

What the Ocean Needs from A Global Plastics Treaty

The imperative of a Global Plastics Treaty to secure our shared future



Introduction

In a world where the bonds of connectivity thread through every facet of our lives, a common fiber unites us all—the ocean. It is the rhythmic pulse that breathes life into our planet, interweaving itself with our existence through the sustenance we derive, the water we drink, the air we breathe, and the profound beauty that inspires awe in our hearts. The ocean, a true marvel of nature, has not only been the stage for our enjoyment and recreation but also the silent witness to a crisis that knows no bounds—a crisis born of plastic pollution and intertwined with the more-than-ever-pressing challenge of climate change.

Global plastic production has grown exponentially since the 1950s and is projected to reach roughly 450 million tons by 2025. Left unabated, it is estimated that annual production will reach 1.2 billion tons by 2060¹. As production increases, so does plastic pollution. The ocean accumulates a vast majority of this deadly pollution with an estimated 11 million metric tons of plastics entering the ocean every year from land-based sources². In addition to widespread contamination in the ocean from the seafloor to floating on its surface, scientists have discovered plastic pollution nearly everywhere they've looked—atop mountains, in Arctic sea ice, throughout our food system, and inside the human body.

When considering plastic pollution, it's important to note that not all plastics pose equal risk – some plastics stand out as particularly problematic. Most notably, single-use plastic packaging accounts for roughly 40% of annual plastic production globally, and nearly half of the most common items that litter our beaches, waterways, and the ocean³. As 99% of all plastics are made from fossil fuels, these same plastics and packaging formats are also where the petrochemical industry is investing most; thus, the plastics sector has become a major and growing driver of fossil-fuel demand and greenhouse gas (GHG) emissions. Made from and powered by fossil fuels, the plastics sector uses as much oil as global aviation⁴, producing 3-4% of global greenhouse gas emissions⁵. If the plastics sector's growth continues unchecked, plastics will account for 20% of global oil use by 2050⁶— more per capita than personal transportation⁷, which would result in 6.5 gigatons of GHG emissions annually by 2050, a nearly 300% increase over 2015 levels⁸.

The same petrochemical facilities that produce plastics also pollute the air and water with severe health consequences most commonly endured by neighboring, often coastal and fenceline communities. Equally concerning, plastic production relies extensively on chemical additives, including some 30 that have been listed as hazardous under the Stockholm Convention, including DDT, PCBs (polychlorinated biphenyls), dioxins, and furans. These chemicals have been shown to be detrimental to human and environmental health. By 2050, the plastics sector is projected to use 2 billion metric tons of these potentially harmful additives⁹.

The science is clear: we cannot effectively combat the twin crises of ocean plastic pollution and climate change without confronting our excessive use of plastics. The only way to truly address the plastic pollution crisis, and the

¹ OECD (2022). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options (Paris).

² United Nations Environmental Program (2022) report: [From Pollution to Solution](#)

³ Ocean Conservancy's [Charting a Course to Plastic Free Beaches report](#) identifies the top ten most commonly polluted single-use plastics and policy actions (including 5 items to phase out) to reduce pollution.

⁴ World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company (2016). [The New Plastics Economy: Rethinking the Future of Plastics](#).

⁵ Zheng, J., & Suh, S. (2019). Strategies to reduce the global carbon footprint of plastics. *Nature Climate Change*, 9(5), 374-378.

⁶ World Economic Forum, The New Plastics Economy: Rethinking the future of plastics (2016).

⁷ IEA (2018). [The Future of Petrochemicals](#).

⁸ Zheng, J., & Suh, S. (2019). Strategies to reduce the global carbon footprint of plastics. *Nature Climate Change*, 9(5), 374-378.

⁹ Geyer, R., Jambeck, J.R., and Law, K.L. (2017). Production, use, and fate of all plastics ever made. *Science Advances*, 3(7), e1700782.

climate crisis it has helped fuel, is to construct an agreement that embraces a holistic approach that extends across the entire lifecycle of plastic, including production, consumption, use, and disposal.

