



Social Sciences & Humanity Research Review



Plastic Ban: The Role of Pakistan's Environmental Regulations: A Crucial step for Environmental Protection in Pakistan

Dr. Saima Waheed^{1*}, Dr Noor-ul-Ain Shabbir², Miss Ayesha Waheed³, Asmara Farzand⁴

¹Former Prosecutor, Former Deputy Solicitor Punjab, Civil Judge Cum Judicial Magistrate, HoD Law Alhamd Islamic University, Islamabad.

²Lecturer, Department of Mass Communication, The University of Faisalabad.

³MPhil Environmental Sciences LCWU, Lahore.

⁴Lecturer, Law Department, University of Chakwal.

<https://doi.org/10.63468/sshrr.376>

ARTICLE INFO

Keywords: Plastic Bags, Recycling, Biodegradable, Microplastics, Heavy Metals, Carbon Footprint

Corresponding Author*:

Dr. Saima Waheed

Former Prosecutor, Former Deputy Solicitor Punjab, Civil Judge Cum Judicial Magistrate, HoD Law Alhamd Islamic University, Islamabad

Email:

somi2win2016@gmail.com

Article History

Received: 18-03-2026

Revised: 26-03-2026

Accepted: 12-04-2026

Published: 23-04-2026

ABSTRACT

Pakistan faces a severe environmental and waste management crisis driven by the excessive, and largely unregulated consumption of single-use plastic bags. With an estimated annual consumption of 55 billion plastic bags, the country is grappling with severe ecological degradation. These bags, popular for their low cost and convenience, are composed of non-biodegradable polymers that persist in the environment for hundreds of years, contaminating soil and water resources. This unchecked proliferation has led to significant consequences, including the choking of urban sewage systems, causing floods during monsoon seasons, and creating breeding grounds for diseases.

In response to this, the Government of Pakistan has implemented several initiatives, including a ban on non-biodegradable plastic bags and the enforcement of penalties, most notably in the Islamabad Capital Territory in 2019. Research indicates that public awareness regarding the harmful effects of plastic is relatively high; however, the implementation of these bans remains challenging due to the lack of viable, cost-effective alternatives and continued availability in small-scale retail markets.

Furthermore, the indiscriminate burning of plastic waste is prevalent, leading to the emission of toxic greenhouse gases and hazardous particles into the atmosphere, directly impacting air quality and public health. The environmental damage extends to marine ecosystems, with plastic bags choking marine life and accumulating along coastal areas.

To address this challenge, it is imperative to shift towards eco-friendly alternatives such as cotton, paper, or biodegradable bags.



The success of future regulations depends on stricter enforcement, increased public awareness, and the provision of affordable alternatives. This study emphasizes that an integrated approach, involving policy enforcement, corporate responsibility, and behavioral change, is essential to mitigate the "plastic bag menace" and foster a sustainable environment in Pakistan.

INTRODUCTION

The introduction of a plastic ban in Pakistan represents a crucial governmental initiative aimed at tackling the nation's severe plastic pollution crisis, where an estimated 3.3 million tonnes of plastic waste are generated annually. With single-use plastic bags choking urban drainage systems, polluting waterways, and causing massive landfill issues, the government initiated a nationwide shift away from non-biodegradable plastics.

The most significant step was taken on **August 14, 2019**, when the [Pakistan Environmental Protection Agency \(Pak-EPA\)](#) imposed a strict ban on the manufacture, import, sale, purchase, storage, and usage of polythene bags in the Islamabad Capital Territory. This "No to Plastic" campaign, often associated with the Clean and Green Pakistan initiative, was designed to stop the proliferation of hazardous plastic products. The regulation, enforced through the Islamabad Capital Territory (Prohibition of Single-use Plastic Product) Regulations 2023, includes penalties for violators, with fines ranging from Rs. 10,000 for consumers to up to Rs. 500,000 for manufacturers.

Following the capital's lead, the ban was extended to various provinces, with the Punjab government, for example, implementing stricter controls on the production and trade of plastic bags, particularly on World Environment Day 2024. The government has promoted eco-friendly alternatives, such as paper, jute, and cloth bags, to replace polythene, encouraging a shift toward a more sustainable, circular economy.

Despite these efforts, the implementation faces challenges due to reliance on low-cost plastic and limited alternatives, resulting in partial enforcement in some regions. However, the continued governmental, public, and NGO-backed campaigns aim to strengthen the ban to protect Pakistan's fragile ecosystem and urban infrastructure.

