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Divergences and challenges in the negotiation of the global plastics treaty: China's pathway in advancing global ocean plastic pollution governance

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The current international legal framework for addressing marine plastic pollution is fragmented and lacks binding legal force, making it insufficient to meet the demands of marine plastic pollution governance. Although the international community generally recognizes the necessity of establishing a Global Plastics Treaty, the second part of the fifth session of the Intergovernmental Negotiating Committee (INC-5.2) in 2025 still failed to finalize the treaty text. This study adopts a text analysis approach, focusing on the latest Chair's Text produced during INC-5.2, which reveals that significant disagreements persist among countries on key issues, including the treaty's scope of regulation, funding mechanisms, and legal enforceability. As a major global producer and consumer of plastics, China holds significant influence in shaping plastics governance. These disagreements pose challenges for China in terms of normative leadership, funding contributions, and the implementation of governance principles in addressing marine plastic pollution. China can prioritize strengthening regional cooperative governance, providing regional experiences that support the negotiation and implementation of binding provisions under the Global Plastics Treaty, thereby enhancing the institutional leadership. In terms of funding mechanisms, China can act as a bridge to coordinate interests among different groups of countries, promote the implementation of the principle of common but differentiated responsibilities, and expand funding sources through mechanisms such as BRICS. Finally, China can reinforce the promotion of governance concepts, translating them into concrete systems and practices to enhance its soft power, strengthen its voice in marine plastic pollution governance, and offer Chinese approach to this global issue.

KEYWORDS

marine plastic pollution, marine environmental protection, Global Plastics Treaty, international environmental law, common but differentiated responsibilities, life cycle assessment, China–ASEAN environmental cooperation

1 Introduction

The problem of marine plastic pollution is becoming increasingly serious. Establishing a specialized yet comprehensive global plastic treaty has become an international consensus for effectively addressing this issue (Dauvergne, 2023; Tessnow-von Wysocki and Le, 2019). The Chair's text released during the second part of the fifth session of the Intergovernmental Negotiating Committee (INC-5.2) indicates that significant differences persist among countries on key issues, including restrictions on plastic production, funding mechanisms, and the treaty's binding nature. Some provisions have not only been weakened compared to previous versions but, in some cases, have regressed. These changes pose substantial challenges to China's participation in addressing marine plastic pollution. As the world's largest producer, consumer, and affected party, China occupies an irreplaceable role in global plastic governance. The effectiveness and extent of China's engagement in tackling this issue directly influence the achievement of treaty objectives and the broader trajectory of global governance. If China encounters increased obstacles due to weakened institutional frameworks, the overall efficacy of global plastic pollution governance is likely to be undermined (Chen et al., 2023; Wang et al., 2020). This paper addresses the following research question: How should China develop strategies to address weakened provisions and institutional divergences within the global plastics treaty, ensuring effective participation in marine plastic pollution governance while promoting global governance objectives?

Current literature on this topic can be broadly categorized into two streams. The first stream focuses on issues within the plastic treaty and the broader global governance system, while the second examines China's strategies and practices under the treaty framework. Some research emphasizes that the Common but Differentiated Responsibility (CBDR) principle should occupy a central role in the global plastic treaty, proposing that developing countries participate in plastic pollution governance according to their respective capacities (Wang, 2025). Other studies concentrate on mechanisms that remain highly contentious in current treaty negotiations, highlighting the need for fairness and feasibility in designing financial mechanisms (Dauvergne et al., 2025; March and Winton, 2025). Other studies concentrate on mechanisms that remain highly contentious in current treaty negotiations, highlighting the need for fairness and feasibility in designing financial mechanisms (Dauvergne et al., 2025; Ralston and Taggart, 2025). The above literature serves as the empirical and conceptual basis for this paper's analysis of institutional shifts in global plastic governance and the underlying differences between nations. Research on China consistently centers on its strategic choices within this global framework. One study, analyzing gaps between Marine Environment Protection Law of the People's Republic of China and the global plastics treaty, argues that the country should strengthen Extended Producer Responsibility (EPR) mechanisms, enhance enforcement capabilities, and promote international cooperation to position itself as a leader in global ocean governance (Chang and Saqib, 2025). Another study employs a SWOT analysis to evaluate China's strengths and weaknesses in plastics governance, suggesting it leverage its industrial advantages to