In the subsequent sections, we outline the options included in the zero draft text of the agreement and recommend the requisite provisions needed in a final agreement that achieve the highest levels of ambition and that protect the health of our ocean and the people and communities that depend on it.

Part I

The treaty should embrace a holistic approach that considers the full lifecycle of plastics to meaningfully address the plastic pollution crisis. It must be grounded in detailed and ambitious objectives and principles.

Objective: The objective of this agreement should be to end plastic pollution by 2040. Ocean Conservancy further supports the specific inclusion of “including in the marine environment” as currently written in the zero draft text. As the guiding principle for the agreement, it is paramount that the objective includes language to protect human health and terrestrial and marine environments.

Definitions: Clear definitions of terms used in the agreement are essential for building a robust and unambiguous instrument. Examples of terms that require clear definitions include, but are not limited to, “plastic”, “plastic product”, “single-use plastic”, “plastic pollution”, “polymer”, “producer”, “problematic plastics”, “avoidable plastics”, “microplastics (both primary and secondary)”, “recycling”, “bio-based”, “biodegradable”, “sectoral approach”, “life cycle” and “(full) life cycle approach”. The agreement should be inclusive across plastics and products, building on established definitions for plastics in existing international fora such as the Basel Convention¹⁰, the International Organization for Standardization (ISO)¹¹, and the Organization for Economic Cooperation and Development (OECD)¹². Other important definitions to include should be the categories and differentiation between primary and secondary microplastics, single-use plastics, and recycling and waste management definitions that protect against harmful chemical recycling technologies.

Additionally, should a sectoral approach be adopted, each sector (e.g., fishing and aquaculture, textiles, packaging) should be clearly defined and the provisions pertaining to each sector clearly identified.

Principles: The agreement should be grounded in strong principles building on those in other multilateral environmental agreements to guide implementation. Among others, the agreement should include:

- **Precautionary and Prevention Principle:** It is important to prevent plastics from becoming pollution by reducing the production and use of plastics overall and avoiding toxic chemicals in plastic production.
- **Polluter Pays Principle:** Producers of plastics should bear the costs associated with preventing, mitigating, and managing plastic waste and plastic pollution.
- **Science-Based Approach Principle:** The agreement should use scientific research, data collection, monitoring, assessment, and traditional knowledge to inform decision-making, policy development, and implementation of effective measures. It should foster scientific collaboration across governments and institutions and ensure that information and research related to the climate crisis are interlinked.
- **Environmental Justice Principle:** Ensure equitable distribution of the costs and benefits of plastics material management, prevent the cumulative impacts on vulnerable communities, and ensure that these communities and the informal waste collecting sector are active and valued participants in the negotiation and implementation.

¹⁰ [UNEP/CHW.16/6/Add.3/Rev.1](#) (May 25, 2023)

¹¹ [ISO 472:201](#): Plastics – Vocabulary. Geneva: International Organization for Standardization, 2013.

¹² Organisation for Economic Co-operation and Development. (2023). OECD Definition of Polymer. Retrieved from: <https://www.oecd.org/env/ehs/oecddefinitionofpolymer.htm>

- **Life Cycle Approach Principle:** Promote a comprehensive and systemic approach, considering the environmental impacts of plastics across their entire life cycle, including feedstock extraction, production, use, and disposal.
- **Remediation Principle:** The agreement should recognize the need to address and mitigate the existing and accumulated plastic pollution already in the environment (legacy pollution), particularly in coastal marine ecosystems.

