



SEPTEMBER 2024

CURBING PLASTIC POLLUTION IN BANGLADESH

Prepared by :

M Zakir Hossain Khan

Curbing Plastic Pollution in Bangladesh

Bangladesh faces a severe plastic pollution crisis, fueled by a rapid increase in plastic consumption and inadequate waste management infrastructure. The country's per capita plastic use has tripled in the last 15 years, with urban areas experiencing even higher consumption rates. Despite existing regulations like the ban on thin plastic shopping bags in 2002 and the Jute Packaging Act of 2010, plastic waste continues to accumulate in landfills, waterways, and the Bay of Bengal.

A survey conducted in 2022 by Change Initiative, involving 1146 respondents nationwide, revealed alarming insights into the prevalence and consequences of plastic pollution. 40% of respondents reported seeing polythene bags scattered throughout their localities, while 35% acknowledged the increasing plastic pollution problem. The survey highlighted the dire consequences of plastic pollution, with respondents identifying navigability crises in water bodies and waterlogging issues as major concerns. Specifically, respondents from Mymensingh, Rangpur, Barisal, Chattogram, and Narayanganj pointed to navigability crises, while those from Khulna, Sylhet, Rajshahi, Feni, Dhaka, and Gazipur highlighted waterlogging as major problems caused by plastic waste.

These findings, along with the growing global momentum to combat plastic pollution, have led to increased calls for a complete ban on single-use plastic in Bangladesh. The government is actively considering a ban on single-use plastic by 2025, aiming to reduce the country's plastic footprint and protect its environment and public health. This section presents a set of actionable recommendations, categorized by timeframe and responsible entities, to create a sustainable solution for curbing plastic pollution in Bangladesh.

Recommendation	Concerned Entities	Description
1. Immediate Actions (0-12 Months)		
1.1. Strengthen Enforcement of Existing Bans with Dedicated "Polythene Enforcement Task Force"	Department of Environment (DoE), Local Government Division, City Corporations	Despite the 2002 ban on thin plastic bags and the 2020 High Court order banning single-use plastics in coastal areas, enforcement remains weak (Hasan, 2023). Immediate and visible action may include <ul style="list-style-type: none"> Highly publicized raids on markets and businesses known to distribute polythene bags. Impose significant fines, e.g. starting at 500,000 Taka for first-time offenders, with the provision of progressive penalties for repeat violations. Publicly announce or naming and shaming the names of businesses identified in violation of the ban through press releases and social media.
1.2. Launch a Youth Led Targeted Awareness	Ministry of Environment, Forest and Climate	Partner with popular youth influencers and environmental NGOs to create a viral social media challenge encouraging young people to reduce their

Recommendation	Concerned Entities	Description
Campaign: “Plastic-Free Bangladesh” starting with major urban cities.	Change (MoEFCC), Ministry of Youth and Sports, NGOs, Youth Organizations	<p>plastic consumption and share their "plastic-free-Bangladesh" actions.</p> <ul style="list-style-type: none"> • Create a dedicated social media campaign e.g. hashtag #PlasticFreeBD and encourage participants to post videos and photos of their efforts to reduce plastic use. • Establish a "Plastic Waste Innovation Challenge" for the youth. • Partner with schools and universities to organize knowledge and practice events e.g. "Plastic-Free Days", quiz competitions, person of non-plastic etc..
1.3. Piloting Alternatives to Single-Use Plastics in Controlled Environment such as Tourist Hotspots, Private University, Government office	Ministry of Tourism, City Corporations, Local Businesses, Social enterprises specializing in sustainable alternatives	<p>Piloting "Plastic-Free Zones" in controlled environments like Saint Martin's Island can provide valuable insights. Alternative may include clay cups, bamboo straws, paper plates, and biodegradable packaging (Bhuyan, 2022). Actions can be following :</p> <ul style="list-style-type: none"> • Establish water refill stations and partner with hotels and restaurants to provide reusable bottles to guests. • Provide incentives (e.g., tax breaks, subsidies) to Greenpreneurs that adopt and promote alternatives like reusable bottles, biodegradable packaging, and bamboo cutlery.
2. Medium-Term Strategies (12-24 Months)		
2.1. Develop a Comprehensive National Plastic Strategy and/or Roadmap with SMART Objectives/Target	Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Industries, relevant stakeholders	<p>A comprehensive Strategy and/or Roadmap, encompassing production, consumption, waste management, and recycling, will provide a clear roadmap for action. The policy should include specific targets. Stakeholder consultations are crucial to ensure buy-in and effective implementation. Measurable Targets such as:</p> <ul style="list-style-type: none"> • Establish at least three plastic-free zones in major cities by 2025 • Increase plastic recycling to 25% by 2025. • Reduce virgin plastic production by 30% by 2026. • Phase out at least five categories of high-impact single-use plastics (e.g., plastic bags, straws, cutlery, packaging) by 2027.
2.2. Implement a Mandatory Extended	Ministry of Environment, Forest and	EPR shifts the responsibility for plastic waste management from solely the government and citizens to the producers. It incentivizes companies to design