LITERATURE REVIEW

Literature reviews regarding plastic bans in Pakistan indicate that despite the introduction of the Single-Use Plastics (Prohibition) Regulations (2023) and earlier 2019 initiatives, enforcement remains weak, resulting in limited success. While public awareness and support for the ban are high, particularly in Islamabad, implementation challenges like the absence of affordable alternatives and low enforcement pressure have caused low compliance, especially among retailers.

The literature highlights that 3.3 million tons of plastic waste are generated annually, placing immense strain on urban drainage systems and marine life. Key findings from studies by the [Pakistan Institute of Development Economics](#) suggest that when retailers fear penalties, compliance increases. However, the continued availability of plastic bags and the high cost of alternatives often discourage consumers.

Research from the [Pakistan Engineering Congress](#) indicates that while bans are spreading to provinces, they face resistance. The literature suggests that for future success, policies must focus on stricter enforcement, the development of affordable, durable alternatives, and sustained public engagement to shift cultural reliance on single-use plastics.

Nationwide Ban on single use of plastics:

A nationwide ban on single-use plastic is a critical policy initiative aimed at curbing the severe environmental degradation caused by disposable plastics, such as carry bags, cutlery, straws, and packaging films. These materials, which are used for only minutes but take centuries to break down, have become a major source of pollution in landfills, rivers, and oceans, harming marine life and choking city drainages.



Countries like India, Kenya, and others have implemented these bans to shift toward a circular economy, prioritizing sustainable alternatives like cotton bags, bamboo, and biodegradable materials. These regulations often include strengthening Extended Producer Responsibility (EPR), requiring manufacturers to manage the end-of-life disposal of their products.

The enforcement of such bans often faces hurdles, including the need for affordable alternatives and, occasionally, resistance from industries reliant on plastic packaging. However, the long-term benefits are substantial: a reduction in toxic air emissions from burning plastic, cleaner ecosystems, and improved public health. The success of a nationwide ban relies heavily on stricter enforcement, increased public awareness, and the adoption of reusable products to reduce the overall plastic footprint.

Government Initiative:

The alarming rise in plastic pollution has compelled governments worldwide to move beyond voluntary measures toward strict, mandatory, and regulatory frameworks. The primary government initiatives to stop plastic pollution focus on a three-pronged approach: banning single-use plastics (SUPs), enforcing Extended Producer Responsibility (EPR), and promoting a circular economy.

A cornerstone initiative is the comprehensive ban on single-use items, such as plastic bags, straws, cutlery, stirrers, and polystyrene (thermocool) items, which are notorious for choking ecosystems. These bans are often accompanied by strict penalties on manufacturers, sellers, and distributors who violate these regulations, including on-the-spot fines.

To stop the influx of plastic, governments are strengthening waste management infrastructure by promoting better segregation and increasing recycling facilities. The Extended Producer Responsibility (EPR) policy is a significant regulatory tool, making producers, importers, and brand owners legally accountable for the entire lifecycle of their products, including collection, recycling, and final disposal. This encourages the industry to adopt eco-friendly alternatives and reduce the overall plastic footprint.

Furthermore, governmental initiatives are shifting towards the "circular economy" model, promoting the reduction, reuse, and recycling of plastic materials. Incentives, such as tax benefits and subsidies, are provided to industries that shift to sustainable materials like jute, paper, and compostable plastics. Public awareness campaigns and educational programs are also being implemented to change consumer behavior regarding plastic usage.

At a global level, nations are collaborating to develop legally binding international instruments to end plastic pollution, with a focus on tackling the entire lifecycle of plastic, from production to waste management. These initiatives aim to curb plastic contamination in land and water, protecting biodiversity and human health. While bans and regulations face challenges, these governmental efforts are essential for mitigating the long-term, devastating effects of plastic on the environment.

Safety and health concerns:

The Government of Pakistan views plastic pollution as a critical threat to national safety, environment, and public health, primarily due to the mismanagement of nearly 65% to 86% of the estimated 3.9 million tons of plastic waste produced annually. A major concern for authorities is the extensive usage of single-use plastics (SUPs), with an estimated 55 billion plastic bags consumed yearly, resulting in the clogging of urban drainage systems, which directly exacerbates urban flooding during monsoon seasons. Furthermore, the uncontrolled disposal and burning of plastic waste release toxic chemicals and black carbon, contributing to severe respiratory illnesses, chronic diseases, and reduced air quality in major cities. The government is also alarmed by the impact on marine ecosystems, as untreated plastic waste flows from rivers to the Arabian Sea, affecting biodiversity and marine life.