Scope: The future instrument should be comprehensive and address the issue holistically. At a minimum, the two following components should be considered significant as part of the scope:

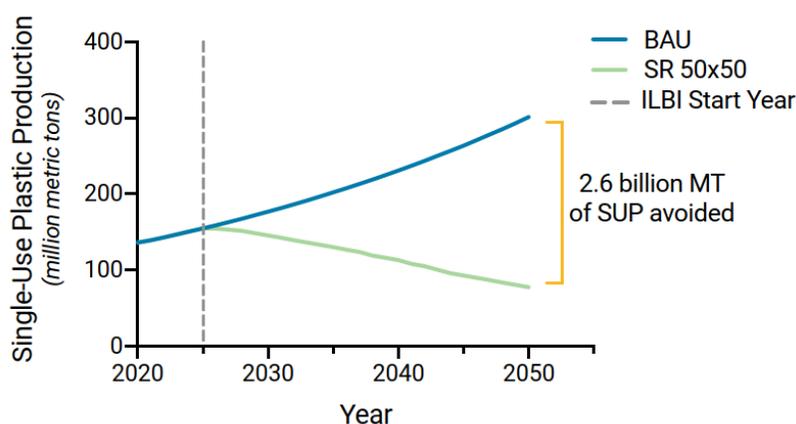
- **Materials and Substances:** The instrument should encompass all plastic materials and products that contribute to pollution, including single-use plastics for packaging and food service ware, fishing and aquaculture gear made of plastic, synthetic textiles, primary and secondary microplastics, and other plastic products commonly found in marine environments¹³¹⁴. Additional substances associated with the complete lifecycle of plastics, such as chemical additives, air emissions (including greenhouse gases and other harmful toxins) and water emissions resulting from plastic production, consumption, and disposal, should be considered.
- **Lifecycle:** The agreement should extend across the entire lifecycle of plastic, including production, consumption, use, and disposal. While it should focus upstream on the reduction of plastic production and consumption, it should also include components that focus on the circular design of plastics, transparency in the labeling of plastic products, environmentally sound waste management practices, and the remediation of legacy plastic pollution in the environment.

Part II

It is imperative to reduce the amount of plastics produced, which simultaneously exacerbates our plastic pollution and climate change crises.

Global Targets for Reduction: Primary Plastic Polymers

It is crucial that the agreement sets time-bound globally binding targets for the reduction of primary plastic polymers. Currently included as one of the options within the zero draft, choosing this path would be the single most effective strategy to reduce plastic pollution and associated climate impacts. To be effective, this option should make these targets ambitious, time-bound, and enforceable on a global scale to ensure meaningful progress. Based on the best available science, Ocean Conservancy is calling for a minimum 50% reduction of single-use plastics globally by 2050, which would eliminate an estimated 2.6 billion metric tons of plastics and prevent 10.8 to 11.5 billion metric tons of CO₂-equivalent emissions, equivalent to taking every car on earth off the road for over a year and a half¹⁵.



for annual global SUP based on business-as-usual (BAU) and 50% global source reduction by 2050 (SR 50x50) scenarios. The grey dashed line shows the start year of the ILBI, assuming it is completed by 2024 and implemented beginning in 2025.

¹³ The US Plastic Pact's "[Problematic and Unnecessary Materials](#)" list to be phased out by 2025.

¹⁴ Ocean Conservancy's [Charting a Course to Plastic Free Beaches report](#) identifies the top ten most commonly polluted single-use plastics and policy actions (including 5 items to phase out) to reduce pollution.

¹⁵ Ocean Conservancy's [Opportunities and Impacts of Single-Use Plastic Source Reduction in the Global Plastics Treaty report](#) models the benefit of a 50% global source reduction target in the treaty.

A Class-Based Approach to Toxic Chemicals

Beyond the physical presence of plastics as a pollutant, we must also address the less visible yet equally important aspect of the crisis—chemical additives associated with plastic production, use, and disposal. As there are over 13,000 chemicals associated with the plastics industry, to tackle this issue, the agreement must take a class-based approach to addressing chemicals of concern¹⁶. By addressing these chemicals that have similar impacts on human or environmental health as groups, we can avoid the “whack-a-mole” approach that often leads to regrettable substitutions in favor of implementing targeted strategies based on robust, precautionary criteria. Therefore, we support a combination of the options in the zero draft that includes this approach.

