

8. Advancing a Global Treaty on Plastic Pollution: Current Status and Challenge

Margaret Spring and Cindy Matuch

Since synthetic plastic was first developed in the early twentieth century, use and production has grown exponentially. In 1950, the world produced just two million metric tons of plastic per year.¹ By 2019, annual global use reached 460 million metric tons, and that amount is expected to nearly triple by 2060.² Every year, it is estimated that nineteen to twenty-three million metric tons of this plastic leaks into the aquatic environment alone—polluting lakes, rivers, and oceans.³ Today, the petroleum and chemical composition of many plastics, as well as plastic waste, is causing detrimental impacts to the climate, the environment, wildlife and ecosystems, and human health.⁴ In short, along with use and production, plastic pollution and its negative impacts have grown exponentially. Whole and broken-down plastics are readily seen on our streets and in our waterways, but they have also permeated the deepest parts of our oceans, the air above our tallest mountains, the food we eat, the water we drink, and our own bodies.

Basis for Negotiations: UNEA Resolution 5/14

¹ See Hannah Ritchie, Veronika Samborska, and Max Roser, “Plastic Pollution,” *Our World in Data* (2023), ourworldindata.org/plastic-pollution.

² See Philip J. Landrigan, Hervé Raps, Maureen Cropper, Caroline Bald, Manuel Brunner, Elvia Maya Canonizado, et al., “The Minderoo-Monaco Commission on Plastics and Human Health,” *Annals of Global Health* 89, no. 1 (2023): 1–215.

³ See United Nations Environment Programme, “Plastic Pollution,” www.unep.org/plastic-pollution.

⁴ See Martin Wagner, Laura Monclús, Hans Peter H. Arp, Ksenia J. Groh, Mari E. Løseth, Jane Muncke, et al., “State of the Science on Plastic Chemicals: Identifying and Addressing Chemicals and Polymers of Concern” (2024), doi.org/10.5281/zenodo.10701706.

The global effort to establish a treaty addressing plastic pollution has been a complex, multi-year process involving numerous stakeholders and a series of critical negotiations. This initiative was formally launched in March 2022, when during the resumed 5th session of the United Nations Environment Assembly (UNEA) (known as UNEA 5.2) over 175 countries approved UNEA Resolution 5/14, which called for the development of an international legally-binding agreement to tackle plastic pollution, including in the marine environment. The specific mandate was to develop an instrument, based on a comprehensive approach that addresses the full life cycle of plastic, and that would include both binding and voluntary approaches.

Specifically, the Resolution called for specific elements to be included in the instrument, such as:

- Objectives for the instrument
- Promoting sustainable production and consumption
- Promoting cooperative measures to reduce plastic pollution
- National action plans toward preventing, reducing and eliminating plastic pollution
- National reporting
- Periodic assessment of implementation progress
- Assessment of effectiveness toward achieving objectives
- Increasing knowledge
- Encouraging action across sectors (including a “multi-stakeholder action agenda”)
- Capacity building and technical assistance
- Promoting research and development
- Addressing compliance

It also asked the Intergovernmental Negotiating Committee (INC) to consider:

- Obligations, measures and voluntary approaches
- Need for a financial mechanism to support the implementation
- Flexibility, taking into account national circumstances
- The best available science, traditional knowledge, knowledge of indigenous peoples, and local knowledge systems
- Lessons learned and best practices
- The possibility of a mechanism to provide policy-relevant scientific and socioeconomic information and assessment related to plastic pollution; and
- Efficient organization and streamlined secretariat arrangements

That same year, the United Nations Environment Programme (UNEP) established the Intergovernmental Negotiating Committee (INC) to advance the work in accordance with Resolution 5/14, “with the ambition of completing its work by 2024,” and the ultimate goal of adopting a comprehensive legally-binding agreement by 2025.⁵

Progress on Negotiations 2022–2024

Negotiations officially began in 2022 with the first INC meeting in Uruguay (INC-1), which set the foundational elements for what would later become the “Zero Draft” of the treaty.⁶ Working documents provided and compiled by the Secretariat included potential “options” and

⁵ United Nations Environment Assembly (UNEA), “Resolution 5/14: End Plastic Pollution: Towards an International Legally-Binding Instrument,” Resolution Adopted by the United Nations Environmental Assembly (2022), digitallibrary.un.org/record/3999257.

⁶ United Nations Environment Programme (UNEP), *Report of the Intergovernmental Negotiating Committee to Develop an Internationally Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment, First Session* (United Nations Environment Programme, 2022).

