

# Plastics Policy

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# “Being in the room where it happens..”

Rwanda delegation adviser — UNEA Nairobi, 2022



UN Environment Assembly, Nairobi | March 2022



INC-5.2, Geneva | August 2025

Northeastern observer delegation — INC-1 through INC-5.2

Author, *The Untold Story of the World's Leading Environment Institution: UNEP at Fifty* (MIT Press)



*“What I saw was not failure—it was fatigue.”*

Nature, Vol 646, October 2025

# A Global Material System

*Designed in one country. Manufactured in another. Consumed in a third. Discarded in a fourth.*

No nation, however determined, can govern a system this interconnected alone.

**460M+**

metric tons produced annually — more than the weight of all humans combined

**91%**

of plastic waste never recycled

**20M+**

metric tons leak into the environment each year

**3x**

production projected to triple again by 2060

Fifth session of the Intergovernmental  
Negotiating Committee to develop an  
international legally binding instrument on plastic  
pollution, including in the marine environment



# Five Rounds. No Treaty.

INC-1	INC-2	INC-3	INC-4	INC-5	INC-5.2
<i>Uruguay</i>	<i>Paris</i>	<i>Nairobi</i>	<i>Ottawa</i>	<i>Busan</i>	<i>Geneva</i>
<b>Nov 2022</b>	<b>May 2023</b>	<b>Nov 2023</b>	<b>Apr 2024</b>	<b>Nov 2024</b>	<b>Aug 2025</b>
Mandate established	Zero draft text	Divisions emerge	Production contested	No agreement	Failed again

## The Core Fault Lines

### Production vs. Waste

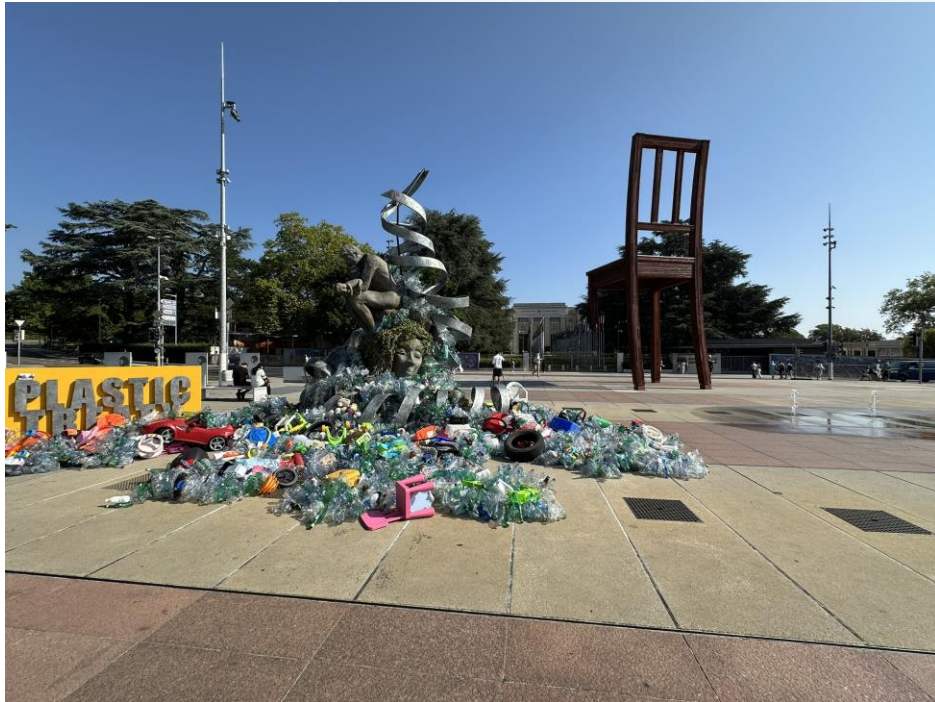
Oil-producing states resist upstream limits. EU and small island states push for caps on primary plastic production.

### Chemicals of Concern

Coalition grew from 65 to 90+ countries pushing for a hazardous chemicals registry — industry resistance remains.

### Finance Mechanism

Who pays? Developing nations need capacity before signing obligations. Finance first, obligations second.



# The Process IS the Policy

*Maurice Strong, Secretary-General of the 1972 Stockholm Conference*

## 01

### Vague Mandate

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UNEA called for “an end to plastic pollution” but left “end” undefined. Nations disagreed from day one on whether this meant better waste management or cutting production. Ambiguity hardened into a geopolitical divide.