Prioritizing Solutions: Targeting Problematic Plastics

On the spectrum of plastic pollution, some plastics stand out as particularly problematic and, more importantly, entirely avoidable. To effectively tackle ocean plastic pollution, a focus on eliminating these items is imperative. Ocean Conservancy's *Charting a Course to Plastic Free Beaches* report¹⁷ based on nearly four decades of data from the [International Coastal Cleanup® \(ICC\)](#), identified the most common ocean plastic pollution items globally and outlined solutions to mitigate each item. In addition to being highly polluting in our ocean, many of these items are not recyclable. To end ocean plastic pollution, we must transition to a circular economy, which means phasing out plastics that are not recyclable, which is why a variety of solutions are needed to address these problematic items from bans to upstream redesign, to revamping recycling systems. We specifically identified five items that should be targeted for elimination, including as part of the agreement: plastic bags, expanded polystyrene foam, plastic straws, plastic cutlery, and plastic cigarette filters (also known as cigarette butts).

Microplastics: A Critical Oversight in the Zero Draft

Microplastics, plastics under five millimeters in size, are a particularly concerning type of plastic pollution as they are highly mobile, including in the food web and even in our own bodies, causing harm not yet fully understood. While the zero draft provided options for purposely produced and intentionally added microplastics (i.e., primary microplastics, such as beads added to cosmetics), most microplastic pollution in the ocean is from secondary microplastics, microplastics generated by the degradation of larger plastics, which are only vaguely referenced in the text. To meaningfully address the growing threat of microplastic pollution, the agreement must include comprehensive measures to address secondary microplastics, in addition to primary microplastics.

Specifically, the treaty should include pathway interventions to intercept, mitigate, or prevent the release of known sources of microplastics into the ocean. The precedent for this pathway approach is growing; for example, France established a policy that will require cheap and effective filters on washing machines to capture microplastics released by plastic textiles. Research has shown that the efficacy rate, depending on filters, and if it's by count or weight, washing machine filters can have an average microfiber capture between 78% to 87% of microfibers from the wash¹⁸. The agreement should include requirements to address known pathways for secondary microplastics (e.g., stormwater, washing machines, wastewater treatment, fishing and aquaculture gear, etc.) under provisions related to plastic emissions.

As the science surrounding our understanding of microplastics is quickly expanding, the treaty should exhibit flexibility, allowing for the integration of annexes or protocols in response to evolving research and updates. This adaptive framework ensures the treaty remains agile and responsive, reflecting the dynamic nature of our understanding and approach to mitigating microplastic pollution.

¹⁶ UNEP's [Chemicals in Plastics: A Technical Report synthesizes](#) the state of knowledge on chemicals in the plastic industry.

¹⁷ Ocean Conservancy's [Charting a Course to Plastic Free Beaches report](#) identifies the top ten most commonly polluted single-use plastics and policy actions (including 5 items to phase out) to reduce pollution.

¹⁸ Sivadas, S.K., et al. (2021). Potential Plastic Accumulation Zones in the Indian Coastal Seas. *Front. Mar. Sci. Sec. Marine Pollution*.

Alternatives

The precautionary principle should be applied to any potential plastic alternatives, including bio-based and/or biodegradable alternatives, to avoid unintended consequences or regrettable substitutions that impact human or environmental health. Moreover, science is clear that to end pollution and achieve a livable climate, this agreement must emphasize reduction, rather than one-to-one replacements.

Given that there is language “encouraging” the development or use of alternative materials in the zero draft, it should be replaced with a more precautionary approach in the final text.

This agreement must emphasize reduction, rather than one-to-one replacements.

