Original Research Article

Policy brief—international agreement on plastic pollution: Negotiations

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Abstract: This policy brief provides an overview of the ongoing international negotiations for a global agreement to address plastic pollution, with a focus on marine environments. It outlines the purpose, key stakeholders, and potential implications of the agreement for industries, researchers, and the public. The brief highlights the urgent need for coordinated global action to mitigate the environmental and health impacts of plastic pollution and discusses the challenges and opportunities in reaching a consensus. It aims to inform manufacturers, policymakers, scientists, and the general public about the evolving regulatory framework and the importance of collective efforts to tackle this critical issue.

Keywords: Plastic pollution; International agreement; Marine pollution; Environmental policy; Global negotiations; Sustainability;waste management; Circular economy

1. Introduction

Plastic pollution has emerged as one of the most pressing environmental challenges of our time, with significant impacts on ecosystems, marine life, and human health. In response to this global crisis, international efforts are underway to negotiate a comprehensive agreement aimed at curbing plastic pollution, particularly in marine environments. This policy brief provides an overview of the ongoing negotiations, highlighting key objectives, stakeholders, and potential implications for industries, researchers, and the public. By examining the current state of discussions, this brief aims to inform manufacturers, policymakers, scientists, and the general public about the evolving regulatory landscape and the collective actions needed to address this critical issue.

2. Purpose of the policy brief

The primary purpose of this policy brief is to provide an overview and update on the negotiations for an international agreement aimed at addressing plastic pollution, including pollution in marine environments.

3. Audience

This policy brief can be read by manufacturers, plastic producers, and recycling companies that will be affected by the outcome of the negotiations and need to understand the potential changes in regulations and market conditions, journalists, bloggers, and the general public who are interested in environmental issues and want to stay informed about global efforts to tackle plastic pollution, also Scientists, scholars, and researchers who are studying plastic pollution and its impacts on the environment and human health, and who may contribute to the scientific basis of the negotiations.

4. Analysis

4.1. Overall environmental issue of concern

The overarching environmental issue at the heart of the negotiations is plastic pollution, which has escalated into one of the most severe and pervasive global environmental challenges. Plastic waste, particularly when it

degrades into microplastics or nanoplastics, infiltrates ecosystems, contaminates water sources, and accumulates in the food chain, posing significant threats to both the environment and human health. Research indicates that global plastic waste is projected to increase nearly threefold by 2060, with an estimated 12 billion metric tons of plastic waste expected to accumulate in landfills and natural environments if current trends continue.[1] This alarming trajectory underscores the urgent need for coordinated global action to mitigate the impacts of plastic pollution and transition toward sustainable alternatives.

4.2. Main objective(s) of the agreement

The primary objective of the proposed international agreement on plastic pollution is to establish a legally binding framework to comprehensively address plastic pollution across its entire lifecycle—from production and design to disposal and recycling. The agreement seeks to:

Initiate intergovernmental negotiations to develop a legally binding international instrument on plastic pollution by 2024, ensuring a unified global response to the crisis.

Promote sustainable product design and waste management practices, encouraging innovation in materials and processes that minimize environmental harm.

Reduce the use of harmful plastics, particularly single-use plastics, which account for a significant portion of global plastic waste.

Enhance global cooperation in preventing, reducing, and eliminating plastic pollution, fostering collaboration among nations, industries, and civil society to achieve shared goals.

By addressing these objectives, the agreement aims to create a systemic shift toward a circular economy model, where plastic waste is minimized, and materials are reused, recycled, or repurposed effectively.

4.3. Main policy instruments used to achieve the stated goals

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5. Limitations of the agreement in achieving its specific stated objectives and the overall environmental goal

While the proposed international agreement on plastic pollution represents a significant step toward addressing this global crisis, several limitations may hinder its ability to achieve its specific objectives and the overarching environmental goal of eliminating plastic pollution. These limitations stem from political, economic,

and scientific challenges that could slow progress or dilute the effectiveness of the agreement.

