



SOLVING THE PLASTIC POLLUTION PROBLEM

Tackling Plastic Pollution

Annalis
Wiramidjaja
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PLASTIC POLLUTION

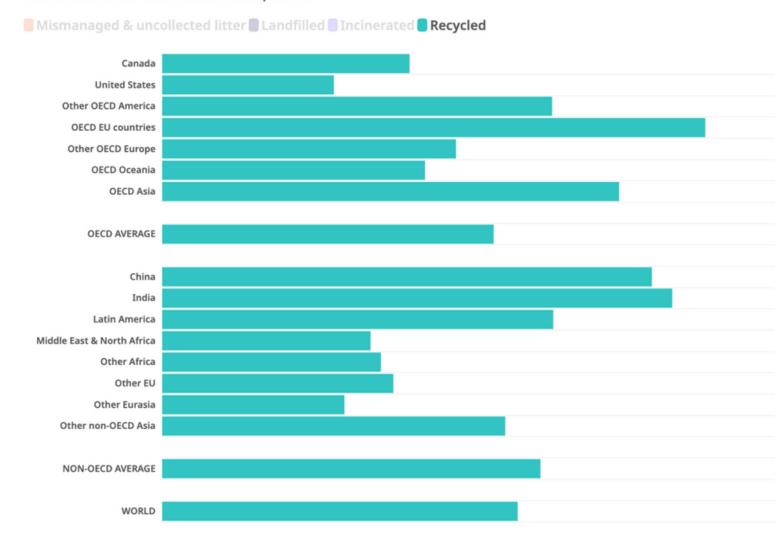
Why reducing and reusing matter now more than ever

- Global plastic production: >430 million tons annually;
 forecasted to reach ~445 million tons by in 2025 and
 triple by 2060 if current trends continue. (1)
- Mismanaged waste: Over 22% of plastic waste is mismanaged; and 49% is landfilled, especially in low- and middle-income countries (LMIC). (2)
- Recycling limitations: The global recycling rate remains at only ~9% of all plastic ever produced. (3)
- Environmental impact: Plastic leakage into aquatic ecosystems could increase from 20Mt in 2020 to 30Mt by 2040 if not addressed. (4)



Globally, only 9% of plastic waste is recycled while 22% is mismanaged

Share of plastics treated by waste management category, after disposal of recycling residues and collected litter, 2019



Recycled plastic waste per country in 2019 (Source: OECD)

¹ AKEPA, Environmental impact of plastic pollution, 2025

² OECD, Development co-operation and the elimination of plastic pollution, 2025

³ EcoWatch, Global Plastic Recycling Rate 'Stagnant' at 9%: Study, 2025

⁴ OECD, Policy Scenarios for Eliminating Plastic Pollution by 2040, 2025

BEYOND CLEAN UP



Understanding the UNEP 5Rs Framework

Reduce

 Eliminate unnecessary plastic production and consumption

Reuse

Extend the lifespan of products and packaging

Recycle

 Recover material value at the end-of-life

Reorient & Diversify

 Shift to new business models and materials

Remediate

Clean up legacy pollution

Hierarchy matters. For greatest impact, there should be a prioritisation of *reduction* and *reuse*

GLOBAL PLASTICS TREATY

INC-5.2 Update



What is the INC?

The Intergovernmental Negotiating Committee (INC)
was established by UNEA 5/14 to develop a legally
binding instrument on plastic pollution, including the
marine environment.

Where are we now after INC-5.2?

- INC-5.2 was held in Geneva (August 2025), a continuation of INC-5 after delays in Busan, ROK,
- The session was meant to finalise the treaty, but key disagreements remain.



INC-5.1: Busan, South Korea (Source: UN)

GLOBAL PLASTICS TREATY

INC-5.2 Update (cont'd)

GGGI

Key outcomes:

- No consensus yet on:
 - Binding global reduction targets vs. flexible national action plans
 - Controls on virgin plastic production
 - The role of reuse systems and product design standards
 - Financial mechanisms: global fund, plastic taxes, or voluntary options

Whats next?