advance international cooperation while upholding the CBDR principle and improving governance effectiveness through differentiated regulation (Zhou and Xu, 2025). Furthermore, analyses of past global plastic treaty negotiations suggest that China should actively guide the global governance process by advancing domestic and international legislation and engaging in bilateral and multilateral cooperation (Zhang and Jiang, 2024). These studies provide empirical foundations and conceptual frameworks for proposing China's response strategies in this paper, offering references for specific measures and key focus areas. However, gaps remain in the literature: research perspectives remain relatively narrow, with limited comprehensive analyses of China's role in global plastic governance, and insufficient attention has been paid to the role of soft power, with strategic discussions from the perspectives of national influence power still lacking.

This paper consists of three parts. Chapter 2 focuses on the recently released Chair's text (2025)¹ from the Fifth Session of the Negotiating Conference on the United Nations Convention on Plastic Pollution (INC-5.2). Based on textual analysis and drawing upon global public goods theory, this chapter systematically summarizes the weakening and regression observed in the text regarding its scope of governance, funding mechanisms, and binding provisions. Chapter 3 analyzes the challenges to China arising from new developments in global plastic treaty negotiations from political, economic, and cultural perspectives. Chapter 4 proposes a strategic framework for China's response, integrating public goods provision theory and soft power theory. This framework specifically includes enhancing institutional leadership through strengthened regional governance, exploring new financing mechanisms, and enhancing China's soft power in tackling marine plastic pollution.

2 Disagreements in negotiations on a global plastics treaty

The INC-5.2 session, which concluded on August 15, 2025, failed to produce a formal text for the Global Plastics Treaty due to significant disagreements among nations. This outcome indicates that countries have been unable to reach consensus, and negotiations for the treaty have reached an impasse. Compared to documents such as the Chair's Text (2024) produced at INC-5.1, the Chair's Text (2025) from INC-5.2 exhibits significant changes. While some content has been simplified, certain provisions have been broadened and rendered more ambiguous, and the text contains numerous contentious elements, reflecting substantial divergences among nations in the current negotiations.

Textual analysis of the Chair's Text (2025) reveals that the main areas of disagreement concern the treaty's scope of regulation, financial mechanisms, and compliance monitoring and dispute

¹ To avoid confusion, this paper refers to the Chair's Text issued at INC-5.1 as Chair's Text (2024), and the Chair's Text issued at INC-5.2 as Chair's Text (2025).

resolution mechanisms. The governance objectives of the treaty exhibit non-exclusive and non-rival characteristics, thereby positioning it as an international public good. The aforementioned three areas of disagreement correspond, respectively, to the scope of supply, effectiveness of supply, and assurance of supply for this public good, directly limiting the treaty's effective provision as an international public good (Kaul and Le Goulven, 2003; Yang, 2006).

2.1 Disputes over the scope of treaties: the game between environmental protection and the right to development

Neither the existing Basel Convention nor the Stockholm Convention has effectively addressed the full life-cycle challenges of plastic pollution (Jung, 2023). Consequently, UNEA Resolution 5/14 explicitly requires the new instrument to adopt a "life-cycle approach" (LCA). However, Chair's Text (2025) removed provisions from Chair's Text (2024) that encouraged the LAC approach, waste disposal and waste hierarchy requirements, and the appendix product list, placing greater emphasis on voluntary proposals. Since INC-1, disagreements over production restrictions and the scope of pollution have persisted (Cowan, 2024). Plastic production is closely tied to fossil fuels, and restricting plastic sources will directly impact industrial restructuring. Industrial transformation is fundamentally a matter of equity and the right to development (Bauer et al., 2022; Stoett et al., 2024). This issue manifests as a conflict between those advocating for life-cycle governance, represented by the Kaohsiung Heart Alliance countries, and those opposing production intervention, represented by the United States and the Global Alliance for Sustainable Plastics (Tiller et al., 2024).

