

Plastic Waste Policies and Informal Waste Pickers: A Policy Gap Analysis in Sri Lanka

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Abstract— The rapid increase in plastic waste has made effective plastic waste management a pressing necessity in Sri Lanka. Informal waste pickers contribute significantly to this process by collecting, sorting, and recycling a substantial portion of plastic waste. Despite their critical role, the extent to which national policies recognize and support these workers remains unclear. This study investigates the inclusion or exclusion of informal waste pickers within Sri Lanka's plastic waste management policies, with a focus on the presence of livelihood protection measures, institutional mechanisms for participation, and potential risks of penalization. Using content analysis of existing policy documents, the findings reveal a lack of formal recognition or support for informal waste pickers. The study highlights the urgent need for policy reforms, including amendments to the National Action Plan on Plastic Waste Management and the integration of financial compensation mechanisms under Extended Producer Responsibility (EPR) frameworks. By addressing these gaps, Sri Lanka can advance towards a more inclusive, efficient, and sustainable plastic waste management system that aligns with global best practices and social equity goals.

Keywords: Informal Waste Pickers, Plastic Waste Management Policy, Sustainable Development

I. INTRODUCTION

Plastic waste management has emerged as a critical environmental and public health challenge in Sri Lanka, with the country generating approximately 1.59 million metric tons of plastic waste annually [1]. National policies such as the National Action Plan on Plastic Waste Management [2] and the proposed Extended Producer Responsibility (EPR) frameworks aim to curb plastic pollution. In Sri Lanka, these workers collect, sort, and recycle an estimated 30% of plastic waste [3]. Despite their vital role, waste pickers often operate outside the formal waste management system and face social stigma, economic vulnerability, and health risks [3][4].

This study examines the extent to which plastic waste management policies in Sri Lanka include or exclude informal waste pickers, focusing on the presence of livelihood protection measures, institutional mechanisms for participation, and potential risks of penalization within these policies. By reviewing existing policy documents, the paper highlights systemic oversights that undermine both

environmental sustainability and social equity. The findings aim to inform inclusive policy reforms that align Sri Lanka's approach with global best practices and the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production).

II. LITERATURE REVIEW

A. Informal Waste Pickers

Informal waste pickers are defined as individuals engaged in the collection, sorting, and recycling of waste materials in public spaces and landfills, operating independently or in small groups [8]. Globally, waste pickers handle a significant portion of recyclable materials, particularly in developing countries where formal waste management systems are lacking or inefficient [9]. In many developing countries, the informal sector plays a pivotal role in collecting, sorting, and recycling waste, including plastics [10][11]. However, these essential contributors often face social stigma, economic insecurity, and health risks due to their work conditions and lack of legal recognition [12]. The transition to a circular economy necessitates collaboration among various stakeholders to create a cohesive strategy that fosters innovation and resilience in waste management systems [13]. Informal waste pickers recover valuable materials from waste streams, contributing to resource efficiency and reducing the amount of waste sent to landfills [14]. This engagement not only reduces the burden on municipal waste management systems but also creates economic opportunities for marginalized communities.

Integrating the informal sector into general waste management can establish an effective waste recycling system and improve the livelihoods of those involved [15]. Waste pickers often work in hazardous conditions, lack social protection, and face discrimination and marginalization [16]. Despite their significant contribution, waste pickers are often excluded from formal waste management systems and lack recognition and support from governments and policymakers. In some African countries, a significant percentage of plastic waste is collected by the informal sector, highlighting their importance in waste management [17]. Recognizing the importance of the informal sector and providing it with fair wages and

social protection can significantly improve waste management outcomes and reduce environmental pollution [18][19][20].

Integrating the informal sector into waste management planning—by building on their practices and experience while working to improve the efficiency, as well as the living and working conditions of those involved—should be a key priority [21]. One of the goals of modern waste management is to move up the waste hierarchy—reducing reliance on disposal and increasing recycling. It would therefore be ironic to pursue progress by deliberately eliminating what is often an efficient, existing recycling system [21].