“elements” for such a draft, as well as a “glossary of key terms” and a “plastic science” document.⁷

Subsequent meetings in France, Kenya, and Canada continued consideration of the key elements that would form part of a treaty text, gradually moving the process forward. In France, the Chair of the meeting was tasked with preparing a “Zero Draft” text of the international legally-binding instrument. The draft incorporated views expressed during the committee’s first and second session, as well as proposals submitted during the intersessional period.⁸ The scientific community emphasized the need for robust, multidisciplinary evidence to guide the treaty’s development, including addressing plastics’ full lifecycle and their widespread environmental and health impacts.

The third negotiating meeting in Kenya marked the beginning of textual negotiations. The scientific community urged action to be guided by integrated, interdisciplinary research to address the plastic pollution crisis comprehensively, emphasizing the need for solutions that respect cultural diversity and address socioeconomic vulnerabilities. However, member states’ review of the “Zero Draft” revealed divergent opinions on key treaty elements, such as plastic production and chemicals of concern.

⁷ United Nations Environment Programme, *Broad Options for the Structure of the International Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment, Taking into Account Paragraphs 3 and 4 of United Nations Environment Assembly Resolution 5/14* (Punta del Este, Uruguay, 2022); United Nations Environment Programme, *Potential Elements, Based on Provisions in Paragraphs 3 and 4 of United Nations Environment Assembly Resolution 5/14, Including Key Concepts, Procedures and Mechanisms of Legally-Binding Multilateral Agreements that May Be Relevant to Furthering Implementation and Compliance Under the Future International Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment* (Punta del Este, Uruguay, 2022); United Nations Environment Programme, *Glossary of Key Terms* (Punta del Este, Uruguay, 2022); United Nations Environment Programme, *Plastic Science* (Punta del Este, Uruguay, 2022).

⁸ United Nations Environmental Programme, *Report of the Intergovernmental Negotiating Committee to Develop an Internationally Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment, on the Work of its Second Session* (Paris, 2023).

These disagreements resulted in the draft becoming heavily bracketed, culminating in a seventy-page document later referred to as the “Revised Zero Draft.” Despite the need for further revisions, member states failed to agree on intersessional work to refine the draft ahead of the fourth meeting, leaving no formal mandate for such work. Consequently, informal efforts emerged to develop interim products, such as Switzerland drafting proposals addressing chemicals of concern and problematic or avoidable plastic products.

At the fourth negotiation meeting in Canada, discussions focused on the heavily-bracketed “Revised Zero Draft” compiled after the Kenya meeting. Some areas of greater convergence emerged, including around addressing plastic waste management and ensuring a just transition. The scientific community highlighted the critical need for a treaty to address the human health risks and adopt precautionary measures informed by scientific and Indigenous advice. However, significant divergence persisted regarding provisions on plastic production, chemicals and polymers of concern, and the overall scope of the instrument. For the first time, delegates agreed on formal intersessional work, with outputs to be considered at the fifth negotiating meeting in the Republic of Korea. Two ad hoc intersessional open-ended expert groups were established: 1) an expert group to develop potential sources and means for the establishment of a financial mechanism, and 2) an expert group to analyze criteria and non-criteria-based approaches with regard to plastic products and chemicals of concern in plastic products and product design, primarily focusing on recyclability and reusability. Additionally, a legal-drafting group was established to begin its work at the fifth session.⁹

The fifth meeting of the INC (INC-5) was held in Busan, Republic of Korea, from November 25 to December 1, 2024, and was intended to be the final round of negotiations. However, while it brought several

⁹ United Nations Environment Programme, *Report of the Intergovernmental Negotiating Committee to Develop an Internationally Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment, on the Work of its Fourth Session* (UNEP, 2024).

advancements, the meeting ultimately concluded without agreement on a final treaty text. Delegates agreed to reconvene in 2025 for a subsequent session, INC-5.2, to continue deliberations on a “Chair’s Text” that was circulated to INC members on December 1, 2024.¹⁰

Despite the lack of resolution, INC-5 saw both significant progress and persistent challenges, signaling cautious optimism about the treaty’s future. One of the notable achievements of INC-5 was the increased ambition displayed by a growing number of member states. Over one hundred countries expressed support for the text’s proposals to reduce the production of primary plastic polymers in alignment with global targets, emphasizing the urgency of addressing the upstream drivers of plastic pollution. Additionally, ninety-four countries backed a declaration calling for legally-binding obligations to phase out the most harmful plastic products and chemicals of concern. Eighty-five members supported a declaration referencing four key measures that would form part of an ambitious instrument. These declarations demonstrated a rising commitment to ambitious action, though they also underscored the deep divides that persist within the INC.