Relying solely on waste management cannot address the global issue of marine plastic pollution (MacLeod et al., 2021). From the perspective of international public goods theory, these differences essentially reflect the game of "scope of supply" of global environmental public goods. If marine plastic pollution control is limited to waste management, it will lead to insufficient supply and aggravate the phenomenon of free riding. Broad coverage and mandatory restrictions will help ensure the overall effectiveness of public goods. At the same time, according to the CBDR principle and the theory of global environmental justice, production restrictions and scope expansion imply high governance costs, and developing countries and oil or plastics producers therefore emphasize the right to development and autonomy. Generally speaking, the dispute over the scope of a treaty is not only a technical problem in the design of the treaty, but also a contradiction between environmental protection and the right to development.

To ensure the effectiveness of the global plastic treaty, the LCA and the product list system should still be introduced into the future treaty. In order to take into account the interests of all parties and promote the smooth conclusion of the Convention, the LCA and the product list system should be placed in the position of scientific tools, and at the same time, it should be clearly stipulated to

link them with national capabilities, refine specific responsibilities for different countries, and reduce the geographical risks of some countries.

2.2 Divergence on financial mechanism: financial obligations and private subject status

Article 10 (Financial Resources and Mechanism) of the Chair's Text (2025) still contains a significant number of unresolved issues regarding the financial mechanism. It reflects the fundamental differences between developed and developing countries on the "allocation of responsibilities". The core contradiction can be summarized as two points, namely, the obligation to provide funds and the composition of sources of funds.

Among them, in terms of the obligation to provide funds, there are differences on whether the contracting parties are forced to provide or raise funds within their capabilities and whether the developed countries are forced to invest, which reflects that no consensus has been formed on whether the responsibility for investment is a mandatory obligation or a flexible commitment. In terms of financial mechanism, Chair's Text (2025) has designed a hybrid financial mechanism, including the Global Environment Facility (GF) Trust Fund, the new special multilateral fund and the public-private coordination network. The mechanism strengthens public-private partnerships (PPPs), formally incorporates the private sector into the treaty's implementation mechanism, participates in the provision of funds, technology transfer and capacity building, while the private sector often exists as a voluntary participant in other international environmental conventions. Greater private sector participation will magnify the asymmetry of power in global governance (Ugarteche, 2016).

From the perspective of international public goods theory, the differences in the funding mechanism of the plastic convention can be interpreted as disputes over the core issue of "who will provide public goods". Due to the "free riding" problem of environmental protection public goods, a financial mechanism that emphasizes voluntariness and flexibility is more in the interests of developed countries. Based on the CBDR principle, developed countries and developing countries should undertake different environmental obligations, so developing countries hope that developed countries can undertake stable, compulsory and predictable financial obligations. The introduction of private companies is a double-edged sword. On the one hand, it can broaden financing channels, reduce national financial pressure and improve efficiency; On the other hand, private capital is mainly driven by profits, and short-term profitability is incompatible with the long-term public interest, high-risk and low-return characteristics of environmental governance (Matters, 2021). This means that excessive reliance on the private sector may lead to unstable supply of funds, neglect of key projects and limited benefits for developing countries. In the negotiation of INC -5.1, a large number of petrochemical industry lobbyists greatly affected the negotiation process and the participation of scientific groups (Shah and Wu, 2025). It can be

foreseen that the excessive participation of private capital in the treatment of marine plastic pollution will have an adverse impact on the treatment effect. Public finance should remain the core source of funding for global environmental governance, with private capital only as a supplement. The mechanism of the global plastic treaty should further clarify the scope of mandatory financial obligations and reasonably define the areas, extent and manner of private sector participation.

2.3 Weakened compliance monitoring and dispute resolution mechanisms: the trade-off between sovereignty and treaty implementation efficiency

Whether a treaty can be effectively implemented depends not only on the binding force of its legal text but also on appropriate compliance monitoring and dispute resolution mechanisms (Raustiala, 2005; Koremenos and Betz, 2012). From its inception, the convention was envisioned as “legally binding”. However, if it ultimately remains merely soft law or a framework agreement, it will struggle to overcome existing governance fragmentation and free-riding issues.