B. Plastic Waste Related Policies

Globally, various policy approaches have been adopted to address the growing problem of plastic waste, ranging from bans and restrictions on single-use plastics to extended producer responsibility schemes and promotion of recycling initiatives. Many countries have implemented bans or taxes on single-use plastics, such as plastic bags, straws, and cutlery, to reduce consumption and promote the use of more sustainable alternatives [22]. Extended Producer Responsibility schemes hold producers accountable for the end-of-life management of their products, incentivizing them to design products that are easier to recycle and reduce waste [23]. Some nations are actively integrating the plastic waste circular economy into broader renewable energy development plans, showcasing innovative approaches to waste management [24]. These policies aim to create a closed-loop system where materials are continuously recycled and reused, minimizing waste and resource depletion [25].

Policy measures are essential for the management of plastic waste and mitigation of its generation and should be enforced at all stages of collection, storage, transportation, and final disposal or recycling [26]. A combination of solutions and strategies is needed at different levels of the plastic management service chain for sustainable intervention, including waste reduction, control strategies, and clearly defined roles and responsibilities [27]. Prioritizing policies that instill individual behavioral, social, and institutional changes can also reduce plastic pollution and promote sustainable plastic waste management technologies [28].

Sri Lanka has implemented a range of laws, regulations, and policies to address plastic pollution. These measures can be categorized into command-and-control instruments, market-based mechanisms, information disclosure requirements, and provisions for governance and coordination. Table 1 provides an overview of these policies. The regulatory frameworks address various stages of the plastic lifecycle—including manufacturing, consumption, waste management, and trade. However, a significant gap remains in the regulation of primary plastic polymer production, for which no specific policies or regulations currently exist in the country [29].

TABLE 01: Policy Overview in Sri Lanka [29]

	Production	Manufacturing	Consumption	Waste Management	Trade
Command and Control		B, E, F, G, J	E, F, G, I, J, K	H, A	E, F, G, J
Market-based		A	C		
Information		D		A	
Governance/Coordination		A	A	A	

- A. National Action Plan on Plastic Waste Management 2021–2030
- B. National Environmental Regulations (Plastic Material Identification Standards) (2021)
- C. National Policy on Green Procurement 2023)
- D. National Environmental (Plastic Material Identification Standards) Regulations (2021)
- E. Prohibition of Polythene or any polythene product of 20 micron or below in thickness (Order No. 2034/33) (2017)
- F. Prohibition of food wrappers from polythene (Order No. 2034/34) (2017)
- G. Prohibition of high-density polyethylene bags (Order No. 2034/35) (2017)
- H. Prohibition of open burning of refuse and other combustible matters including plastics (Order No. 2034/36) (2017)
- I. Prohibition of all forms of polyethylene, polypropylene, polyethylene products or polypropylene products as decoration (Order No. 2034/37) (2017)
- J. Prohibition of food containers, plates, cups and spoons from expanded polystyrene (Order No. 2034/38) (2017)
- K. Banning the Use of PET/PVC for Packing Agrochemicals (Order No. 2211/51) (2017)

Sri Lanka's legal and regulatory framework for plastic waste management is primarily grounded in the National Environmental Act No. 47 of 1980. Although the Act does not contain detailed provisions specific to plastics, it includes two key regulatory instruments relevant to the sector: the Environmental Protection License (EPL), mandated under Section 23A (2008) for industries potentially harmful to the environment, and the Environmental Impact Assessment (EIA), which is required for industrial projects, including those involving plastic manufacturing, to assess and mitigate environmental impacts. Beyond these general mechanisms, Sri Lanka has introduced a series of targeted bans on problematic plastic products. Beginning in 2017, a set of orders under the National Environmental Act prohibited the manufacture, sale, and use of specific plastic items, such as polythene products with a thickness of 20 microns or less, polythene food wrappers, high-density polyethylene bags, and expanded polystyrene containers and utensils. Additional bans included the use of polyethylene and polypropylene products for event decorations. In 2021, further regulations were introduced to prohibit the use of PET and PVC in agrochemical packaging, as well as small-volume sachets, inflatable toys, and cotton buds with plastic stems. Collectively, these regulations reflect a policy focus on restricting specific high-impact plastic items rather than comprehensively regulating the entire plastic lifecycle or the production of primary plastic polymers.