The “Chair’s Text,” which will serve as the basis for the next session, reflects the Chair’s perspective on the current state of the negotiations. Many member states agreed on the importance of integrating human health considerations into the treaty text, with discussions slated to consider either strengthening references to health within the provisions or including a standalone health provision. A global target for reducing primary plastic polymer production to sustainable levels has been incorporated into the “Chair’s Text” as a key option. There was also broad recognition of the need for predictable and equitable financing mechanisms, especially for developing countries, though specific modalities remain a point of contention. The Chair has noted that he saw

¹⁰ Intergovernmental Negotiating Committee to Develop an International Legally-Binding Instrument on Plastic Pollution, Including in the Marine Environment, *Chair’s Text* (Ottawa, 2024).

points of convergence, and he explained that there was divergence on issues that prevented the Committee from reaching consensus.

Fundamental disagreements remain over key aspects of the treaty, including its overall scope. The High Ambition Coalition of sixty-seven members has continued to promote addressing the full life cycle of plastics, encompassing production, consumption, and disposal. In contrast, members of the Like-Minded Countries (LMC) group, which includes major oil-producing states and large plastic producers, continue to prefer a more limited approach centered on downstream measures, such as waste management. The regulation of chemicals of concern in plastics has also emerged as a contentious issue. Some countries view these measures as essential to protecting human health and the environment, while others have labeled this a “redline” (meaning they are opposed to addressing the chemical composition of plastics within the treaty framework), citing that chemicals are addressed in other global regulatory frameworks and/or can be addressed nationally.

Financing for the treaty’s implementation has proven similarly challenging to negotiate, with debates about who should contribute to financing the treaty’s implementation, the balance between public and private sources of funding, and the form of the financial mechanism. Developing nations and coalitions such as the African Group and Pacific Small Island Developing States (PSIDS) have emphasized the need for predictable and equitable funding, particularly for developing countries. Several text proposals were introduced during INC-5. However, reaching agreement on the form and function of a financial mechanism for the treaty has been challenging, as member states continue to debate issues of responsibility and resource allocation.

The Road Ahead: 2025 and Beyond

Looking ahead, reaching convergence on several key areas will be needed to finalize a meaningful initial treaty text. The eighty-five members who supported the “Stand Up for Ambition” statement have clearly indicated

what they consider essential elements of a text, but the content and detail of those elements remain to be elaborated, including in ways that could be supported by an even wider array of members.

The consideration of the health impacts of plastics and ways that health protection will be integrated in the treaty measures has gained increasing attention over the course of the negotiations, with a majority of member states in support of including the protection of human health as a core objective of the treaty. This aligns with the approach taken in many other multilateral environmental agreements and reflects the growing recognition of the interconnectedness between environmental and human health, as well as the need for science-based measures to mitigate risks. While there is widely held alignment on an objective of protection of human health, the essential elements of this protection also remain to be determined in the continuing discussions.

Health—and environmental—protection will also be supported by the establishment of a scientific advisory body to support the treaty’s implementation. While there is broad agreement on the need for scientific input, the form, function, and composition of such a body have yet to be defined. There is an opportunity to consider appropriate models, based on experience from other instruments and analysis of their effectiveness, to inform the future discussions on the establishment, composition and terms of reference of such a body, including to ensure that the science and technical advice that will inform the treaty’s implementation and its evolution is free of conflicts of interest. Establishing an effective science-policy interface and science advisory mechanism will help to inform effectiveness evaluation of the treaty and ensure that it remains adaptive and responsive to emerging scientific knowledge, thereby enhancing its effectiveness over time. Coupled with this, effective decision-making and adjustment mechanisms will be key—as highlighted by those nations that supported the “Stand Up for Ambition Statement.” Negotiators have not yet tackled the question of decision thresholds head-on, but precedent

supports determining an appropriate majority threshold for decisions where no consensus can be reached.¹¹

The United States has played a key role in the negotiations through the end of 2024. The US is not a member of either the High Ambition Coalition or the Like-Minded Countries group and has sought to play a bridging role and find the proverbial “big tent” that all members could converge within. Ahead of INC-5, the US made its clearest statements of ambition to date, expressing support for reducing the production and consumption of primary plastic polymers and emphasizing the value of global criteria for addressing problematic plastic products and chemicals of concern. Nevertheless, the US did not join the group of over one hundred countries on a text proposal towards a global target and has not supported globally-binding obligations associated with such criteria, proposing instead—at INC-5—a menu of possible national actions which could be taken. Looking ahead, the change in US administration in 2025 is likely to further complicate the geopolitical landscape for environmental multilateralism and the conclusion of the plastics treaty negotiations.