Compared to Chair's Text (2024), Chair's Text (2025) exhibits a trend toward weakened enforceability, particularly evident in the diminished compliance monitoring and dispute settlement mechanisms. Specifically, the weakened compliance monitoring mechanism is reflected in the treaty's narrowing of the proposed Compliance Committee's authority, while state planning and reporting obligations are designed to be more encouraging and voluntary in nature. In terms of effectiveness assessment, the new version contains terms such as respect for national sovereignty and rough assessment, which reduces the binding force of the treaty. For the dispute settlement mechanism, the Chair's Text (2025) continues the basic principle of limited consultation, but it removes the requirements for the use of procedures in the Chair's Text (2024) and restricts the functions of the mediation committee to making suggestions. This change reduces the possibility of enforcement in dispute settlement.

On the whole, the latest version further compromises with national sovereignty in terms of compliance supervision and dispute settlement, improving political acceptability at the expense of implementation efficiency. This institutional arrangement highlights the contradiction between sovereignty and enforcement effectiveness in international environmental treaties. Some countries advocate the establishment of uniform standards and strict reporting, review and accountability systems, while large plastic producers and oil-dependent countries tend to make their own national action plans (Meng and Tingting, 2024). Both the European Union and non-governmental organizations such as the World Wide Fund for Nature or World Wildlife Fund (WWF) have expressed their resistance to the Chair's Text (2025) (Press and Information Team of the Delegation to the UN in Geneva, 2025; WWF, 2025). The design of future conventions should aim to establish institutional arrangements that balance national

sovereignty with collective enforcement, thereby ensuring that such conventions are substantive and capable of producing tangible outcomes.

3 Challenges of the deadlock in global plastic treaty negotiations to China's plastic pollution governance strategy

The deadlock of the global plastic treaty at the INC-5.2 meeting reflects the predicament of multilateral negotiations in the field of marine plastic pollution governance. As the world's largest producer, consumer, and exporter of plastics, China is also one of the countries most threatened by plastic pollution, playing a crucial role in the governance of marine plastic pollution (Trankmann and Tu, 2023). Compared with the 2024 version, the Chair's Text (2025) formulated at INC-5.2 has undergone significant changes, with some wording becoming broader and more ambiguous, and certain weakening and regression in terms of compliance supervision, dispute settlement, and funding mechanisms. This change not only reflects the major differences among countries in the aforementioned aspects but also indicates that the draft deviates from the goals set out in the UNEP 5/14 Resolution in terms of the whole-life-cycle governance and the strengthening of the treaty's binding force. Against this backdrop, China already faces obstacles in participating in and promoting the governance of marine plastic pollution. Now, key links such as its participation in the formulation of international norms, the financial investment, and the promotion of governance concepts may be further negatively impacted.

3.1 Challenges to China's normative leadership capability

In the Chair's Text (2025), the contents related to LCA and the list system have been weakened, with the relevant expressions becoming broader and more ambiguous, thereby undermining the normative authority of the global plastic treaty (Gorobets, 2020). In recent years, China has actively promoted high-standard LCA systems and pollution listing systems in its domestic plastic pollution governance. These methods and policies can effectively enhance the Scientificity and systematicity of governance, but they also require relatively high costs (Nikiema and Asiedu, 2022). Therefore, when international rules tend to be less rigid, some countries will lack sufficient willingness to adopt corresponding high-standard systems and measures. In East Asia and Southeast Asia, although China is at the forefront in the practice of LCA and pollution listing systems, with rich experience that can serve as a model for other countries and possess the potential for “norm diffusion” (Zhou and Xu, 2025; Gilardi and Wasserfallen, 2019). But it lacks mandatory regulations and effective channels for promoting its experience at the regional plastic governance level. If the international system fails to provide solid support, the promotion of China's governance experience will be significantly constrained.

