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The plastics treaty: steps forward, agreement deferred

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The United Nations Environment Assembly (UNEA) and the Intergovernmental Negotiating Committee (INC) have been working on an international legally binding instrument on plastic pollution, including in the marine environment (Plastics Treaty) since 2022. This piece presents a perspective on the current progress of the Plastics Treaty from the first session of the UNEA to the last session of the INC as of August 2025, highlighting different positions of States and groups of States, based on which, argues that some of the key contentions remain throughout the negotiations.

KEYWORDS

UNEA, UNEP, future trajectory, funding mechanism, scope of the treaty

1 Introduction

Despite the existence of several international conventions addressing plastic pollution, the fragmentation of them remains a significant issue (Wang, 2025; Kirk et al., 2024).¹ These instruments tend to compartmentalize the marine environment and enact specialized pollution rules. Consequently, they often regulate only specific facets of marine plastic pollution (Kirk et al., 2024), leaving significant gaps in addressing the full spectrum of plastic and the remediation of environmental damage (Wang, 2025, 2023). This dilemma has substantially impeded the advancement and effectiveness of international efforts to control plastic pollution. In light of these challenges, the resolution adopted by the United Nations Environment Assembly (UNEA) and the ongoing development of an international legally binding instrument (ILBI) on plastic pollution, including in the marine environment (the Plastics Treaty) represents a crucial future direction for global plastic management.

Scholars have discussed the Plastics Treaty from different perspectives, for example, plastic control from the perspectives of specific States (Chang et al., 2024; Stöfen-O'Brien and Graham, 2024), from the perspectives of principles of international law (Wang, 2025; Xu et al., 2023), the supplementing role of the Plastics Treaty to the overall landscape (Wang, 2025; van der Marel and Stöfen-O'Brien, 2024), the challenges along the way of the new treaty (Wang, 2023), among others. Yet the overall progress, especially from UNEA sessions to INC sessions, have not been thoroughly analyzed, particularly the different positions of States and their core disagreements throughout the negotiations. This piece aims at systematically demonstrating the progress and gaps of the negotiations of the Plastics Treaty. This piece is structured as follows. After introduction, it summarizes the

UNEA sessions and INC sessions, with a focus on different positions of States, based on which, the future trajectories for the Plastics Treaty are discussed.

2 Gaps, progress and positions of States during negotiations

This section discusses gaps and progress of the Plastics Treaty, with a focus on States' different positions. Figure 1 demonstrates the timeline of key negotiation milestones.

2.1 The UENA sessions

In 2013, the United Nations Environment Programme (UNEP) Governing Council was re-designated as the UNEA. At its inaugural session in 2014, the UNEA adopted a landmark resolution titled “Marine Plastic Debris and Micro Plastics” (UNEP, 2014a). This resolution, building upon a proposal by Norway (UNEP, 2014b), underscored the detrimental impacts and origins of micro plastics. In direct response to the request from the first session of the UNEA (UNEA-1), a comprehensive study titled “Marine Plastic Debris and Microplastics: Global Lessons and Research to Inspire Action and Guide Policy Change” was issued (UNEP, 2016a). This study effectively extended the foundational content established at UNEA-1, offering concrete recommendations concerning the implementation of existing agreements and proposing novel methods and measures for plastic pollution prevention (Wang, 2023).

The second session of the UNEA (UNEA-2) convened in 2016, operating within the broader framework of the 2030 Agenda for Sustainable Development (UN, 2015). This ambitious agenda, adopted by the United Nations General Assembly in 2015, specifically aimed to “prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, by 2025” (UN, 2015). The outcomes of UNEA-2 were thus directly aligned with these overarching global objectives for environmental protection (UNEP, 2016b). UNEA-2 significantly broadened its focus to encompass the comprehensive issue of plastic pollution and microplastics generation (Wang, 2023). A key emphasis

UNEA-2 advocated for the establishment of public-private partnerships, recognizing the critical role of collaboration involving a wide array of actors in addressing plastic pollution (Cui, 2023).

At the third session of UNEA (UNEA-3) held in 2017, an open-ended *ad hoc* expert group was established, which convened twice prior to the fourth session of the UNEA (UNEA-4). The expert group was specifically mandated to conduct further in-depth studies on the sources of marine plastic debris and micro plastics (UNEP, 2017). A pivotal assessment report “Combating Marine Plastic Litter and Micro plastics: An Effective Assessment of Relevant International, Regional and Subregional Governance Strategies and Approaches” (UNEP, 2018) was presented by the expert group in 2018. This report systematically collated, categorized, and evaluated existing ILBIs pertaining to plastics governance (Wang, 2023). Based on its findings, the report put forth recommendations for either the revision and expansion of the current legal framework or, alternatively, the development of a new ILBI to address plastic pollution (UNEP, 2018).