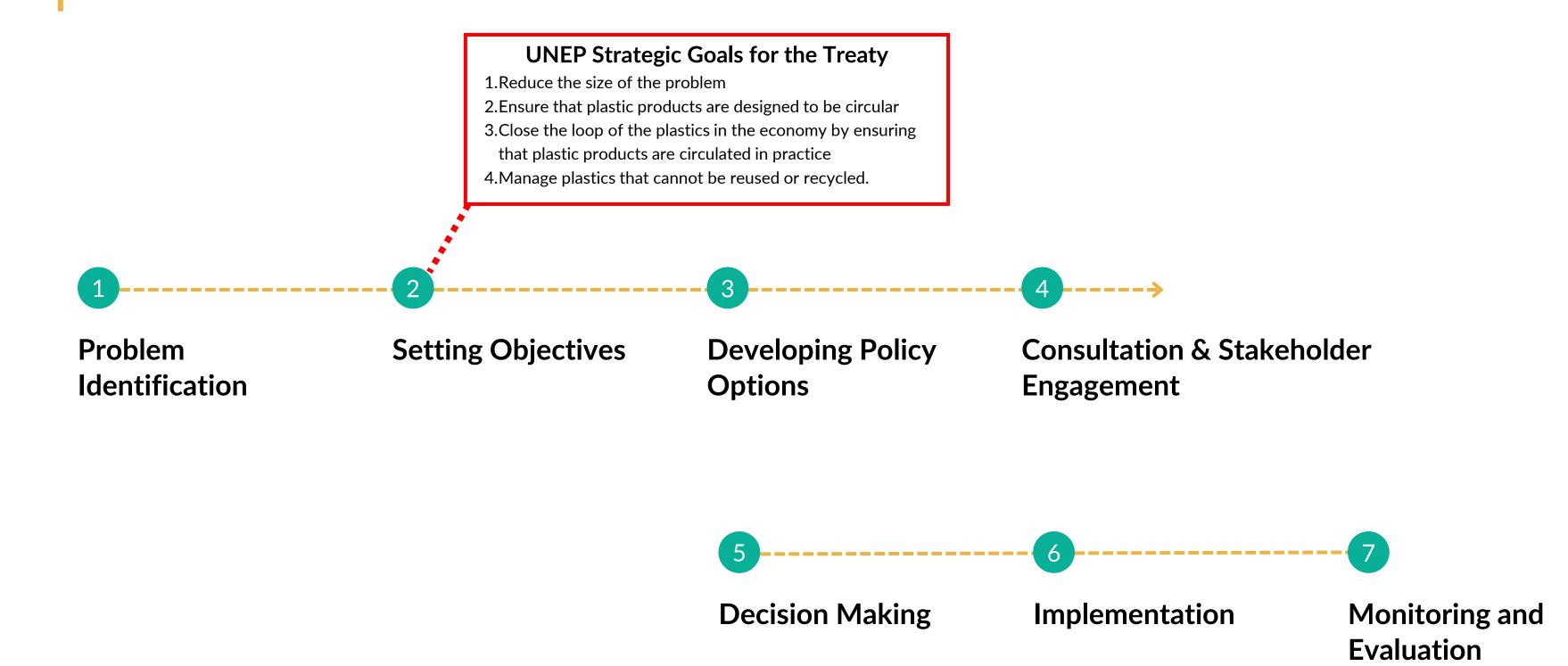
- The treaty is still expected to be adopted by the end of 2025
- Implementation details- including EPR, reduction, and reuse- are still being negotiated.