If China's high-standard governance remains confined to its domestic context and fails to spread effectively to other countries, it will be difficult for China to form efficient regional cooperation with neighboring countries that have lower standards. The transboundary nature of marine plastic pollution can actually undermine the effectiveness of regional governance efforts.

During the negotiations for the Global Plastics Treaty, the provisions concerning LCA and mandatory inventory systems were further weakened and broadened, resulting in a lack of operational feasibility. Against this background, regional regulations and governance mechanisms often serve as alternative arrangements when international systems are inadequate (Peel et al., 2012). Currently, the European Union and the United States have already established de facto influence in plastic governance through regional legislation and industry standards. In 2018, the EU launched the "EU Plastics Strategy", which fully embodies the LCA principle. Specifically, it covers the entire chain of plastic product design, production, and recycling. By assessing the environmental impact of each link, it promotes the environmental transformation of the EU and Europe and ensures the sustainability of economic development (European Commission, 2025). The EU actively promotes the global influence of its regional regulations. Taking the EU's Single-Use Plastics Directive ((EU) 2019/904) (SUPD) as an example, it prohibits the placement of certain plastic products on the EU market and stipulates the Extended Producer Responsibility (EPR) system. These strict market access standards and compliance obligations may spread beyond the EU through the "Brussels Effect". At the diplomatic level, the EU actively participates in alliance-building through platforms such as the High Ambition Coalition (HAC) and demonstrates its international leadership by providing financial support. The United States exerts its regional influence through the private sector. Relying on its economic strength, it can shape its leadership in plastic pollution governance through the influence of the plastic supply chain (Xu et al., 2024). The United States exerts its regional influence through the private sector. Relying on its economic strength, it can shape its leadership in plastic pollution governance through the influence of the plastic supply chain. Representative initiatives include the "U.S. Plastics Pact" and the "Alliance to End Plastic Waste" (Business Coalition for a Global Plastics Treaty, 2025). At INC-5.1, representatives from the fossil fuel industry formed the largest group in the negotiations, highlighting the significant influence of the private sector in the negotiations of the global plastic treaty (Center for International Environmental Law, 2024). In contrast, China's plastic governance and other regional environmental cooperation efforts are mostly carried out around specific projects such as capacity-building and technology transfer (Lei, 2025; Zhu et al., 2024). Although cooperation based on specific projects is more conducive to practical implementation, it lacks the normative leadership demonstrated by the EU and the United States through institutional design and rule export.

The lack of normative leadership will put China in a passive position in regional institutional competition and international rule negotiations, leaving it without effective channels for rule export

and facing challenges in building long-term international influence. Especially in the Pacific region, China must directly confront the pressure from regional mechanisms such as the "G7 Plastic Initiative" led by the United States. As a result, China will find it difficult to play a leading role in the design of global plastic governance rules. International standards and rules will be more inclined to the models led by other countries or regions. Due to the limited application scope of the Chinese model in international practice, China will be in a passive position in the design of international rules, and its right to speak may also be weakened.

3.2 Increasing pressure on China's capital resources

The weakening of the funding mechanism in the Chair's Text (2025) will impose a heavier economic burden on China. Marine plastic pollution governance projects are usually long-term endeavors, involving the construction of waste recycling systems, the research and development of alternative products, and capacity-building, all of which require sustained and stable financial support (UNEP, 2021). For a long time, there has been a significant funding gap for supporting developing countries in environmental protection and addressing climate change. Due to insufficient funding from developed countries, the progress of environmental governance in many developing countries has been hindered (Abnett, 2022). Particularly after Trump took office for his second term, he terminated a number of funding programs in areas including environmental governance initiated during the Biden administration, leading to the suspension of many projects in developing countries (Daly, 2025; Kannampilly and Sullivan, 2025). Most of China's neighboring countries are developing countries. The main partners in China's "Blue Partnership" include ASEAN countries and Pacific island countries (Jianan, 2024). These countries are highly dependent on external funding for marine plastic governance. With the weakening of financial support from the global mechanism, China will face greater fiscal pressure.