Recommendation	Concerned Entities	Description
Producer Responsibility (EPR) with legislation	Climate Change (MoEFCC), Ministry of Industries, Private Sector	<p>more sustainable packaging, invest in recycling, and collaborate on waste collection (World Bank, 2021).</p> <ul style="list-style-type: none"> Require producers to register with the DoE and submit annual reports on their plastic footprint and EPR contributions. Establish a "Plastic Waste Management Fund" financed by producer contributions and/or pollution tax/fees, based on the volume and type of plastic they produce or import. Pilot the EPR program with large-scale plastic producers (e.g., beverage companies, packaging manufacturers) in Dhaka and Chittagong to assess the effectiveness of the system and identify any challenges.
2.3. Promote Source Segregation Nationwide with Community Led Programs	Local Government Division, City Corporations, Community Organizations, Waste Management Companies	<p>Effective recycling relies on separating plastic waste from other waste streams. Providing economic incentives for separated plastic waste can encourage participation. (ESDO, 2020). Actions includes</p> <ul style="list-style-type: none"> Nationwide community-led program that focuses on source segregation, composting, and community-based recycling initiatives. Establish "Waste Wise Committees" in every ward or village, composed of local residents, youth leaders, and representatives from local government. Organize regular community cleanup drives and competitions to promote participation and create awareness.
3. Long-Term Vision (2-5 Years)		
3.1. Achieve Accelerate the Transition to a Circular Economy for Plastic	Ministry of Industries, in collaboration with the MoEFCC, the Ministry of Science and Technology, and the private sector	<p>Implement a multi-pronged approach to transition from a linear "take-make-dispose" model to a circular economy where plastic is used responsibly, reused, and recycled continuously.</p> <ul style="list-style-type: none"> Support the development and adoption of advanced recycling technologies, such as chemical recycling (pyrolysis) Create a platform that connects plastic waste generators with recyclers and manufacturers, facilitating the trade of plastic waste as resource. Establish a dedicated "Circular Economy Innovation Fund" through a combination of foreign investment Philanthropic funds, CSR,