INC-5.2: Geneva, Switzerland (Source: CBC)

POLICY FORMULATION PROCESS



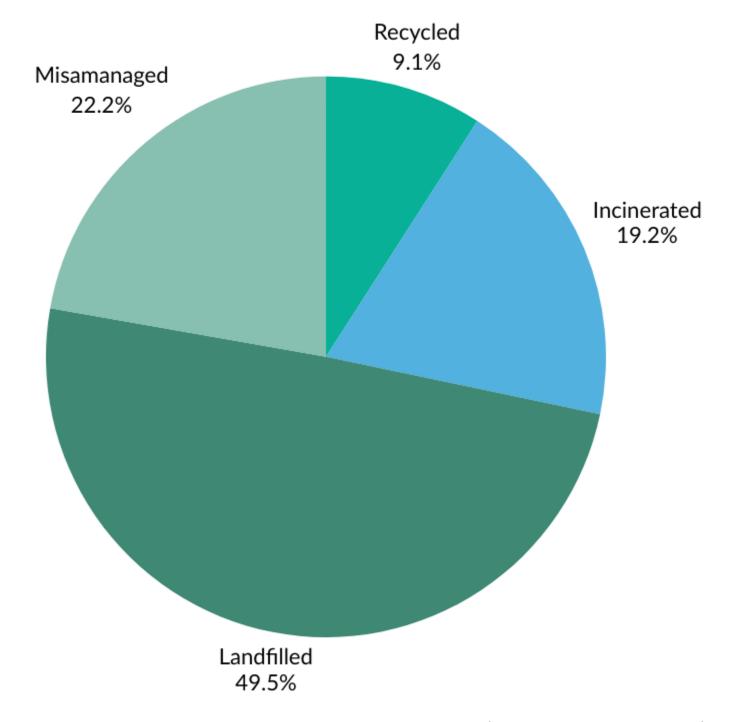


WHY RECYCLING ISN'T ENOUGH

The limits of recycling as a standalone solution

- As of 2025, just 9% of plastic produced has been recycled globally; most ends up down-cycled or lost. (5)
- Common obstacles:
 - contamination,
 - expensive processing, and
 - poor infrastructure (particularly in LMICs)
- Single-use plastics (like multi-layer plastic packaging) are in someways, designed to be unrecyclable.





(Source: EU Parliament)

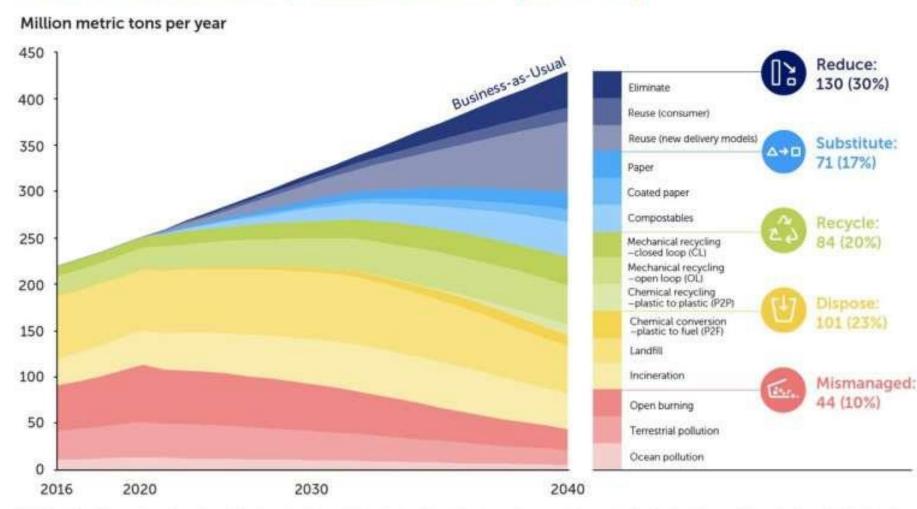
REDUCE



Designing for Prevention

- Elimination of avoidable plastics (ex. straws, cutlery, microbeads)
 - France's produce bag ban removes 1 billion plastic packages annually. (6)
 - India's single-use plastic ban led to the seizure of 775,000kg of banned items in 3 years and penalties of over INR 58 million. (7)
- **Product redesign:** Companies switching to single-material, recycled content packaging or alternative materials increases recyclability and market value.
 - Minimal packaging is also encouraged.
- Policy Levers:
 - Taxes,
 - bans, and
 - o procurement reforms.