Extended Producer Responsibility (EPR)

EPR policies are tried and tested policies that have proven effective at holding producers of difficult to manage waste accountable for end-of-life management of their products. Based on the polluter pays principle, extended producer responsibility policies shift the financial onus of collecting and recycling products and packaging from taxpayers and local governments to producers. With respect to plastics, and especially packaging, not only have these policies proven effective at increasing recycling rates, but they can also lead to improved upstream product design and ultimately, reduction if designed and implemented correctly¹⁹. This is precisely why it’s critical that the agreement includes language encouraging the implementation and harmonization of EPR policies for plastic packaging and other sectors (textiles, tires, fishing gear, etc.).

Emissions

In addition to establishing measurable and tangible reduction goals, the agreement should also include measures to prevent and eliminate emissions throughout the plastics lifecycle. As laid out in the zero draft, the final agreement should also include a process to require reporting measures and establish time-bound reduction targets for emissions from different sources.

Abandoned, Lost or otherwise Discarded Fishing Gear -- Ghost Gear:

Pound for pound, abandoned, lost, or otherwise discarded fishing gear (ALDFG), also referred to as ghost gear, is the deadliest type of ocean plastic pollution, which is why it is critical for this specific form of plastic to be addressed as part of the treaty. Negotiations to date and the zero-draft text have focused predominantly on land-based sources of plastic pollution with little discussion around potential control measures and obligations related to sea-based sources of plastic pollution, such as plastic fishing and aquaculture gear. ALDFG is a distinct form of marine plastic pollution with causes, impacts, and potential solutions being significantly different from other forms of plastic debris, which is why it warrants special consideration in the agreement.

Current frameworks to manage ALDFG (including under the International Maritime Organization and the Food and Agriculture Organization) are fragmented, largely voluntary, and inadequate. Their existence should not be a reason for inaction or lack of inclusion of ALDFG-specific measures in the instrument. Rather, the agreement should provide the overarching framework to complement, strengthen, and clarify existing frameworks related to ALDFG specifically.

While waste management provisions are an important part of tackling this problem, waste management alone is insufficient to address fishing and aquaculture gear plastic pollution.

The proposed measures in the zero draft for fishing and aquaculture gear fall solely under waste management. While waste management provisions are an important part of tackling this problem, waste management alone is insufficient to address fishing and aquaculture gear plastic pollution. To meaningfully address ALDFG, the treaty should address this type of plastic pollution as a separate category in the final agreement, and as recommended by Ocean Conservancy’s

¹⁹ The Recycling Partnership’s [Increasing Recycling Rates with EPR Policy report](#).

Global Ghost Gear Initiative, include a combination of global binding rules complimented by national action plans to address this holistically and across the full life cycle of plastics²⁰.

Trade

It is important to recognize that like other multilateral environmental agreements, some countries may not end up being party to some or all of the provisions in the final agreement. Therefore, it is critical that the agreement incorporate non-party trade provisions to prohibit market advantages or other perverse incentives for countries that do not join the agreement. These protections are vital to safeguard the integrity of the ambition achieved in the agreement and are noticeably missing from the current text.

Just transition: a human rights issue

To ensure a just transition for the countless workers, formal and informal, around the world impacted by plastic production, use, and disposal, a human rights and environmental justice approach must be incorporated throughout the agreement.

Throughout the plastics lifecycle, from extraction of feedstocks to production, use, and disposal, workers are exposed to greater health burdens due to regular handling of plastics and other harmful waste products and often working in hazardous conditions.

These workers are critical to plastic waste management globally; thus, significant consideration must be devoted to ensuring that their livelihoods are not eliminated. A just transition includes foundational roles for these workers in the growing reuse, refill, and repair economy. Moreover, it is critical that this section of the agreement includes the expertise and direct consultation from members of these communities, including the informal waste collector/picker sector, who recycle as much as 60% of all plastics recycled globally²¹.

Transparency

Standardized data reporting and monitoring are going to be critical to the long-term success of the agreement both in achieving the desired environmental outcomes and in creating a robust, transparent process for holding parties to the agreement accountable. This accountability would be bolstered through the creation of an initial baseline to inform and measure actions against, both globally and for individual national plans. These baselines, and subsequent reporting and measurements, must be made publicly available so subnational governments, citizens, and other stakeholders alike can hold countries accountable.