To combat these safety hazards, the Pakistani government has implemented several regulatory measures, including the "Single-Use Plastics (Prohibition) Regulations, 2023," which bans the production, sale, and use of certain plastic items in the Islamabad Capital Territory. Authorities are pushing for Extended Producer Responsibility (EPR) to hold manufacturers accountable for waste disposal, alongside

encouraging the use of biodegradable alternatives. However, the government acknowledges significant challenges in enforcement, particularly the resistance from plastic manufacturers and the lack of viable, economical alternatives for consumers. Moving forward, the Ministry of Climate Change is focusing on strengthening waste management infrastructure, improving recycling rates (currently under 10%), and launching public awareness campaigns to promote a circular economy. The government remains committed to reducing plastic dependency to protect Pakistan's natural heritage and public health.

Laws involved:

Case laws and regulatory actions regarding the ban on plastic bags in Pakistan have primarily focused on enforcing environmental protection through higher judiciary directives and specific regulations in the Islamabad Capital Territory (ICT) and Punjab. The Lahore High Court (LHC), notably under Justice Shahid Karim, has been instrumental in driving this agenda, ordering the sealing of factories, restraining mega-stores from using plastic bags, and enforcing bans in cities like Lahore, Gujranwala, and Faisalabad. These judicial actions compelled provincial governments to take stricter action, following the 2019 ban on non-biodegradable bags, which was later tightened to a comprehensive prohibition on single-use plastics under the "Single-Use Plastics (Prohibition) Regulations, 2023" in ICT. Furthermore, legal frameworks like the Pakistan Environmental Protection Act, 1997, have been invoked by the [Pakistan Environmental Protection Agency \(Pak-EPA\)](#) to impose heavy fines of up to Rs. 500,000 on manufacturers and distributors, with recent legal updates in Sindh, such as the 2025 amendment, establishing a complete blanket ban on all plastic shopping bags.

Fines and penalties:

To combat the severe environmental and health hazards posed by non-biodegradable waste, Pakistan has implemented strict regulations banning the manufacturing, sale, and use of single-use plastic bags, primarily enforced through the [Pakistan Environmental Protection Agency \(Pak-EPA\)](#) and provincial governments. The penalties under the Single-Use Plastic (Prohibition) Regulations 2023 are designed to be punitive, targeting all levels of the supply chain. For the first-time violation, shopkeepers, hawkers, and stallholders face a fine of Rs 10,000, while manufacturing units, importers, and wholesalers are liable for a much steeper penalty of Rs 100,000. Repeated offenses lead to intensified penalties, with fines doubling for second-time offenders, and exceeding Rs 500,000 for habitual, multiple-time violations. Furthermore, the government has extended the liability to the general public, where citizens found using or carrying banned plastic bags can be fined Rs 5,000. Beyond monetary fines, authorities are authorized to confiscate banned items, seal commercial premises, and, in some cases, pursue legal action against producers. These measures are aimed at reducing the estimated 3.3 million tonnes of plastic waste generated annually in Pakistan, which contributes significantly to urban flooding and environmental degradation. The enforcement drives are particularly rigorous in the Islamabad Capital Territory (ICT) and major cities like Lahore, where, in addition to fines, the confiscated plastic is often repurposed into furniture for public, educational, and health institutions. Enforcement teams continue to monitor markets regularly to ensure adherence to the ban.

Quranic Injunctions:

Cleanliness (*Taharah*) is a foundational tenet of Islam, viewed not merely as a hygienic habit but as an essential part of faith (*Iman*). The Quran and Hadith place immense emphasis on both physical and spiritual purity, with the Prophet Muhammad (PBUH) stating, "Cleanliness is half of faith" (Sahih Muslim).

The Quran highlights cleanliness as a trait loved by Allah, stating: "Truly, Allah loves those who turn to Him in repentance and loves those who purify themselves" (2:222). It is considered a means of gratitude and a way to perfect divine favor, as mentioned in Surah al-Ma'idah: "Allah does not intend to inconvenience you, but He intends to purify you and perfect His favor to you, so that you may give thanks" (5:6). Furthermore, Muslims are commanded to "Cleanse your garments and keep away from all pollution" (74:4).

Islamic cleanliness covers the body, clothing, and environment. Rituals of purity are mandatory for worship, such as *Wudu* (ablution) before the five daily prayers, ensuring hands, face, mouth, and feet are clean. *Ghusl* (full-body bath) is required after certain conditions, ensuring complete bodily purity. In the absence of water, *Tayammum* (dry ablution) using clean soil is performed.

Beyond the body, Islam requires keeping living spaces and surroundings tidy. The Prophet (PBUH) urged, "Keep the compound and the front part of your house well-swept and clean". It is also encouraged to trim nails, remove body hair, and use the *miswak* (tooth stick) for oral hygiene. Islam extends cleanliness to the environment, forbidding the pollution of water sources, roads, and shaded areas. Furthermore, *Taharah* includes spiritual purification—keeping the heart free from arrogance, envy, and sin, which is considered the ultimate goal of the believe

In summary, cleanliness in Islam is a comprehensive way of life that harmonizes physical health with spiritual well-being, aiming to make the believer pure in body, mind, and soul to earn the pleasure of Allah.