III. METHODOLOGY

This study employs a qualitative policy analysis to assess the inclusion of informal waste pickers in plastic waste management framework in Sri Lanka by examining the policy documents (from A to K) mentioned above. The analysis focuses on identifying explicit recognition of waste pickers (Does the policy mention informal waste pickers as stakeholders?), livelihood protection measures (Are there provisions for fair wages, safe working conditions, or social security?), institutional mechanisms for participation (Does the policy facilitate waste picker participation in decision-making (e.g., cooperatives, EPR committees?), and potential penalization risks within these policies (Do regulations indirectly criminalize or displace waste pickers (e.g., dump bans, privatization of waste collection?). The terms “informal waste pickers,” “recyclers,” “cooperatives,” and “livelihoods” were used to identify relevant clauses.

Content analysis was carried out by two independent coders. The primary source of data is the policy documents published by the government, which is listed above from A to K.

IV. FINDINGS

Table 02 indicates the results of the content analysis.

TABLE 02: Policy Analysis

Policies	Criteria			
	1	2	3	4
A	X	X	X	X
B	X	X	X	X
C	X	X	X	X
D	X	X	X	X
E	X	X	X	X
F	X	X	X	X
G	X	X	X	X
H	X	X	X	X
I	X	X	X	X
J	X	X	X	X
K	X	X	X	X

1. Explicit recognition of waste pickers (Does the policy mention informal waste pickers as stakeholders?)
2. Livelihood protection measures (Are there provisions for fair wages, safe working conditions, or social security?)
3. Institutional mechanisms for participation (Does the policy facilitate waste picker participation in decision-making (e.g., cooperatives, EPR committees?)
4. Potential penalization risks within these policies (Do regulations indirectly criminalize or displace waste pickers (e.g., dump bans, privatization of waste collection?).

The comprehensive review of plastic waste management policies in Sri Lanka revealed a striking absence of provisions addressing informal waste pickers across all four assessment criteria. None of the analyzed documents – from A to K - contain any mention of informal waste pickers as stakeholders in

the waste management system. This omission stands in stark contrast to progressive policies in countries like Brazil and India that formally recognize waste pickers' contributions [7][8].

The complete lack of livelihood protection measures in these policies is particularly concerning. While the 2017 prohibition orders effectively banned certain plastic products, they failed to account for how these restrictions would impact waste pickers who rely on collecting these materials. The policies contain no provisions for fair compensation, workplace safety standards, or social security benefits for this vulnerable workforce. This oversight perpetuates the economic insecurity faced by informal waste pickers and ignores their essential role in the recycling ecosystem in Sri Lanka.

Equally troubling is the absence of institutional mechanisms that would enable waste picker participation in decision-making processes. The National Action Plan's discussion of stakeholder engagement does not refer to including waste picker representatives in policy formulation or implementation. This exclusion means that the individuals most directly affected by waste management policies have no formal voice in shaping them.

Several policies may inadvertently criminalize or disadvantage waste pickers. The ban on open burning, while environmentally necessary, does not distinguish between intentional burning and accidental fires at dump sites where pickers work. Similarly, the emphasis on formal waste management systems in these policies could further marginalize informal collectors by favoring private companies and municipal services.

V. DISCUSSION

This systemic exclusion has significant implications for both social justice and environmental sustainability. By failing to recognize the contributions of waste pickers, Sri Lanka misses an opportunity to harness their expertise and labor in achieving its waste reduction goals. The narrow focus of the policies on product bans and corporate responsibility creates implementation gaps, as they ignore the grassroots actors who currently handle a substantial portion of recyclable materials.

The findings underscore the urgent need for policy reforms that would bring Sri Lanka in line with international best practices. Countries that have successfully integrated waste pickers into their waste management systems have seen improvements in both recycling rates and worker livelihoods. Policies of Sri Lanka must evolve to include legal recognition of waste pickers, protections for their livelihoods, and mechanisms for their meaningful participation in the waste management sector. Such reforms would not only promote social equity but also strengthen the country's ability to meet its plastic waste reduction targets.