The UNEA-4, held in 2019, called for strengthening the connection between science and policy (UNEP, 2019). A key emphasis was placed on mitigating the problem of marine plastic through the crucial mechanism of increasing resource recovery rates (UNEP, 2019). UNEA-4 articulated clear aspirations to encompass the entire life cycle of plastics, promoting a holistic approach to addressing plastic pollution (Wang, 2025, 2023).

The fifth session of the UNEA (UNEA-5) convened in two phases. By 2021, the escalating global plastic pollution crisis had galvanized numerous stakeholders, leading to widespread calls for the establishment of a new ILBI. During the initial phase of the UNEA-5 (UNEA-5.1), held in February 2021, States unequivocally reiterated the need to address plastic pollution (Wang, 2025; Sun et al., 2021). In response, the UNEP released an assessment report titled “From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution” (UNEP, 2021). This report was specifically designed to inform the discussions at the second phase of UNEA-5 (UNEA-5.2).

Prior to the UNEA-5.2 in 2022, following extensive negotiations within the Open-ended Committee of Permanent Representatives and subsequent contact group, States ultimately agreed to consolidate a unified draft resolution (Tu, 2022). This culminated in the adoption of a landmark resolution titled “End Plastic Pollution: Towards an International Legally Binding Instrument (End Plastic Pollution Resolution)” (UNEP, 2022a). The resolution adopts a comprehensive approach addressing the entire life cycle of plastics, which extends beyond pollution management to encompass all stages, from plastic production and design to consumption and disposal (Wang, 2025; Life Cycle Initiative, 2025). Additionally, it establishes a foundational framework for the ILBI and delineates essential provisions, including objectives, principles and strategies (Environmental Investigation Agency, 2025). Most importantly, it mandates the establishment of an Intergovernmental Negotiating Committee (INC) with the ambitious objective of concluding an ILBI by the end of 2024.

1 These international instruments include, *inter alia*, the International Convention for the Prevention of Pollution from Ships, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, the Convention on the Law of the Non-Navigational Uses of International Watercourses. For discussion on how they are relevant to the Plastics Treaty – for instance, how their fragmented approaches inform the need for a unified instrument, or how their enforcement mechanisms might serve as precedents, see Wang, S. (2023), International Law-Making Process of Combating Plastic Pollution: Status Quo, Debates and Prospects, Mar. Policy, 147; Kirk, E. A., Popattanachai, N., Barnes, R. et al. (2024), Research Handbook on Plastics Regulation Law, Policy and the Environment, Edward Elgar.

2.2 The INC sessions

The inaugural session of the INC (INC-1) commenced its work in 2022 in Uruguay (UNEP, 2025a). INC-1 featured extensive dialogues pertaining to the pivotal elements of the Plastics Treaty, including the scope, objectives, core obligations, control measures, capacity-building, technology transfer and financial support (UNEP, 2022b). Although consensus emerged on the necessity of addressing the entire life cycle of plastics, divergent perspectives persisted concerning the prioritization of specific segments within this life cycle. A notable point of contention centered on whether to emphasize upstream interventions, such as source reduction and production control (Wen et al., 2022), or downstream approaches, focusing on leakage prevention and end-of-life waste management (Chile, 2022; Peru, 2022; Switzerland, 2022). What States advocate for behind the upstream or downstream interventions is the concern over their economic interests. Plastic primary raw materials, predominantly hydrocarbons – such as natural gas, petroleum, coal – are processed into fundamental plastic monomers. As foundational chemical feedstocks, the governance of hydrocarbons intersects with critical sectors including energy and the chemical industry, encompassing processes from mining and production to transportation and storage of petroleum and natural gas. Similarly, processed plastic intermediate products are central to chemical manufacturing. As previously articulated by the United Kingdom delegation, these substances possess applications extending beyond plastic manufacturing (the United Kingdom,

2023). Consequently, their inclusion within the treaty's regulatory scope, and subsequent restriction, could exert significant economic repercussions on other domestic industries.

Concerning core obligations and control measures, divergence of views was centered on the preference for either a top-down model characterized by legally binding constraints, or a bottom-up approach with national flexibility and voluntary contributions (Beijing Luyan Center for Philanthropy and Development, 2023). These contrasting perspectives highlight the complex challenges in forging a globally harmonized approach to plastic pollution governance.