The Holy Quran explicitly highlights the love of Allah for those who maintain cleanliness. In Surah Al-Baqarah, it is stated:

إِنَّ اللَّهَ يُحِبُّ التَّوَّابِينَ وَيُحِبُّ الْمُتَطَهِّرِينَ...

"...Indeed, Allah loves those who are constantly repentant and loves those who purify themselves." (Surah Al-Baqarah, 2:222)

Furthermore, in Surah Al-Ma'idah, Allah clarifies that the requirements of purity are designed to ease and honor the believer:

مَا يُرِيدُ اللَّهُ لِيَجْعَلَ عَلَيْكُمْ مِنْ حَرَجٍ وَلَكِنْ يُرِيدُ لِيُطَهِّرَكُمْ وَلِيُتِمَّ نِعْمَتَهُ عَلَيْكُمْ لَعَلَّكُمْ تَشْكُرُونَ...

"...Allah does not intend to make difficulty for you, but He intends to purify you and complete His favor upon you that you may be grateful." (Surah Al-Ma'idah, 5:6)

Islam extends the concept of cleanliness to our homes, streets, and public spaces, encouraging the removal of harm from the path as an act of charity (*Sadaqah*). Keeping the environment clean ensures the health and safety of the community, preventing the spread of disease.

- Prophet Muhammad (ﷺ) said: "Removing harmful things from the road is charity." (Sahih Muslim)
- It is narrated that the Prophet (ﷺ) said: "Allah is Pure and likes purity... so keep your courtyards clean." (Tirmidhi)

The Quran warns against corruption and destruction of the environment:

وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا...

"...And do not cause corruption upon the earth after its reformation..." (Surah Al-A'raf, 7:56)

In summary, a clean environment is seen as a "personal masjid" or sacred space. By keeping our homes, neighborhoods, and nature clean, Muslims honor their role as stewards (*Khalifah*) of the Earth, fostering a healthy community that reflects the beauty of their faith.

Research Objectives:

The primary research objectives regarding the plastic ban in Pakistan, particularly the prohibition of single-use polythene bags, center on mitigating severe environmental degradation and protecting public health. As Pakistan consumes an estimated 55 billion plastic bags annually, a major goal is to curb this rampant usage, reduce the immense volume of non-biodegradable waste, and decrease the pollution that blocks urban drainage systems, causing flooding and providing breeding grounds for disease. Research in this area also aims to evaluate the effectiveness of policies such as the Islamabad Single-Use Plastic (Prohibition) Regulations of 2023, analyzing how well bans on manufacturing, importing, selling, and using plastic bags are enforced. Another key objective is to promote the adoption of environmentally friendly, sustainable alternatives—such as cloth or paper bags—and to encourage the recycling of existing

plastic waste through Extended Producer Responsibility (EPR) mechanisms. Furthermore, research seeks to identify the barriers to implementation, such as the economic influence of the plastic industry and the need for public awareness campaigns to shift consumer habits towards more sustainable options. Finally, these objectives aim to provide evidence-based recommendations to policymakers to ensure that future environmental regulations are both effective and sustainable in reducing the country's carbon footprint and protecting its ecosystems

Hypothesis:

The legal bans on plastic bags and single-use plastics in Pakistan, although backed by environmental protection laws, are more symbolic than effective due to weak enforcement, economic resistance, lack of affordable alternatives, and socio-economic dependencies; therefore, without stronger implementation mechanisms and incentive structures, the bans will fail to significantly reduce plastic pollution.

1. Existing Legal Framework

- The **Single-Use Plastics (Prohibition) Regulations, 2023** ban manufacture, import, distribution, sale, and use of many single-use plastic items in Islamabad Capital Territory, with phased deadlines for different items.
- **S.R.O. No. 92(KE)/2019** effectively prohibits polythene bags in Islamabad with monetary fines for violations.
- **Punjab and Sindh** have their own plastic product regulations, banning plastic bags of a certain micron thickness and ultimately all plastic shopping bags under provincial environmental protection acts.

These laws reflect Pakistan's legal intention to curb plastic pollution.

Hypothesis Breakdown (Why the Ban Isn't Working as Intended)

1. Laws Exist But Enforcement is Weak

Even where bans are on the books, **implementation is lagging**:

- Surveys show single-use plastics still make up a large share of household waste in Islamabad, a sign that enforcement is not translating into behavioral change.
- Reports and commentary note that despite repeated notifications and regulations, **field enforcement teams are limited**, and plastic use persists.