## 02

### Compressed Timeline

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Two years to negotiate a legally binding treaty spanning energy, trade, chemicals, and waste sectors. The Montreal Protocol took years of consensus-building before a single formal session. Compressed timelines produced compressed ambitions.

## 03

### Leadership Vacuum

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No equivalent of Dr. Mostafa Tolba — the UNEP Executive Director who personally drove the ozone agreements through informal diplomacy. A technical secretariat without political leadership is not enough. The process saw more progress in one informal day than months of formal sessions.

# What History Teaches

*Successful environmental treaties share three elements.*

**D**

## **Institutional Design**

Clear mandate, realistic timeline, rules that enable decisions — not just conversations

**L**

## **Political Leadership**

Specific people making specific decisions. Not “political will” — that excuses everything and explains nothing.

**R**

## **Adequate Resources**

Finance, technical capacity, and implementation support built in from the start — not promised later

### **Path forward — three immediate actions:**

#### **Expand informal spaces**

Trust forms outside formal procedures. Montreal’s phased commitments were forged informally, long before formal adoption.

#### **Identify convergence**

All parties agree on sustainable design, circular economy, resource efficiency. Start there.

#### **Separate tracks**

Specialists define the problem with evidence. Diplomats decide through negotiation and trade-offs.

# The Fundamental Dilemma

## Option A

### Weak Treaty Universal

All 193 nations sign. Commitments voluntary, vague, lowest-common-denominator. Legitimacy without teeth.

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- + Universal participation
  - Limited real-world impact

## Option B

### Strong Treaty Limited

Ambitious production caps, chemicals registry, binding finance. But only 40–60 countries sign.

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- + Real impact if implemented widely
  - Biggest producers stay outside

## Option C

### Phased Approach of Implementation

Launch treaty with core obligations and planned ambition. Creates standards and market pressure.

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- + Captures existing commitment, more flexible
  - Includes producers and consumers, builds capacity

*The path to yes exists — if there is overlap between what some require and what others can accept.  
(Biniaz, Bodansky & Ivanova, Just Security, 2025)*

# Proof of Concept: Rwanda's Implementation Credibility

**Implementation credibility** — diplomatic authority derived from demonstrated capacity to translate commitments into durable domestic outcomes.

2002

First national plastic waste study commissioned— \$2,100 investment, catalytic evidence

2005

Ban on bags under 100 microns; imports drop 98%—from 1,092 to 18 tons in one year

2008

Comprehensive ban on all non-biodegradable polyethylene bags—one of the first in the world

2019

Expanded to all single-use plastics; Extended Producer Responsibility and PET Fund launched

2022

Rwanda & Peru co-sponsor UNEA Resolution 5/14—launching global plastics treaty negotiations



*“We came with the legitimacy of having already done the work at home.”*  
— Patrick Umuhiza, Rwanda INC negotiator

**88%**

waste collection coverage  
(vs. 40–52% in Nairobi,  
Dar es Salaam, Kampala)

**\$647M**

tourism revenue in 2024  
(up from \$131M in 2006  
before the full ban)

**#1**

cleanest country in Africa  
Rwanda & Norway  
co-lead High Ambition  
Coalition (75 countries)

# Cities. Companies. Campuses.

## Northeastern Plastics Center

40+ researchers | Science · Policy · Art · Culture · Engineering

*Education is diplomacy — we brought research, students, and cameras to INC-3 through INC-5.2.*

**500**  
+

US cities with plastic  
bag bans

**80+**

US universities with  
single-use plastic policies

**3x**

impact when cities,  
companies and campuses align

*Transformation happens from the middle out.*





Northeastern University  
Plastics Center

Making plastics safer in production,  
use, and once discarded



# Design Is the Bridge

## PRODUCTION

Where industry  
and oil states resist



## DESIGN

Materials · Chemicals  
Reuse · Biodegradability

This is an MIT-type problem.



## WASTE

Where NGOs and  
affected states focus

***The negotiating deadlock is between production and waste. Design dissolves that argument by making it technically moot.***

When design is thoughtful, responsibility follows. When it is not, even the strongest waste systems are overwhelmed.

**Engineers, materials scientists, and systems designers in this room are not just observers of this crisis. You are the path through it.**

*Art shifts culture. Policy locks in change. But design is the bridge.*

“

# Beauty will save the world.

— *Fyodor Dostoyevsky, The Idiot*

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*Art wakes us up. Culture changes what societies accept. Policy locks in what culture has already moved.*

**Decide** (leaders)

**Innovate** (engineers)

**Move** (artists)

**Reinforce** (policy)