As a typical international public good, marine plastic governance inherently suffers from the free-rider problem, requiring all countries to share costs and responsibilities. The weakening of the responsibilities of developed countries will further exacerbate the insufficient supply of public goods. Against this background, major powers tend to provide club goods to ensure the effectiveness of local governance, reduce cost burdens, and increase economic returns (Morin et al., 2024). This trend is particularly intensified by the introduction of the private sector into the funding mechanism framework. Most notably, the United States, relying on its economic strength, can leverage the private sector and non-governmental organizations to design exclusive standards. Through the formulation of exclusive standards in environmental governance, it can include members who are willing or capable of assuming responsibilities, which not only helps ensure the governance efficiency within the club but also brings institutional and economic returns. The strengthening of the

private sector's position in the funding mechanism framework further reflects the incentive logic of club-based governance: the private sector can impose standard constraints on participating members to improve governance quality, but this only benefits countries with strong capital and technological capabilities.

China implements the Common But Differentiated Responsibilities (CBDR) principle in marine plastic governance and broader climate and environmental issues. As a "responsible major country", China, based on its self-positioning and international responsibilities, often assumes more obligations and costs in global governance. However, the weakening of the responsibilities of developed countries means that they will undertake fewer obligations, forcing China to not only bear its originally planned responsibilities but also potentially fill the gap in external funding. Meanwhile, the strengthening of the private sector's role in the funding mechanism does not provide China with the same advantages. China's governance efforts are mostly led by the government, while the private sector's involvement is mostly based on policies and individual social responsibility initiatives, such as Alibaba's Green Logistics Program (Huanqiu, 2018). Unlike American enterprises, which can alleviate the government's financial pressure in international environmental governance and set industry standards and shape rules, Chinese private enterprises find it difficult to play a similar role.

When the supply of public goods is insufficient, regional major powers or institutional leaders often need to increase their investment to maintain the progress of governance and safeguard their own status. Especially in the case of cooperative projects involving developing countries, the reduction in external funding and technical support that China could originally rely on may force it to increase its own fiscal input to ensure the continuation of governance and the smooth implementation of projects. At the same time, it is important to note that China is still a developing country and does not possess the same resource conditions as developed countries. In this context, China may have to bear more fiscal responsibilities due to the weakening of the funding mechanism, which could exacerbate its domestic fiscal pressure. Therefore, China urgently needs to explore new funding mechanisms to alleviate the financial pressure in promoting regional governance.

3.3 Difficulties in the Implementation of China's concepts

The maritime community with a shared future is an important guiding ideology for China to promote ocean governance. It includes three-dimensional goals of interests, values, and responsibilities, which are highly relevant to the concepts of the global plastic treaty (Zhang, 2024). From the perspective of constructivism, ideas are the result of interactions among actors, and the maritime community with a shared future is precisely a valuable outcome derived from China's participation in international ocean governance. Meanwhile, ideas serve as the foundation for institutional construction. Only when ideas are embedded and internalized into institutions can they become

credible commitments and thereby gain institutionalized power (Zartner, 2010). This implies that for the maritime community with a shared future to truly take effect, it must be institutionalized.

The concept of the maritime community with a shared future advocates for the rule of law in the oceans and promotes fairness and justice in the international ocean order. Its construction process requires alignment with legal systems, and the establishment and improvement of relevant ocean laws serve as the legal guarantee for building the maritime community with a shared future (Xiuwu, 2021). Currently, the draft of the global plastic treaty shows a trend of weakened enforcement. Not only have the provisions on national responsibilities and obligations become more lenient, but the compliance supervision mechanism and dispute settlement mechanism have also seen a reduction in their binding force. This has left China without important guarantees for the institutionalization of the concept of the maritime community with a shared future.