5.1. Negotiation disagreements among stakeholders

One of the most significant challenges facing the agreement is the divergent perspectives among stakeholders regarding its scope and priorities. These disagreements could lead to compromises that weaken the agreement's ambition or delay its implementation. Key areas of contention include:

5.0.1. Industry perspectives

Some chemical and petroleum industry organizations argue that the agreement should focus primarily on waste management and recycling rather than imposing restrictions on plastic production. These stakeholders emphasize the economic importance of the plastics industry and advocate for solutions that maintain production levels while improving recycling infrastructure and technologies.

5.0.2. Environmental advocacy perspectives

In contrast, many ocean and environmental conservation organizations insist that the agreement must include binding measures to reduce plastic production, particularly the elimination of single-use plastics. They argue that without addressing the root cause—excessive plastic production—efforts to manage waste and increase recycling will be insufficient to curb pollution.

These conflicting positions create a risk that the final agreement may prioritize lowest-common-denominator solutions that fail to address the full scope of the problem. For example, if the agreement focuses solely on waste management without addressing production, it may fall short of achieving meaningful reductions in plastic pollution.

5.2. Scientific evidence requirements

Another potential limitation is the reliance on scientific evidence to justify regulatory actions. While science-based decision-making is essential, the requirement for "sufficient" evidence to prove health or environmental threats could lead to delays and weakened standards. Specific challenges include:

5.2.1. Delayed action

The process of gathering and validating scientific evidence can be time-consuming, potentially delaying the implementation of critical measures. For example, proving the long-term health impacts of microplastics or the environmental consequences of specific chemicals used in plastics may take years, during which pollution levels could continue to rise.

5.2.1. Weakened standards

In some cases, the burden of proof may lead to the adoption of less stringent regulations, as policymakers may hesitate to impose restrictions without definitive evidence. This could result in regulatory gaps that allow harmful practices to continue unchecked.

5.2.2. Industry influence

The emphasis on scientific evidence may also provide opportunities for industry groups to challenge regulations by disputing the validity or sufficiency of the evidence. This could lead to prolonged legal battles and further delays in implementing effective measures.

5.3. Implementation and enforcement challenges

Even if the agreement is successfully negotiated, its effectiveness will depend on the willingness and capacity of participating countries to implement and enforce its provisions. Potential challenges include:

5.3.1. Lack of binding commitments

If the agreement includes non-binding or voluntary measures, some countries may fail to take meaningful action, undermining the collective effort to address plastic pollution.

5.3.2. Resource constraints

Developing countries, in particular, may lack the financial resources, technical expertise, and infrastructure needed to implement the agreement effectively. Without adequate support, these countries may struggle to meet their commitments, leading to uneven progress.

5.3.3. Monitoring and accountability

Ensuring compliance with the agreement will require robust monitoring and reporting mechanisms. However, establishing and maintaining these systems can be resource-intensive, and some countries may resist transparency or fail to provide accurate data.

5.4. Economic and political resistance

The agreement may face resistance from industries and governments that perceive it as a threat to economic growth or national sovereignty. For example:

5.4.1. Economic interests

The plastics industry is a significant contributor to the global economy, and restrictions on production could lead to job losses and economic disruption. This may prompt some countries to oppose stringent measures or seek exemptions.

5.4.2. Political will

In some cases, political considerations may take precedence over environmental goals. For instance, governments facing economic challenges or political instability may prioritize short-term economic gains over long-term environmental sustainability.

6. Conclusion

While the international agreement on plastic pollution represents a critical opportunity to address this global crisis, its success will depend on overcoming significant limitations. These include resolving stakeholder disagreements, addressing scientific evidence requirements, ensuring effective implementation and enforcement, and navigating economic and political resistance. To maximize the agreement's impact, negotiators must strive for a balanced approach that incorporates strong regulatory measures, supports developing countries, and fosters global cooperation. Without addressing these challenges, the agreement risks falling short of its ambitious goals and failing to deliver meaningful progress in the fight against plastic pollution.

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