The second session of the INC (INC-2) honed in on twelve issues, including strategies for phasing out and reducing the supply, demand and use of primary plastics, alongside measures for reducing microplastics (Cowan et al., 2024). INC-2 prioritized strengthening waste management systems, promoting circular design principles, fostering the adoption of safe and sustainable alternatives (UNEP, 2023a). A key outcome was the mandate for the preparation of a Zero Draft of the treaty (UNEP, 2023a).

In September 2023, preceding the third session of INC (INC-3) in Kenya, the Zero Draft of the Plastics Treaty was finalized. The draft placed emphasis on several critical areas: the reduction of primary plastics, the elimination of certain polymers and chemicals, phasing out of short-lived plastics, fostering transparency in the production of plastic products, and promoting the reuse of plastics (UNEP, 2023b). To facilitate further deliberations, the draft offers multiple options for each element (UNEP, 2023c). The draft encompasses sixteen options for the scope of the Plastics Treaty,

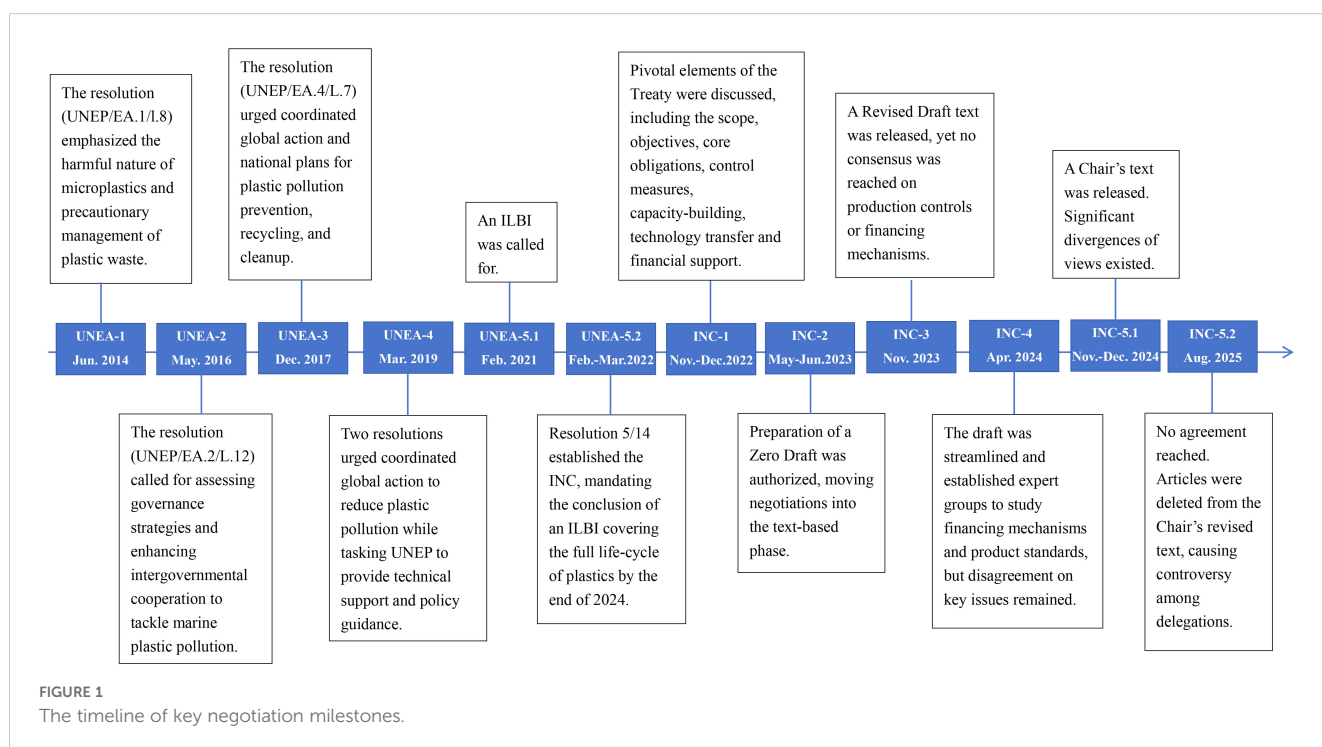


FIGURE 1
The timeline of key negotiation milestones.

which are primarily drawn from the statements of 22 national delegations.² These options can be categorized into five approaches, which highlight the complexities in reaching a consensus on the precise boundaries of the treaty:

