lacks a well-articulated vision, urging a policy that learns from contemporary Indian experiences. The Indian Express reports India's cautious approach in climate change negotiations, aligning with its belief in "common and differentiated responsibility." Greenpeace applauds the plan's focus on solar energy but criticizes its lack of ambition in energy efficiency. FICCI supports the plan's market-based mechanisms for energy efficiency, while WWF-India views it as comprehensive, commending India's commitment to a low-carbon energy path and balanced mitigation and adaptation (Pandve, H. T., 2009).

Neoliberal institutionalism emphasizes that international organizations can influence state behavior. In this regard, UNEP can design programs and strategies to

promote waste reduction, recycling, and sustainable waste management practices in India. In addition, UNEP can provide technical expertise, financial support, and assistance in building India's capacity to formulate and implement effective waste management policies. This financial support can be from a third person through UNEP or UNEP itself. Neoliberal institutionalism also argues that the state is a rational actor driven by its interests. In the context of waste management, India can ideally address the issue of urban solid waste pollution on its own. However, Indian government efforts have been less comprehensive because they are hampered by inadequate technology and take too long, so the negative impact continues to grow. By collaborating with UNEP, India will receive assistance through dialogue and forums organized by UNEP. Then, countries gain knowledge through their involvement in international institutions. In keeping with neoliberal institutionalism, as India engaged in cooperative efforts with UNEP and other countries in waste management, it gained insight into practical strategies, technological advances, and policy approaches. This learning process may improve India's waste management practices over time.

India chose to collaborate with UNEP because, apart from the historical aspect, this international Institution has extensive knowledge and expertise on waste management procedures, policies, and technologies. UNEP also serves as a platform for global collaboration, facilitating knowledge exchange and policy discussions between countries. By leveraging its global network, UNEP can connect India with other countries facing similar waste management problems, enabling the sharing of insights and technologies gained. UNEP evaluations and reports on waste management provide policy recommendations based on existing practices in developing and developed countries. By taking these suggestions as a reference, India can improve its policy framework regulatory measures and raise awareness about sustainable waste management practices. However, UNEP has no program expressly set up for India or any other country because international organizations are vulnerable to failure in situations where they attempt to manage a complex system of relationships and issues and when they function as a substitute for a more substantial and sustainable solution to a domestic or foreign problem or policy (Gallarotti et al., 1991).

India, like other member countries, gains various advantages through its participation in the United Nations Environment Programme (UNEP). UNEP serves as a global platform for collaborative efforts on environmental issues, allowing India to engage with other nations, share experiences, and work together to address common challenges. The benefits include access to valuable resources, technical expertise, and knowledge related to environmental conservation, sustainable development, and climate change. UNEP supports capacity-building initiatives, providing training programs and workshops to enhance environmental governance. India can receive policy guidance, aligning its environmental policies with global sustainability goals and contributing to international initiatives. Through UNEP, India actively participates in global campaigns, gains access to research findings, and enhances its international recognition in environmental matters. Additionally, UNEP provides networking opportunities, fostering collaboration, partnerships, and the exchange of ideas among countries, organizations, and experts. The benefits extend beyond immediate gains, contributing to the long-term sustainability of the planet. The specific outcomes for India depend on its active engagement, contributions, and the success of collaborative efforts within the UNEP framework. For the latest and detailed information, checking official statements, reports, and updates from relevant government sources is recommended.

In addressing waste pollution, India and UNEP have several similar goals. Firstly, India and UNEP both recognize the importance of managing waste to minimize negative

impacts on the environment and human health. Second, India and UNEP are trying to establish and implement policies and regulations related to waste management. UNEP facilitated the establishment of international agreements, while India developed a domestic waste management policy to control waste disposal, recycling, and management. Third, UNEP provides technical assistance and capacity-building support to countries, including India, to improve their infrastructure and waste management capabilities.