Recommendation	Concerned Entities	Description
		private sector investment, and international grants to support research, development, and implementation of circular economy solution
3.2. Invest in Research and Development on Alternative Green Products	The Ministry of Science and Technology, in partnership with MoEFCC and leading universities and research institutions	Investing in R&D for sustainable plastic alternatives, biodegradable plastics, and innovative recycling technologies is crucial for long-term solutions. This includes exploring the potential of bioplastics derived from locally sourced materials like jute and researching technologies like pyrolysis for converting plastic waste back into valuable resources. Public-private partnerships can play a key role in driving innovation and commercialization. (Mim et al., 2024)
3.3. Strengthen Regional Efforts to Combat Plastic Pollution in the Bay of Bengal and South Asia Region	Ministry of Foreign Affairs, Ministry of Environment, Forest and Climate Change (MoEFCC), Regional and International Organizations	<p>Transboundary plastic pollution requires regional collaboration. Bangladesh should actively engage in international forums, like the UN Environment Assembly and SACEP, to advocate for stronger agreements, share best practices, and access international funding and technology for plastic waste management. The ongoing negotiations for a global plastic treaty offer a significant opportunity for Bangladesh to contribute to a comprehensive solution. (MoEFCC, 2023). Visible Actions can be</p> <ul style="list-style-type: none"> • Organize Regional Summit: Host a regional summit with neighboring countries (India, Nepal, Myanmar) to develop a joint action plan for reducing plastic pollution in the Bay of Bengal. • Establish a Regional Monitoring Program: Collaborate on a shared system for monitoring and assessing plastic pollution levels in the Bay of Bengal to track progress and identify hotspot
3.4 Develop a National "Plastic Footprint" Labeling System	The Ministry of Commerce, in collaboration with MoEFCC, Bangladesh Standards and Testing Institution (BSTI) and consumer	<p>Introduce a mandatory labeling system that requires all consumer products to display their "plastic footprint," indicating the amount and type of plastic used in packaging.</p> <ul style="list-style-type: none"> • Establish a standardized methodology for calculating the plastic footprint of products. • Mandate the display of the plastic footprint on product labels, using a simple and easy-to-understand format (e.g., a color-coded system or a numerical score).

Recommendation	Concerned Entities	Description
	protection agencies	<ul style="list-style-type: none"> • Offer incentives (e.g., tax breaks, preferential treatment in government procurement) to companies that demonstrate significant reductions in their plastic footprint.

References:

- Bhuyan, M. S., Haider, S. M. B., Das, M. K., Mojumder, I. A., Das, M., & Islam, M. T. (2022). Identifying threats and reduction measures of emerging plastic pollution in the coral-bearing St. Martin's Island, Bangladesh. *The Journal of NOAMI*, 37(1-2), 103–121.
- ESDO. (2020). COVID-19 pandemic pushes single-use plastic waste outbreak: No management, no protection: High health and environmental risk unveil. Environment and Social Development Organization- ESDO.
- Hasan, S. R. (2023, June 4). Ban on single-use plastic: No visible step to enforce HC order. *The Daily Star*. Retrieved from <https://www.thedailystar.net/news/bangladesh/news/ban-single-use-plastic-no-visible-step-enforce-hc-order-3338746>
- Khatun, F., & Mahbub, A. (2023, June 11). Reduce, reuse, recycle, reinvent: Bangladesh's urgent need for change. *The Prothom Alo*. Retrieved from <https://en.prothomalo.com/opinion/op-ed/9oqx3ofdnc>
- Mim, F. I., Islam, M. J., & Abdullah, M. S. (2024). Plastic tsunami: Bangladesh's maritime ecosystem under siege. *Environmental Forensics*, 1–4. <https://doi.org/10.1080/15275922.2024.2330026>
- Ministry of Environment, Forest and Climate Change. (2021). National Action Plan for Sustainable Plastic Management. Government of Bangladesh.
- Ministry of Environment, Forest and Climate Change. (2023). Ad Hoc Open-Ended Expert Group on Marine Litter and Micro-plastics position paper of Bangladesh. Government of Bangladesh.
- Unilever Bangladesh. (2023). বর্জ্য-মুক্ত পৃথিবী [A waste-free world]. Retrieved October 26, 2023, from <https://www.unilever.com.bd/planet-and-society/waste-free-world/>
- World Bank. (2021). Towards a multisectorial action plan for sustainable plastic management in Bangladesh. <https://thedocs.worldbank.org/en/doc/42712a1018d536bb86c35018b9600c53-0310062021/original/National-Action-Plan-for-plastic-management-Dec.pdf>