1. Absence of standalone scope provisions (Option 0): it suggests that the instrument should not include specific provisions defining its scope.
2. Full life cycle coverage without explicit definition (Options 1, 2, 4, 7, 8, 11, 12, 14, 15): it does not provide a clear definition of what constitutes the full life cycle.
3. Comprehensive life cycle and all sources (Options 5, 16): it suggests an explicit cover over the complete life cycle of plastics, from extraction and production through design, use, consumption, disposal, and remediation, addressing all sources of plastic pollution.
4. Exclusion of upstream stages (Options 3, 6, 10, 13): it suggests excluding the initial stages of extraction and processing of primary raw materials, as well as virgin polymer production.
5. Scope defined by core obligations (Option 9): it suggests a clear definition of the full life cycle of plastics can only be established once the core obligations of the treaty have been mutually agreed.

At INC-3, deliberations spanned the entire plastics value chain, which includes upstream considerations, such as the control and reduction of plastic polymers and chemicals; midstream interventions, covering the control of plastic products, microplastics and enhanced producer involvement in product design; and downstream management, encompassing waste management strategies and the international trade of plastic waste (UNEP, 2023c). These comprehensive discussions were incorporated into the Revised Draft released in December 2023 (UNEP, 2023d).

The fourth session of the INC (INC-4) convened in Canada in April 2024. The primary objectives were to streamline the Revised Draft (UNEP, 2024a). Representatives from different groups of States focused on different aspects of the treaty. Notably, Kazakhstan (2024a) and Russia (2024a) object to the establishment of a special fund and the charging of fees for pollution, arguing such an approach ignores the differences in plastic pollution and governance capacity in different countries (Wang, 2025).

The above positions indicate that delegations shared the recognition that plastic pollution demands an ILBI, and that effective implementation will necessitate financial, technical, and capacity-building support (Wang, 2023). The key disputes lie in the *how* — the level of ambition, specific mechanisms, and the allocation of responsibilities (Wang, 2025).

One of the main issues is what constitutes the “entire life cycle of plastics” and whether plastic production should be addressed by the treaty (Earth Negotiations Bulletin of IISD, 2024). States’ positions can be summarized into several groups. Iran, Israel, Kazakhstan, Malaysia, China and Russia advocate for some sort of exclusion, including raw materials, intermediate products, primary raw materials, virgin polymer production (Kazakhstan, 2024b; China, 2024; Malaysia, 2024; Iran, 2024; Israel, 2024; Russia, 2024b). Conversely, the European Union (EU), Australia and other countries (the European Union, 2024; Australia, 2024; Thailand, 2024; Rwanda, 2024; Panama, 2024; Guatemala, 2024; Philippines, 2024) voted for including regulation of primary plastic polymers in the scope, believing that restricting production is an effective way to reduce plastic pollution, while Russia, Kazakhstan, Kuwait and other countries (Russia, 2024c; Kazakhstan, 2024c; Kuwait, 2024; Egypt, 2024; Vietnam, 2024) expressed strong opposition, believing that this is beyond the scope of the authorization of the UN resolution, which may have a negative impact on the petrochemical industry and their economy (Wang, 2025). Consequently, two expert groups were established subsequent to INC-4, aiming to further study the upwards of 3,700 elements that remained disagreed upon (UNEP, 2024a, 2024b).

The fifth session of the INC (INC-5.1) convened in November 2024 in Korea. One month prior to INC-5.1, the INC Chair’s “Non-paper 3” was released (Valdivieso, 2024), which was designed to replace the Revised Draft. INC-5.1 was strategically organized into four contact groups with distinct focuses to facilitate detailed and thematic negotiations (UNEP, 2024c). This approach aimed to ensure comprehensive coverage of the myriad components necessary for the ILBI (UNEP, 2024c).

The Chair’s Text was released then in December 2024 (UNEP, 2024d). A notable feature was that Article 3 and 6 are the sole articles entirely enclosed in “box codes”, implying their potential for complete deletion if consensus cannot be achieved. Furthermore, significant controversy surrounds Article 11 on the financial mechanism. While there is a general consensus on the necessity of establishing such a mechanism, considerable disagreements persist regarding the allocation of responsibilities and obligations, the source and utilization of funds, and the operational modalities of the mechanism (Wang, 2025; UNEP, 2024d).