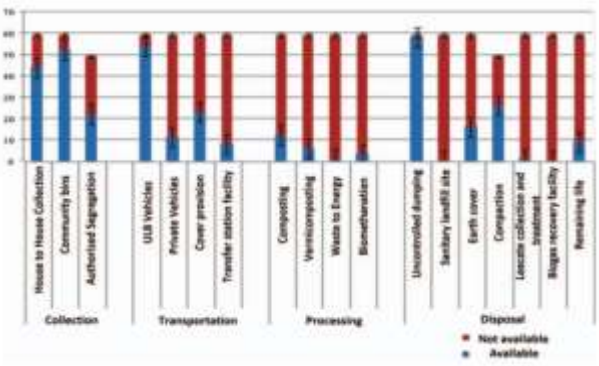
Meanwhile, India invests in infrastructure development and technical expertise to improve waste management practices. Fourth, both India and UNEP are encouraging waste reduction strategies and promoting recycling to reduce the volume of waste generated. Fifth, UNEP facilitates international cooperation and collaboration between countries, including India, to address transboundary waste issues and promote best practices in waste management. Furthermore, India actively participates in the conventions and dialogue provided. Sixth, India and UNEP are trying to increase public awareness about the importance of waste management with educational campaigns. Through this collective approach and goals, India and UNEP collaborate to address waste pollution.

If a country fails to achieve its targets or violates a contract, UNEP cannot impose penalties because it does not have the authority to enforce them. After all, UNEP is not a law enforcement agency. However, the international community can respond to such failures or violations in several ways. UNEP member countries can apply diplomatic pressure to countries that do not comply, with the aim of encouraging them to return to compliance with regulations through bilateral dialogue and international discussions. Also, countries that violate the agreement risk damaging their reputation and reducing trust within the international community, which could have consequences for future diplomatic interactions.

On the other hand, if a country succeeds in achieving the given targets, the country will gain recognition from the global community and relevant international actors. This recognition can appear in official statements, awards, and public recognition. This country can also be used as a role model as an example of success on international stages and platforms. Finally, countries that successfully achieve their targets can strengthen their position in the relevant international organization. Their experiences may lend authority to their policy suggestions.

5. Conclusion

The situation of India's waste management can be seen through the figure



Made by: Kodali, R. K., & Gorantla, V. S. K., 2017. although the figure was taken from 2017.

UNEP's efforts to help India address its urban solid waste problem include a range of strategies focused on improving waste management practices, reducing environmental pollution, and promoting sustainable development. The assistance is the first technical and capacity building provided through a knowledge-sharing platform, assisting the Indian government with innovative waste management systems. By collaborating with the Indian government, India received assistance in establishing a policy and regulatory framework based on international standards. Second, promoting waste reduction and public awareness campaigns on responsible waste disposal practices.

Additionally, UNEP's support in India's efforts to tackle waste pollution could significantly contribute to reducing the impacts of climate change. How can that be realized? Firstly, by implementing good waste management practices and converting waste to energy, India can reduce methane emissions from organic waste. Secondly, minimizing the accumulation of waste in landfills because by adopting a sound waste management system such as recycling and turning waste into compost, India can reduce the need for landfills, which release methane and other dangerous gases. Third, UNEP encourages the adoption of circular economy principles that prioritize waste reduction and resource efficiency. Fourth, UNEP supports the development of technology that can convert waste into energy. With this technology, countries can reduce fossil fuel dependence and greenhouse gas emissions. Fifth, through education, UNEP increases public understanding of the link between waste pollution and climate change. It also encourages responsible waste management.

To help India overcome the problem of urban solid waste pollution, UNEP faced several obstacles or obstacles. One of the main ones lies in the need for more capacity of local parties in India in managing urban solid waste. Many urban areas across India need more infrastructure and resources for waste collection and disposal. As a result, only a tiny portion of the solid waste generated is collected and recycled with an even smaller amount. This lack of capacity reduces the impact of UNEP's efforts to assist in improving the quality of waste management. Additionally, socio-economic factors also influence the solid waste disposal system in India. Low-income levels are associated with poor waste management practices, as they usually have lower awareness and knowledge about waste management. Also, India's government seems to prefer expanding landfills than waste reduction or recycling as seen in the figure below. The figure was made by Kodali, R. K., & Gorantla, V. S. K., 2017.

On the other hand, higher income levels provide individuals with more resources to invest in waste reduction technologies or participate in recycling activities. Education also plays a vital role in waste pollution, as it can provide individuals with knowledge about the environmental impacts of waste pollution and promote the adoption of sustainable waste management practices. These aspects need to be considered when designing waste management strategies and have the potential to influence the effectiveness of UNEP assistance.

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