As negotiations move toward INC-5.2 in 2025, the Chair and member states face the major task of bridging the remaining divides and reaching consensus on a number of core issues. The agreement that the “Chair’s

¹¹ “Provisions governing treaty amendment vary across international environmental agreements, although it is common to provide that Parties will make every effort to reach agreement on proposed amendments by consensus, and to specify a majority decision threshold if all efforts at consensus have been exhausted. For instance, under the Minamata Convention on Mercury, Stockholm Convention, and Rotterdam Convention, treaty text amendments are adopted by consensus, or if consensus fails, a three-fourths majority of Parties present and voting at a Conference of the Parties (COP); annex adoption and amendment is considered specifically with dedicated provisions covering the adoption and amendment of annexes in each instrument. The recently adopted Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity Beyond National Jurisdiction provides that the COP shall make every effort to adopt decisions by consensus, and that if all efforts to reach consensus have been exhausted, decisions on questions of substance (such as treaty amendments) require a two-thirds majority of the Parties present and voting” (Article 47).

Text” would be adopted as a basis for future discussions, combined with the alignment of a growing group of nations around some high ambition positions in Busan, offers a foundation for optimism. Ensuring that the treaty effectively protects human health and the environment, is adequately and reliably financed, and with effective means of decision-making and adjustment, including in response to the best available science ongoingly, will be crucial to achieving a robust and equitable agreement. Despite the challenges ahead, the determination and ambition displayed by a growing group of nations provide hope that a comprehensive treaty addressing plastic pollution is within reach despite the challenging geopolitical environment in which the negotiations will conclude and the significant economic interests in play.

Following finalization of the treaty text, next steps will be preparations for a Diplomatic Conference of Plenipotentiaries, at which time the text will be open for signature and decisions on any interim work to take place, ahead of the first Conference of the Parties (COP1). The period between finalization of the treaty text and COP1 is not yet clear and will depend in part on the timing for the treaty’s coming into force, which in turn depends on the agreed number of signatories ratifying the instrument. It is estimated that it may be two, three, or more years between finalization of the initial treaty text and entry into force, placing any major decisions that are slated for COP1 to 2028 or beyond. Based on the current draft text, it appears that many substantive decisions may indeed be deferred to decision at that first meeting, meaning that decisions made at the Diplomatic Conference on the work that is to take place in the interim period will also be critical to ensuring continuation of any necessary science and technical work that will inform key decisions at COP1.



Margaret Spring, JD, joined the Monterey Bay Aquarium in 2013 to oversee its conservation and science programs, the Seafood Watch and other global sustainable seafood initiatives, as well as its science and research activities, including the Monterey Bay Aquarium Research

Institute (MBARI). From 2009 to 2013, she held leadership roles in the National Oceanic and Atmospheric Administration (NOAA). She also led The Nature Conservancy's California coastal and marine program. From 1999 to 2007, she served in the US Congress as senior counsel, then general counsel, to the Senate Committee on Commerce, Science, and Transportation. She serves on the board of the California Ocean Science Trust, is Chair of the International Science Council Expert Group on Plastic Pollution, and chaired the National Academies of Sciences, Engineering and Medicine's (NASEM) Committee on United States Contributions to Global Ocean Plastic Waste. She was a member of the Munderoo-Monaco Commission on Plastics and Human Health. She served on the Ocean Studies Board of the National Research Council (2014–2020) and was founding board member of the Monterey Bay Fisheries Trust. From 1992 to 1999, she was an environmental attorney at Sidley & Austin in Washington, DC. She is a graduate of Duke University Law School and Dartmouth College.

Cindy Matuch is a marine scientist with expertise in science-policy engagement and environmental governance. From 2023 to 2025, she was a Science Policy Fellow at the Monterey Bay Aquarium, where she worked on plastic pollution policy and science-based advocacy. In 2025, she was selected as a John A. Knauss Marine Policy Fellow through the National Oceanic and Atmospheric Administration (NOAA) Sea Grant Program, serving in the Legislative branch. Matuch holds a bachelor's degree in marine science from California State University, Monterey Bay (CSUMB) and a master's degree in Coastal Science and Policy from the University of California, Santa Cruz (UCSC).