The exclusion of informal waste pickers from Sri Lanka's plastic waste management policies presents both a challenge and an opportunity to advance Sustainable Development Goals (SDGs) 8 (Decent Work and Economic Growth) and 12 (Responsible Consumption and Production). Currently, the lack of legal recognition and livelihood protections for waste pickers undermines SDG 8 by perpetuating informal, precarious work without fair wages or social security. Simultaneously, the failure to integrate these workers into the recycling economy hinders SDG 12, as their untapped potential could significantly improve plastic waste recovery rates and reduce environmental harm. Policy reforms—such as formally recognizing waste pickers in the National Action Plan, linking them to Extended Producer Responsibility (EPR) schemes, and establishing cooperatives—could simultaneously promote decent work (SDG 8) by providing stable incomes and safer working conditions, while also enhancing sustainable waste management (SDG 12) by optimizing recycling efficiency. By aligning Sri Lanka's policies with inclusive models from Brazil and India, the country can transform its informal waste sector into a driver of both economic empowerment and circular economy principles, ensuring progress toward these interconnected SDGs.

To address the exclusion of informal waste pickers and align Sri Lanka's plastic waste management system with sustainable development principles, the following policy reforms are recommended: First, the National Action Plan on Plastic Waste Management should be amended to formally recognize waste pickers as essential stakeholders in waste collection and recycling processes. Second, Extended Producer Responsibility (EPR) regulations must incorporate mechanisms to financially compensate waste pickers through cooperative models, ensuring fair wages and social protections. Third, Sri Lanka can emulate successful strategies from other developing nations by implementing targeted programs for upskilling waste pickers, improving working conditions, and providing access to healthcare and education [30]. Fourth, local authorities should partner with NGOs and community-based organizations to create inclusive waste management plans that empower waste pickers and promote community participation in reducing plastic waste [4]. Ultimately, integrating informal waste pickers into the formal waste management system will not only improve their livelihoods but also enhance the effectiveness and sustainability of plastic waste management in Sri Lanka [31]. It's imperative to generate reliable statistics and baseline data on the socio-economic conditions of waste pickers to design and implement risk prevention programs and continuous health monitoring [32].

While this policy analysis provides critical insights into the exclusion of informal waste pickers from plastic waste management framework in Sri Lanka, it has certain limitations. The study relied solely on document reviews, which, while valuable for identifying policy gaps, do not capture the lived realities of waste pickers, including their working

conditions, economic struggles, and interactions with formal waste systems. Field studies involving interviews and surveys with waste pickers, municipal authorities, and industry stakeholders are necessary to fully understand the socio-economic impacts of these policy exclusions. Additionally, this research focused on domestic policies in Sri Lanka without a detailed comparative analysis of successful waste picker integration models, such as those in India (EPR-linked payments) and Brazil (waste picker cooperatives). Future studies could bridge this gap by examining how Sri Lanka might adapt such proven frameworks to its local context, ensuring more inclusive and effective waste management policies.

VI. RECOMMENDATIONS AND CONCLUSION

To ensure a more inclusive and effective plastic waste management system, Sri Lanka should urgently reform its policies to formally recognize informal waste pickers as key stakeholders. This includes amending the National Action Plan on Plastic Waste Management to integrate waste pickers into collection and recycling processes, incorporating Extended Producer Responsibility (EPR) schemes that provide financial compensation and social protections through cooperative models, and implementing targeted programs for upskilling, healthcare access, and education. Partnerships with NGOs and community-based organizations should be fostered to promote inclusive local waste management strategies. Furthermore, generating reliable baseline data on the socio-economic conditions of waste pickers is essential for developing risk prevention and health monitoring programs. By adopting best practices from countries like India and Brazil, Sri Lanka can enhance recycling efficiency, support decent livelihoods, and advance progress toward SDGs 8 and 12.

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