From the perspective of public goods, the maritime community with a shared future also possesses the characteristics of non-rivalry and non-excludability, emphasizing openness and inclusiveness. In line with this concept, ocean cooperation should have no entry barriers, and there should be no unified rigid requirements for development and cooperation models, advocating for diversity. This means that if the binding force of relevant international treaties is insufficient and fails to compel countries to fulfill their responsibilities, it may lead to selective participation and free-rider behavior. In the absence of institutional guarantees, the fulfillment of responsibilities by various countries will be dominated by spontaneity, which will further exacerbate the fragmentation of current marine plastic pollution governance. Firstly, in the process of international cooperation between China and neighboring countries, commitments on key actions such as source control of production, plastic recycling, and cross-border waste management may remain at the level of soft law obligations, making it difficult to achieve effective governance outcomes. Secondly, selective participation and free-rider behavior may weaken the consensus under the marine plastic pollution governance framework and undermine the synergy effect. Thirdly, if the maritime community with a shared future fails to be implemented due to the lack of enforcement, it may weaken China's right to speak in the field of marine plastic pollution governance in the long run, putting China in a more passive position in the subsequent negotiations of the global plastic treaty. Additionally, China's plastic governance and capacity-building projects in ASEAN countries and Pacific island countries need to form long-term and stable cross-border cooperation under the guidance of this concept. However, the lack of support from the enforcement of international treaties will increase coordination costs and operational difficulties.

4 China's strategies for advancing global marine plastic pollution governance

The deletion and weakening of key provisions in the current Chair's Text (2025) not only reveal fundamental disagreements

among states on critical aspects of plastic pollution governance but also intensify uncertainties regarding the institutionalization of measures to address marine plastic pollution. These developments undermine the institutional foundation for international cooperation and present more immediate normative challenges to China's exercise of rights and fulfillment of obligations within the framework of international law. Although the INC-5.2 negotiations failed to achieve consensus on a final text, participating states expressed strong willingness to continue the process and agreed to resume consultations in subsequent meetings, thereby preserving momentum for the future progress of the plastics treaty (UNEP, 2025). To proactively respond to these challenges, China should adopt a dual-track strategy: on the one hand, it should maximize efforts to build international consensus and actively promote both the negotiation and implementation of a Global Plastics Treaty; on the other hand, prior to the treaty's formal entry into force, China should deepen bilateral and multilateral cooperation in relevant areas and take the lead in advancing marine plastic pollution governance, thereby mitigating delays in the governance process resulting from the protracted treaty negotiations.

4.1 Strengthening China's normative leadership through regional cooperation

The weakening of LCA and mandatory inventory systems in the Global Plastics Treaty has constrained China's regulatory leadership in addressing marine plastic pollution. In this context, regional cooperation has become an essential pathway for China to reinforce its normative leadership in global marine plastic pollution governance. The high convergence of national interests within regions and the lower coordination costs make it easier to establish binding governance mechanisms. Meanwhile, the proactive exploration of regional-level systems can accumulate practical experience. By creating a 'regional demonstration effect', it can promote the formation of an international consensus and the diffusion of rules, thereby facilitating the "bottom-up" advancement and improvement of global environmental governance "bottom-up" has already seen some success in the field of international environmental governance. For example, the EU's governance of hydrofluorocarbons (HFCs) influenced the adoption of the Kigali Amendment to the Montreal Protocol (European Commission, 2022). Based on the shared interests in addressing marine plastic pollution, China should prioritize regional cooperation with ASEAN countries. Leveraging existing institutional frameworks and geographical advantages, it should use the EPR systems as a starting point to advance whole-life-cycle plastic governance. This approach will integrate responsibilities across the industrial chain and accumulate replicable governance practices.

4.1.1 Deepening cooperation with ASEAN

Marine plastic pollution spans multiple sectors and stages, among which Extended Producer Responsibility (EPR) systems are particularly significant due to their capacity to intervene across the entire plastic lifecycle. The expansion of EPR systems

has now become a widespread trend (Tasaki and Matsumoto, 2023). Nevertheless, substantial divergences remain in how countries conceptualize and implement EPR, making the establishment of a globally unified standard difficult. As a result, challenges such as the absence of effective regulatory bodies, ambiguities in the scope of application, and limited implementation capacity—particularly in developing countries—persist (Zhou and Xu, 2025). The European Union, Japan, and other advanced economies advocate for stringent EPR systems (European Union, 2023d; Xu et al., 2023). By contrast, many developing countries face difficulties in meeting such higher standards owing to constraints in governance capacity.