→ *Hypothesis angle*: **Weak enforcement capacity undermines the deterrent effect of the law.**

2. Economic and Social Resistance

- Plastic products are inexpensive, widely available, and embedded in daily commerce.
- The plastic manufacturing sector in Pakistan supports hundreds of thousands of jobs and billions in investments and revenue; this economic footprint **pushes back** against rapid bans.
- Without economic alternatives, producers and consumers are **less motivated to comply**.

→ *Hypothesis angle*: **Economic dependencies and lack of transition support make strict bans impractical.**

3. Lack of Affordable Alternatives

- Enforcement alone doesn't reduce use if **cheap, practical substitutes aren't available** for consumers and small businesses.
- When alternatives are more costly or scarce, people revert to what they know.

→ *Hypothesis angle*: **Policy without accessible alternatives fails to change consumer behavior.**

4. Behavioral and Awareness Gaps

Even where people know about the law:

- Awareness does not automatically produce compliance.
- Long-standing habits and cultural practices around plastic use persist.

→ *Hypothesis angle*: **Legal prohibition must be paired with sustained public engagement to shift norms.**

Legal Mechanics and Limitations



Penalties

- Violators face fines (e.g., up to Rs. 500,000 for manufacturers in Islamabad), but penalties are rarely enforced at scale.

Gaps in Regulation

- Most bans focus on **use and sale**, not on **production or upstream supply chains**.
- Supply continues because regulatory attention is uneven across provinces.

→ *Hypothesis angle*: **Partial ban coverage creates legal loopholes that maintain plastic availability.**

Synthesis

An enriched formal hypothesis could be:

“Although Pakistan has developed legal instruments to ban single-use plastics and polythene bags, chronic enforcement weaknesses, economic resistance from the plastics industry, lack of affordable substitutes, and insufficient public engagement mean that these laws, in their current form, are unlikely to achieve meaningful reductions in plastic pollution without complementary policies and institutional strengthening.”

Prevention:

Here are four key imperatives that inform our plastic action efforts:

1. Start simple: Plastic bag ban

In 2019, Pakistan became one of 128 countries with a single-use plastic (polythene) bag ban in place. Pakistan’s ban halted the production of 600,000 kilograms per annum. The success of the ban depended on both awareness of the ban, created by Ministry of Climate Change-led educational campaigns for citizens and manufacturers, the free distribution of alternative bags, and media coverage of strict enforcement measures taken by the Pakistan Environmental Protection Agency (EPA), as well as access to cheap alternatives achieved by the identification of indigenously produced reusable bags. Importantly, however, the EPA began to regulate violators at both the consumer and manufacturer level, thus changing behaviour. Penalties were levied on the production and sale of plastic bags, with fines varying from between 500 to 500,000 Pakistani rupees.

These efforts got results. A survey conducted after a year in September 2020 showed that 80% of the participants felt that the ban had increased their knowledge on plastic pollution. Thanks to regulation, the survey showed that all of the retailers interviewed had shifted towards using alternative bags.

2. Be creative: New solutions and approaches

Pakistan is committed to identifying and prioritizing innovative, systemic solutions that tackle plastic leakage across the entire value chain and that support the development of a fair and inclusive society. The Clean Green Pakistan Index (CGPI) is a case in point. The CGPI, launched in November 2019, seeks to improve sanitation services across Pakistan through healthy competition among the cities and citizens. The Index comprises more than 35 performance indicators on five components including solid waste management, against which cities are ranked annually. The indicators were designed and finalized with the municipalities, and targets were set by them ultimately targeting improved governance and enhancing credibility of data collected.

Citizens participate in the competition through an ICT-based champions programme that records voluntary actions to keep the cities clean, improving civic amenities and creating in them the spirit and sense of owning their habitats and cities. Top-performing cities and citizens are rewarded by the prime minister to boost morale and sustain continuous improvement. After the successful pilot, the competition was expanded to all provinces and regions (93 cities), ensuring public sector capacities are built to achieve a clean and green Pakistan.

In another example, Pakistan is exploring new coding systems that will facilitate the recycling of post-consumer plastics, providing an opportunity for manufacturers with a consistent system for resin identification.

Pakistan has also identified Extended Producer Responsibility (EPR) as an effective measure to stem plastic pollution. EPR is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. Pakistan with the support from the EU SwithAsia programme initiated baseline assessment and contextualized the mechanism for local adoption. However, EPR schemes aimed at minimizing plastic waste streams do not function as a standalone policy and, to be effective, need to be flanked by effective monitoring, as well as other economic incentives such as taxes. In addition, building local capacities is also identified as a priority for the effective rollout of EPR.