There is a credible path to significantly reduce plastic leakage into the ocean but only if all solutions are implemented concurrently, ambitiously, and starting immediately



This "wedges" figure shows the share of treatment options for the plastic that enters the system over time under the System Change Scenario. Any plastic that enters the system has a single fate, or a single "wedge." The numbers include macroplastic and microplastic.

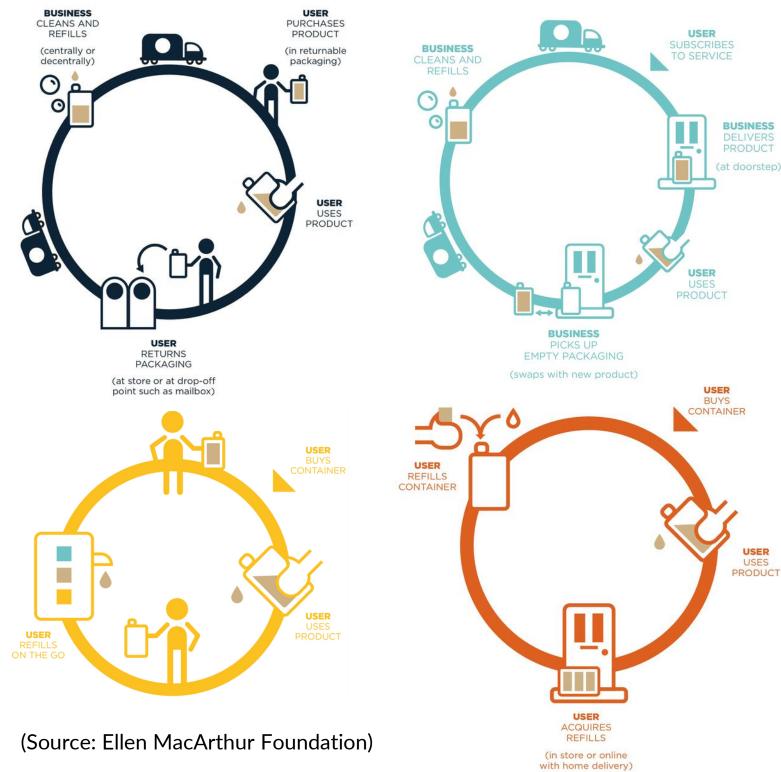
(Source: Pew Charitable Trust)