Transparency should not stop with member countries. Labeling requirements, chemical disclosures, and traceability are a strong start to holding producers accountable for their products and their full lifecycle impacts. Harmonizing these requirements across geographies will help businesses overcome reporting burdens and bureaucracies while ensuring accurate and complete information on the potential health and environmental impacts of products are disclosed.

Part III

Adequate, innovative, and just financing is needed to achieve the ambitious goals in the agreement.

Means of Implementation: Financing

Adequate financing is essential to support the ambitious goals that the ocean needs from this agreement. To this end, we support the outlined options of the text that would provide for a hybrid financing mechanism that combines the advantages of a specialized fund, with the resources and expertise available through an established institution. By partnering with an existing environmental fund, the hybrid mechanism would benefit from the experience,

²⁰ The Global Ghost Gear Initiative: [The impact of fishing gear as a distinct source of marine plastic pollution](#)

²¹ Lau, W.W.Y., et al. (2020) Evaluating Scenarios Toward Zero Plastic Pollution. *Science*, 369(6510), 1455-1461.

knowledge, and networks of the institution. This would help streamline project implementation, enhance technical support, and facilitate coordination with other environmental initiatives.

Additionally, the hybrid mechanism should explore innovative financing opportunities. This should involve engaging with public and private sector entities (including plastic producers through extended producer responsibility, taxes or levies, or other cost-sharing policies), philanthropic organizations, impact investors, venture capital, and other funding sources. Innovative financing mechanisms, such as green bonds, crowdfunding, and public-private partnerships, could also be explored to mobilize additional resources for remediation efforts.

Furthermore, considering the unequal pollution burden placed on some nations, the hybrid mechanism should prioritize efforts to reduce and eliminate the release of plastics, with a particular focus on vulnerable countries and SIDS. The hybrid mechanism should also include provisions specifically dedicated to addressing existing plastic pollution in the environment and the remediation of legacy plastic waste, particularly in areas of high cultural, ecological, and socioeconomic importance.

Part IV

It is important to develop and implement national action plans with a multilevel government approach, including subnational entities, and establish clear timelines and provisions for updating, reporting, metrics, and compliance.

National Action Plans, Implementation, and Compliance

To achieve the agreement's goal of ending plastic pollution, it is critical that countries move expeditiously in the development and implementation of national action plans. Furthermore, to be effective, these national action plans should have a multilevel government approach to include key subnational entities and best practices. The text should establish clear timelines, as well as rules and provisions for updating, reporting, metrics, and compliance. On this point, the establishment of a compliance committee is standard in other multilateral environmental agreements and is vital to achieving the desired environmental outcomes. This committee should be equipped with adequate authority to ensure compliance with binding measures outlined in the agreement.

Conclusion

The zero draft of the plastics treaty under negotiation has the potential for transformative change to tackle the global plastic pollution crisis. As reflected by countries and observers in the previous rounds of negotiations, there is a need for collective action to safeguard the ocean, which in turn, connects and protects all of us.

The release of the zero draft text has a unique opportunity to become the crucial turning point in our shared commitment to address the root causes of plastic pollution.

The ocean, resilient and timeless, requires our commitment to comprehensive, ambitious, and adaptable solutions. This report, a testament to that commitment, seeks not just to address the present crisis but to help build the foundation for a plastic-free future with our partners and negotiating countries.

The proposed approach doesn't merely scratch the surface; it delves into the core of the issue, proposing a shift in the status quo of plastics production, consumption, and disposal. These recommendations are rooted in our core belief that this process is more than a treaty; it is a roadmap to a future where the ocean thrives, unburdened by the weight of our plastic pollution footprint. As negotiations unfold, let our collective resolve be the wind in our sails, propelling us towards a horizon where the ocean's beauty flourishes and its well-being is intricately intertwined with our own.