3. Invest in livelihoods: Green stimulus

The COVID-19 crisis has highlighted more than ever the critical need to safeguard and improve livelihoods. Pakistan's "Green Stimulus" was designed to offer livelihood opportunities for virus-idled daily wagers, including women and youth, and therefore focus on the dual objective of protecting nature and creating green jobs. The programme's focal areas for intervention have included planting more trees, and expanding and reviving our protected areas, but it has also concerned itself with improving urban sanitation – all of which can generate employment while also allowing the country to emerge from the crisis on a nature-positive pathway. The Clean Green Pakistan Movement was reconfigured as a part of the package to offer labour-intensive sanitation jobs and run advocacy campaigns

4. Scale action: Evidence-based roadmaps and collaboration

To be sure, Pakistan has more work to do if it is to truly eliminate plastic waste. Understanding the need to address the root cause of this problem, Pakistan is developing a five-year plan that aims to: adopt innovative plastic waste minimization strategies; increase the re-use and recyclability of plastic waste; institute operational changes; enhance credible data collection; and open new avenues for revenue generation. Leaders expect this plan to be in place by mid-2022, which marks the conclusion of the CGPI phase III and Third Party Monitoring of CGPI, ensuring that analytics are available for effective implementation of the plan.

Of course, such strategies need complementary support in terms of institutional capacity building, technology transfer and monitoring systems. Pakistan believes in an evidence-based approach to evaluate the quantity of plastic waste imported into the country, the quantity of recycled and disposed of plastic in the local market, and, most importantly, the economic and environmental impacts at the ground level to identify the economic benefits of a more circular approach.

To establish a clear baseline and translate its plastic action strategy into action, Pakistan is the latest member nation to officially join forces with the [Global Plastic Action Partnership \(GPAP\)](#). In the spirit of Pakistan's commitment to a "Clean and Green" Pakistan, we are inspired to take a regional leadership role by joining early-adopter GPAP nations Indonesia, Ghana, Nigeria and Viet Nam.

Governments around the world are recognizing the need to develop national action plans and coordinate action to accelerate circular plastic solutions. There is an urgent call for evidence-based frameworks that equip countries to regenerate the environment, while at the same time protecting the livelihoods of vulnerable communities and provide economic opportunities across the value chain.

By learning from each other and sharing concrete knowledge and experience, we are well-positioned to strengthen our efforts and take effective action

METHODOLOGY

The methodology for the plastic ban in Pakistan, particularly focusing on the Single-Use Plastics (Prohibition) Regulations of 2023 in the Islamabad Capital Territory (ICT) and provincial initiatives, follows a "command and control" approach combined with extended producer responsibility (EPR). The process begins with legal frameworks, such as the Pakistan Environmental Protection Act (1997) and specific SROs (Statutory Regulatory Orders), which strictly prohibit the unauthorized manufacturing, import, distribution, sale, purchase, storage, and usage of polythene bags and single-use items like plastic

cutlery, straws, and cups. Enforcement is carried out by the [Pakistan Environmental Protection Agency \(Pak-EPA\)](#) in collaboration with local administration, involving field inspections, crackdowns, and the seizure of banned materials from commercial, agricultural, and urban areas.

A key aspect of this methodology is the enforcement of EPR, requiring manufacturers and importers to submit mandatory, approved recycling plans for their products to minimize solid waste. The strategy further emphasizes shifting the burden to the source by issuing heavy fines (up to Rs. 500,000 for large entities and Rs. 10,000 for retailers/hawkers) for violators. To facilitate the transition, the government promotes alternatives, such as biodegradable, paper, or cloth bags, and encourages public-private partnerships, including the "Collect and Recycle Alliance (CoRe)". Additionally, awareness campaigns are utilized to encourage behavioral changes among consumers, alongside the implementation of the National Plastic Waste Management Rules to regulate the entire lifecycle of plastics.