REUSE

Extending Product Life

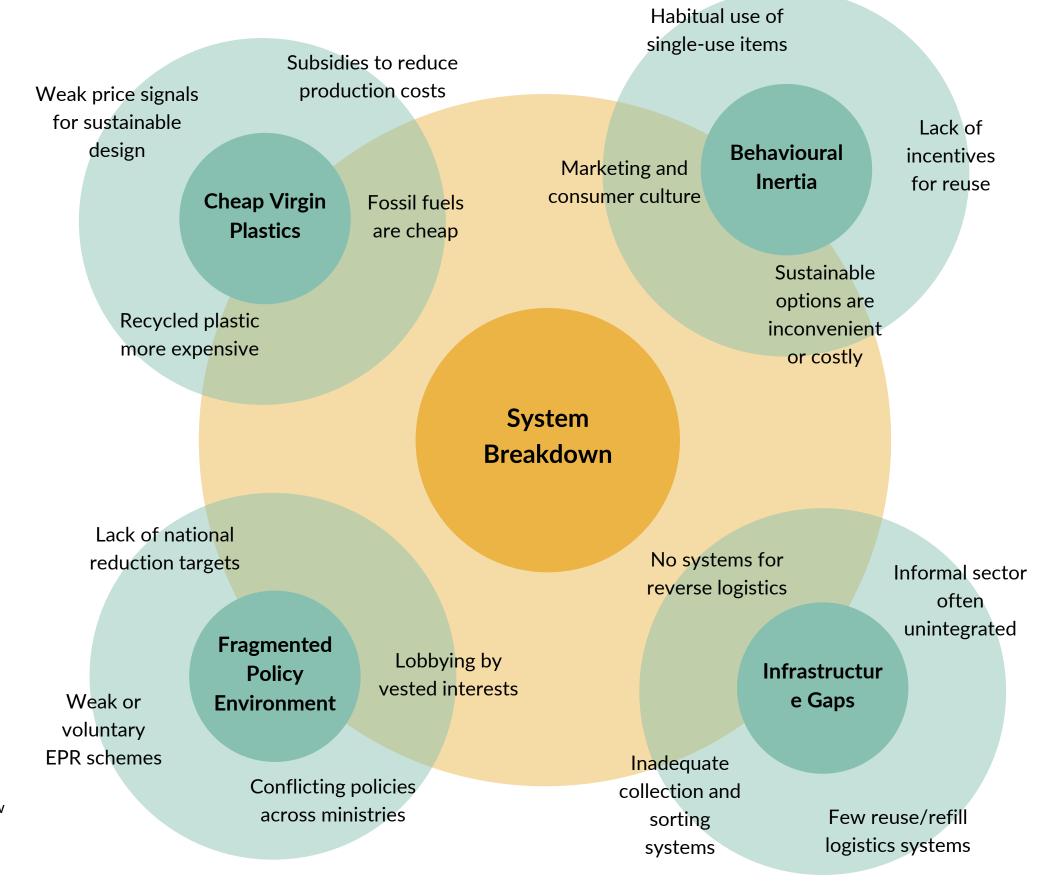
- Reuse involves system design
 - Collection,
 - Cleaning, and
 - Redistribution
- Reuse systems can reduce demand for virgin
 plastics and associated GHG emissions by up to
 60%. (8)
- Successful reuse models rely on coordinated logistics





WHERE SYSTEMS BREAK DOWN Key Barriers

- Cheap virgin plastics: 98% of new plastics derive from fossil sources; pricing policies and subsidies make virgin plastics cost-competitive. (9)
- Behavioural inertia: Convenience often wins over sustainability for most consumers.
- Fragmented policy: Producer accountability is often unclear; industry resistance is common. (10)
- Infrastructure gaps: Many regions lack systems for reuse logistics and modern waste management.
 (11)



⁹ Houssini, Li, & Tan, Complexities of the global plastics supply chain revealed in a trade-linked material flow analysis, 2025

¹⁰ OECD, Policy Scenarios for Eliminating Plastic Pollution by 2040, 2024

¹¹ OECD, Development co-operation and the elimination of plastic pollution, 2025

EXTENDED PRODUCER RESPONSIBILITY

Policy Mechanism

- Extended Producer Responsibility (EPR): Legally obligates producers to finance the post-use management of plastics, shifting the burden from governments to the supply chain. (12)
- Includes differentiated fees (eco-modulation, obliged reporting, investment in improved systems.



What Makes EPR Work?				
Legally Binding Mandates	With strong enforcement (ex. France, Korea)			
Eco-modulated fees	Producers pay less for recyclable/ reusable packaging, incentivising better design (13)			
Producer responsibility Organisations (PROs)	Manage compliance, investment, and reporting			
MRV Systems	Data-driven monitoring, reporting, verification to ensure accountability and accuracy (14)			
Equity Safeguards	Formal inclusion of the informal sector (waste pickers improve recovery rates by as much as 30% in pilot projects) (15)			