The second part of the fifth session (INC-5.2) took place in August 2025 in Switzerland, and no treaty was adopted (UNEP, 2025b). Despite 10 days of intensive negotiations, disagreements persisted. The Chair’s draft deleted the terms of scope and definitions, including those for “plastic”, “plastic pollution”, “plastic products” and “plastic waste”. This means, plastic was not defined at all in the Plastics Treaty in this draft. Articles 6, 14 and 19 were also deleted, which sparked intense controversy. The EU criticized the text for violating the authorization of UNEA and lacking full life-cycle management; the United States claimed that the draft crossed a red line; The Arab Group, China, India, Iran and others strongly opposed the new category of “developing countries with financial capacity” introduced in the Chair’s draft, calling it unjustified and unauthorized (Earth Negotiation Bulletin of IISD, 2025). The Chair’s revised text was

² They are: Costa Rica, India, Indonesia, Turkey, Russian Federation, Samoa on behalf of the Alliance of Small Island States (AOSIS), Chile, China, Iran, Kenya, Mexico, European Union, Cook Island, Norway, Panama, Singapore, Africa, Guatemala, Philippines, Republic of Korea, Qatar, Fiji.

TABLE 1 Disagreements at the INC-5.2.

Core dispute	Supporting States	Opposing States
Article 2, whether to define pollution across the entire life cycle (or waste only)	Australia, Kazakhstan, Africa Group, Bangladesh, Sri Lanka, South Africa	Arab Group (Saudi Arabia on behalf of 22 states), Iran, Russia
Article 3, whether to create a legally binding list of restricted plastic products	Cuba, Philippines, Switzerland and Mexico on behalf of a group of 85 countries	Iran, Uganda ¹
Article 6, whether to limit virgin plastic output at global level	Panama (on behalf of 89 states), Congo, Vanuatu (on behalf of PSIDS)	Arab Group (Saudi Arabia on behalf of 22 states), Qatar, Russia, India, Malaysia, Kazakhstan ²
Article 11, whether to create new fund and recognize historical responsibility	Arab Group (Saudi Arabia on behalf of 22 states), Tunisia, Africa group, GRULAC coalition, AOSIS, Cambodia	US (keeps GEF and establish a Public-Private Coordination Network)
Article 12, whether to include provisions for waiving intellectual property rights, or concessional and preferential terms for technology transfer	Arab Group, LMC, Cuba, Cambodia	European Union, Russia
Article 19, whether to include a stand-alone health obligation in the treaty	Arab Group and LMC	Africa Group, Brazil, European Union, Philippines, Côte d'Ivoire, Sri Lanka, PSIDS

¹Brazil, Korea and Russia support for creating a global list, but emphasizing flexibility and exceptions.

²Indonesia and South Africa support an article reframed as "Sustainable Consumption and Production", focusing on cooperation, reporting, and national discretion, not binding reduction targets.

released on the last day of INC-5.2 and was also criticized by delegations, as illustrated by Table 1. Eventually, INC-5.2 failed to reach into an agreement.

3 Discussion

While being called "the most important negotiation you've (probably) never hear of" (Bodansky, 2024), INC-5.2 failed to adopt the Plastics Treaty. Throughout the UNEA and INC sessions, progress has been made yet the key contentions remain, which arguably represents that the fundamental disagreements among States did not progress, leading to the failure of the ambition to finalize the instrument by the mandated 2024 deadline.

The fact that INC-5.2 did not conclude the Plastics Treaty reflects that the ambitious States may have set up too high a target that others are not ready to or capable of reaching it. Or from the opposite perspective, States depending more on plastic, regardless of which stage out of the cycle, are not provided with sufficient replacement for their dependency, either economically, socially or industrially. The failure to finalize the treaty also indicates that the middle ground where both sides meet by compromising their interests and needs has not been found yet.

Scholars have suggested that the negotiations of other instrument can shed light on the Plastic Treaty (Beringen, 2025; Li and Xing, 2024). One lesson is that an effective treaty on plastics pollution control requires major players such as China, India and the United States to be a part of, which means the disagreements identified in this piece require compromise by both the ambitious States and the others.

As such, the way forward for the Plastics Treaty requires a strategic and conciliatory approach that acknowledges the deep-seated disagreements over scope, legal frameworks, and financial

mechanisms. Common ground could involve flexible provisions that accommodate differing national priorities, including economic dependencies on plastics and capacity constraints. Establishing phased commitments or interim measures could serve as practical steps to bridge gaps, allowing Parties time to build capacity. Ultimately, consensus will depend on balancing environmental ambitions with social and economic realities, emphasizing a collaborative approach that strives for not only equitable but more importantly achievable outcomes to ensure the treaty's successful finalization and adoption.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material. Further inquiries can be directed to the corresponding author.

Author contributions

JG: Conceptualization, Methodology, Project administration, Supervision, Funding acquisition, Writing – review & editing, Validation, Writing – original draft. RH: Data curation, Investigation, Writing – original draft.

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