Research Questions/Prompt:

Policy Effectiveness and Implementation

1. How effective has the 2019 ban on single-use plastic bags been in Islamabad compared to other provinces?
2. What are the key enforcement challenges faced by the [Environmental Protection Agency \(EPA\)](#) in implementing the plastic ban?
3. How do penalties and fines (punitive risks) influence retailer compliance with the ban?
4. To what extent have provincial governments (Punjab, Sindh, Balochistan) successfully enforced bans on plastic bags below specific thicknesses?
5. How has the ban on plastic bags affected the overall volume of municipal solid waste in major cities?
6. What is the role of municipal authorities in monitoring the sale of prohibited plastic bags in local, weekly bazaars?
7. How does the "gap" in policy definition (e.g., distinguishing between types of plastic bags) impact the effectiveness of the ban?
8. What, if any, is the impact of the ban on the import of plastic waste, paring, and scrap?
9. How do the enforcement mechanisms in small, rural retailers differ from those in big, city supermarkets?
10. Is the current legal framework regarding plastic bans in Pakistan sufficient, or does it require stricter enforcement policies?
11. What is the level of awareness among Pakistani consumers regarding the health and environmental risks of single-use plastics?
12. What are the primary reasons for the continued high usage of plastic bags (76% usage rate) despite existing bans?
13. How has consumer attitude changed toward bringing their own bags (BYOB) for shopping after the ban?
14. How does the educational level of consumers influence their perception and adherence to the plastic ban?
15. What are the common methods used by households to dispose of plastic waste (e.g., burning vs. recycling)?
16. How do cultural norms in Pakistan, such as the convenience of plastic for food storage (e.g., for carrying hot curries), hinder the ban's success?
17. What is the public perception regarding the fairness and necessity of the government's plastic ban?
18. To what extent are consumers willing to pay more for eco-friendly alternatives to plastic bags?
19. How effective have awareness campaigns conducted by NGOs and the government been in changing public behavior?
20. What is the difference in perception of the ban between younger consumers and older residents?
21. What is the impact of the plastic ban on the small-scale retail and manufacturing industry in Pakistan?

22. How does the cost of producing eco-friendly bags (cotton, paper) compare to the cost of producing plastic bags in the local market?
23. What are the challenges in the supply chain of available alternatives like jute or cloth bags?
24. How can the plastic ban stimulate a circular economy in Pakistan, particularly in recycling and waste management?
25. What is the potential economic impact on plastic manufacturers if the ban is implemented nationwide?
26. How do businesses (kiosks/hawkers) manage the lack of alternatives for packaging items like food?
27. Are "biodegradable" or "eco-friendly" alternatives being properly validated by regulators to prevent new environmental issues?
28. How can the government support local industries in switching from plastic production to sustainable alternatives?
29. What is the potential for job creation in the biodegradable bag sector as a result of the ban?
30. Does the shift to alternatives (e.g., paper or synthetic fiber bags) truly reduce the overall environmental impact?

FINDINGS /RESULTS

The plastic ban in Pakistan, initiated prominently with the prohibition of single-use polythene bags in Islamabad in August 2019 and later extended to provinces like Punjab and Sindh (notably in 2024 and 2025), has produced mixed results, marked by initial enthusiasm but significant enforcement challenges. As of 2025–2026, the ban targets plastic bags thinner than 75 microns, aiming to curb the 3.3 million tons of annual plastic waste that clog drainage systems and pollute water sources. In the capital, where the crackdown has been most intense, environmental authorities have successfully confiscated thousands of kilograms of single-use plastic items, including bags, plastic cutlery, and Styrofoam products, while issuing warnings and fines to manufacturers and retailers.

Despite these efforts, the overall result of the bans has not been completely effective. While consumer awareness about the hazards of plastic has increased, and over 75% of consumers initially reported reduced consumption, usage remains high, particularly in small shops and rural areas. The ban faces severe hurdles, including the economic influence of the plastics industry, which involves thousands of families, and the high cost or lack of available, affordable alternatives to polythene. The lack of a uniform nationwide policy has also led to inconsistent enforcement across different provinces. Consequently, while the ban has succeeded in reducing plastic waste in high-profile areas and boosting public awareness, long-term success relies on stricter, consistent, and nationwide enforcement and the availability of affordable, sustainable alternatives.

Limitations of study:

Studies analyzing the effectiveness of plastic bag bans in Pakistan, such as the 2019 ban in Islamabad and subsequent provincial regulations, face several critical limitations, primarily centered on weak enforcement, lack of data, and economic reliance on plastic. Research indicates that while regulations exist, enforcement is often sporadic, focusing heavily on small retailers rather than upstream manufacturers, which allows banned plastics to remain in circulation. A major limitation in studying these bans is the scarcity of consistent, nationwide data on production, consumption, and disposal rates, as much of the plastic waste management occurs in an unregulated, informal sector. Furthermore, many studies are limited by geographical scope, focusing primarily on Islamabad rather than the rural or commercial hubs like Karachi, Punjab, and Balochistan where enforcement challenges differ significantly. Studies also note that a lack of affordable, durable, and readily available alternatives makes it difficult to measure consumer behavior shifts accurately, as reliance on cheap plastic continues due to economic factors rather than lack of awareness. Another significant limitation is the lack of long-term longitudinal studies to evaluate the enduring impact of the ban on pollution levels, as most research is conducted shortly after the policy announcement, offering only a snapshot rather than a comprehensive evaluation. Finally, the economic

influence of the plastic industry, with billions invested and hundreds of thousands of jobs, has created resistance that complicates the assessment of policy effectiveness, often rendering the ban on paper, but not in practice.