¹² OECD, Policy Scenarios for Eliminating Plastic Pollution by 2040, 2024

¹³ BBC, Has Kenya's plastic bag ban worked?, 2019

¹⁴ OECD, Policy Scenarios for Eliminating Plastic Pollution by 2040, 2024

¹⁵ Ferronto, N, et al., A review of plastic waste circular actions in seven developing countries to achieve sustainable development goals, 2023

BUILDING COHERENT SYSTEMS

System Integration

- EPR is policy mechanism; reduce/ reuse are core goals
- EPR fees can fund reuse infrastructure; reduction targets can be hardwired into EPR mandates (19)
- Alignment needed across producer design, consumer incentives, policy obligations for "circular economy" effectiveness.

REDUCE

- Minimise material use
- Product design for longevity
- Consumption shift

Product design

Zero-waste models Minimal packaging

Circular Economy Transition

REUS

- Systems for return/ refill
- Durable product loops
- Business model innovation

Regulatory push for light-weighting, plastic bans, upstream fees

Take-back systems Refill logistics funded by producers

EP

- Producer accountability
- Financial responsibility for post-use
- Incentives for eco-design

YOUTH AS CATALYSTS FOR CHANGE

What role can you play?

- Behaviour change: Peer education and norm influence - surveys show youth campaigns drive 70%+ shifts in local communities.
- Innovation: Youth-led startups, digital tracking apps, and campaign design.
- Accountability: Waste audits, brand mapping policy advocacy.





(Source: Top - Los Angeles Times, Bottom - National Geographic)

MINI ACTIVITY

Designing Your Campaign Strategy

Who Matters, and Why?

- 1. Choose a plastic policy or issue with your group relevant to your campaign topic
- 2. List key stakeholders (ex. government agencies, private sector, waste workers, students, NGO, media, etc.)
- 3. Map your stakeholders:
 - Power-Interest Grid ·Who has the most power/ influence over the issue? Who does it impact the most? Who has the most interest in particular outcomes?
 - Ecosystem Map What are the relationships and roles between your stakeholders? And are they positive, negative, neutral?



Access the Template:



https://shorturl.at/7m5C m

PLASTIC POLLUTION POLICY TOOL MATRIX



Review of Policy Tool Instrument Effectiveness | Alignment with Plastic Pollution Challenge Areas

	Regulatory	Economic	Voluntary	Information-Based
Plastic Production				
1.1 Virgin plastic production				
1.2 Toxic additives				
Plastic Use & Consumption				
2.1 Single-use plastic items				
Reuse & refill adoption				
Waste Collection & Recycling				
3.1 Collection & segregation				
Recycling infrastructure				
Plastic Leakage & Environmental Impact				
Open dumping & mismanagement				
Marine & riverine leakage				

KEY FOCUS AREAS



1.Policy & Institutional

- Align national policies and laws with global treaty requirements
- Introduce bans/phase-outs for single-use plastics
- Establish Extended Prodcuer Responsibility and product standards

3. Data, Monitoring, &

- Conduct national plastic flow inventories and leakage assessments
- Develop MRV systems for treaty compliance
- Enable transparent public reporting

2. Financing & Resource

- Identify sustainable financing sources for waste and circular economy projects
- Mobilise domestic and international resources (GEF, GCF, MDBs)
- Explore plastic credit markets and blended finance solutions

4. Capacity & Inclusion

- Build capacity of government agencies, SMEs, and local communities
- Integrate the informal waste sector and ensure just transition measures
- Promote public awareness and behavioural change initiatives

FROM POLICY TO IMPACT



Turning Commitments into Action and Measurable Results



Global Commitment

- Countries join the Global Plastics Treaty
- Commit to a reduction in plastic pollution aligning with UNEP 5Rs

2

National Readiness (5 Dimensions)

- Policy & Regulation: Adopt bans, EPR, product standards
- Institutional & Coordination:
 Create national task forces
- Data & Monitoring: Establish inventories & MRV systems
- **Financing:** Mobilise EPR funds, GEF/GCF support, blended finance
- Capacity & Inclusion: Train stakeholders and integrate informal workers

3

Policy Action & Implementation

- Launch programs for waste collection, recycling, and reduction
- Strengthen enforcement and public-private collaboration
- Deploy financing into infrastructure and innovation

Monitoring & Scaling

- Track national progress using reporting
- Adjust policies based on data-driven insights

5

Impact: Circular Economy & Pollution Reduction

- Significant *reduction in plastic leakage* to oceans and land
- **Enhanced livelihoods** for waste workers & green jobs created
- National compliance with treaty reporting and global targets

PLASTIC POLLUTION | PROBLEM ANALYSIS TREE



Key Issues | Plastic pollution as a global crisis \rightarrow ecosystem damage, human health risks, and climate impact

Key cause | Insufficient integrated plastic management systems (production \rightarrow consumption \rightarrow collection \rightarrow recycling/ disposal)



Main Cause



Overproduction of singleuse plastics



Weak waste collection and recycling systems



Limited policy enforcement or incentives



Lack of public awareness and behaviour change



Detailed Cause

Lack of upstream regulation

• No caps on virgin plastic production

High dependency on single-use plastics

• Weak incentives for alternative materials

Insufficient waste collection infrastructure

• Rural and peri-urban gaps in waste

Low recycling capacity & efficiency

• Informal collection unintegrated into municipal systems

• Limited facilities for sorting, washing,

• Reliance on down cycling, minimal

Weak regulatory frameworks

- Inconsistent bans or regulations on single-use plastics
- Fragmented responsibilities across ministries

Exclusion of the informal waste sector

- No formal recognition or integration of waste pickers
- Missed opportunities for job creation and system efficiency



Insufficient financial mechanisms

- · Lack of EPR funds for green investment channels
- Minimal use of taxes or incentives to drive change

Limited awareness & behavioural change

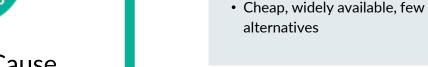
- Plastic literacy is generally low
- Campaigns are sporadic

Weak monitoring & data systems

• No or minimal national plastic inventories or leakage tracking

Low multi-stakeholder coordination

 Limited collaboration between government, private sector, and civil society



Limited extended producer responsibility (EPR)

• Producers not accountable for postconsumer waste

Poor segregation at source

high-quality recycling

and processing

· Lack of public awareness and clear guidance

RESULTS & IMPACT



Time-Phased Mapping of Policy Implementation, System Changes, & Environmental Results

	Action Area	Short-Term (1-2 yrs)	Medium-Term (3-5 yrs)	Long-Term (5+ yrs)
1	Ban/Phase-Out Problematic Plastics	Adopt national ban or phase-out policies; publish regulatory roadmap	Enforcement begins; local alternatives & compliance mechanisms are developed	Measurable reduction in single-use plastic production and leakage
2	Establish EPR Schemes	Draft EPR legislation; conduct stakeholder consultations	EPR system operational with producer registration and fee collection	Producers finance waste management; sustainable funding flows established
3	Plastic Inventories & Reporting	Conduct baseline plastic flow study; identify data gaps	National plastic registry and annual reporting in place	Transparent monitoring; enables compliance with treaty obligations
4	Waste Collection & Recycling Infrastructure	Prepare investment plans and secure initial funding	New sorting/ recycling facilities operational; coverage expanded	Significant increase in recycling rates; reduction in landfill & leakage
5	Informal Sector Integration / Just Transition	Map informal waste workers; design inclusion strategies	Pilot integration programs; training and protective measures provided	Formalised and protected workforce; improved livelihoods and social equity
6	Public Engagement & Behaviour Change	Launch national awareness campaigns; social media initiatives	Behaviour change observed in urban centres; increased participation in sorting/recycling	Culture shift toward reuse, reduced plastic demand, and sustained public participation