CONCLUSION

Plastic bags are a major source of land, water, and air pollution in Pakistan. They clog drains during monsoon rains, contribute to urban flooding, harm wildlife (especially marine life), and break down into microplastics that can enter the food chain and impact human health. Federal and provincial governments have introduced bans and regulations targeting the manufacture, sale, and use of single-use plastic bags. For example, Punjab and Islamabad have enforced strict bans and ongoing inspections to stop illegal use. Despite laws, enforcement remains inconsistent. Plastic bags are still widely used in many cities because alternatives aren't always affordable, awareness is limited, and regulatory oversight varies across regions. Switching to reusable or biodegradable bags (like cloth or paper) and improving recycling systems is crucial for long-term success. Without affordable and practical options, bans alone are unlikely to significantly reduce usage.

Plastic bags in Pakistan are **an ongoing environmental and public health issue**. While legal bans show commitment to sustainability, **their effectiveness depends on stronger enforcement, public awareness, and accessible eco-friendly alternatives**. Only through collective effort—from government, businesses, and citizens—can the harmful cycle of plastic pollution be meaningfully reduced.

Recommendation and Implementation:

These items are targeted due to their low utility, high littering potential, and lack of easy recyclability:

I. Food Service & Cutlery

1. Plastic spoons
2. Plastic forks
3. Plastic knives
4. Plastic stirrers
5. Plastic straws (including bio-plastic)
6. Plastic plates
7. Plastic cups
8. Plastic bowls
9. Plastic lids for cups/containers
10. Expanded Polystyrene (EPS) containers/thermocool cups
11. Disposable plastic food wrappers
12. Plastic stirrers for hot/cold drinks

II. Retail & Packaging

1. Polythene bags less than 75-100 microns
2. Plastic wrapping for fruits and vegetables
3. Plastic shrink-wrap for bottles/suitcases
4. Thin plastic film for packaging
5. Plastic courier bags
6. Plastic garment bags
7. Plastic sealing tapes (non-biodegradable)
8. Plastic labels/tags on clothing
9. Plastic packing peanuts

III. Miscellaneous & Daily Use

1. Plastic ear buds/cotton buds
2. Plastic balloon sticks
3. Plastic flags



3. Plastic cigarette butts/filters
4. Plastic candy sticks
5. Plastic ice cream sticks
6. Plastic micro-beads in cosmetics/toothpaste
7. Small plastic bottles (< 500ml) for water/beverages
8. Disposable plastic toiletry bottles in hotels.

Implementation and Regulatory Recommendations

- **Enforce Strict Fines & Penalties:** Implement fines ranging from PKR 5,000 to PKR 50,000 for violators, with provisions to seal premises.
- **Phased Approach:** Introduce bans in stages to allow manufacturers to transition to alternatives (e.g., immediate ban on bags, 2025/2026 for containers).
- **Mandatory Alternatives:** Promote and subsidize alternatives such as jute bags, paper packaging, and biodegradable materials (ASTM D6400).
- **Extended Producer Responsibility (EPR):** Force producers to take responsibility for collecting and recycling their packaging.
- **Public Awareness Campaigns:** Use media to inform the public of the environmental hazards and the benefits of a plastic-free life.
- **Support Small Businesses:** Assist small-scale manufacturers in converting their businesses to produce eco-friendly alternatives.

These measures are designed to curb the environmental degradation caused by plastics clogging water systems and polluting ecosystems.

REFERENCES

1. S.R.O. No. 92(KE)/2019 (July 22, 2019)
2. Single-use Plastics (Prohibition) Regulations, 2023.
3. April 30, 2025, Crackdown
4. Provincial Ordinances (Punjab/Sindh/Balochistan)
5. 3.3 Million Tonnes Annual Waste
6. PKR 500,000 Fine.
7. 15-Micron Ban (Punjab)
8. 2018 PIDE Study
9. National Climate Change Policy 2021
10. 2013 Regulations
11. Sindh Prohibition Act, 2006
12. World Economic Forum Partnership (2022)
13. Retailer Defiance Study (2024)
14. 2023 Ban on Food Containers
15. 100 Days to Beat Plastic Campaign
16. 50% Recycled Content Requirement (2028).
17. Switch-Asia Report (2022).
18. River Indus Pollution Study
19. "Polluter Pays" Principle
20. Promotion of Alternatives