China and ASEAN can use the EPR system as a foundation for regional cooperation. Beyond its intrinsic significance, the EPR system offers strong institutional linkages, facilitating the advancement of the circular economy and the coordination of support mechanisms. Both China and ASEAN have established corresponding EPR frameworks and demonstrate a shared commitment to strengthening the system. For instance, in China, the EPR framework already requires enterprises to take responsibility for the collection, recycling, and treatment of plastic waste (Wang, 2020). The 2021–2025 ASEAN Regional Action Plan for Combating Marine Debris in the ASEAN Member States is the establishment a regional platform for EPR knowledge support and implementation support (The ASEAN Secretariat, 2021). The existing institutional foundation for cooperation between the two sides includes the ASEAN–China Environmental Cooperation Strategy, which provides practical support for promoting the implementation of EPR systems and advancing joint governance. Building on this framework, it is essential to explicitly establish EPR as a mandatory obligation within regional governance, enabling ASEAN member states to implement it in a phased manner while adhering to the CBDR principle.

China can promote capacity building for EPR systems among ASEAN countries. China established its EPR system relatively early and has now developed a relatively comprehensive governance framework. ASEAN's EPR systems started later and lack uniformity and systematic coherence. China can participate in building regional platforms for EPR knowledge support and implementation assistance within ASEAN, thereby sharing its EPR experience and enhancing the institutional standards of ASEAN member states. China's EPR system possesses three key advantages: It establishes a comprehensive institutional framework by clarifying responsibilities across all stakeholders—from producers to consumers and government entities—through legislation such as the Cleaner Production Promotion Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes; It possesses extensive practical experience in industries such as electronics, automobiles, and logistics, with replicable operational models available for promotion; It integrates the EPR system with the circular economy, fostering the development of the circular economy and creating employment opportunities (Meng and Tingting, 2024). Furthermore, China and ASEAN countries can draw on experiences from multi-country river management initiatives to establish joint cross-border plastic regulatory mechanisms and conduct joint law enforcement activities.

To promote the establishment of a regional EPR system, it is first necessary to set standards. ASEAN countries are at different stages of development, and the establishment of uniform regional EPR standards requires both breadth and flexibility. In terms of breadth, it is necessary to take into full consideration the differences in industries between countries. EPR standards need to include key sources of pollution that are easily overlooked, such as fishing equipment and textiles (Zhou and Luo, 2024). In terms of flexibility, EPR standards need to be modularized. For countries with relatively developed manufacturing industries like Vietnam and Malaysia, these standards can be prioritized for inclusion in the full chain EPR responsibility standards. For less developed countries like Laos and Cambodia, it is advisable to begin by implementing EPR responsibility standards specifically for plastics used in consumer goods. At the same time, different timetables should be adopted for different countries in accordance with the provisions of the draft of the Global Plastics Treaty. In addition, certain incentive mechanisms should be established to enhance the binding force of the EPR system. Countries with stronger capabilities, such as China and Singapore, can take the lead in establishing fund mechanisms for regional platforms to support EPR knowledge and implementation, and provide support to less developed countries or regions in fulfilling their obligations. China and ASEAN can try to give policy incentives to enterprises that meet EPR standards to form incentives and enhance their willingness to participate.

4.1.2 Promoting regional cooperation experiences

The achievements of regional governance need to provide practical experience for governance at the global level. This will serve the ultimate goal of establishing a global, inclusive, and binding marine plastic pollution governance system. In the process of promoting international cooperation on plastic pollution governance, the regional cooperation mechanism established between China and ASEAN has a natural adaptability to cooperation among “Global South” countries. ASEAN countries, similar to other developing nations in the Global South, commonly confront challenges including limited industrial and technological capacities as well as constrained governance capabilities. Moreover, the China-ASEAN cooperation model can avoid many of the drawbacks of developed countries' compulsory transfer of institutional standards. More importantly, the China-ASEAN cooperation model does not come with political obligations or conditions attached. Therefore, this model is more likely to gain political and social support from Southern countries.

China can promote the China-ASEAN model to more regions through platforms such as the “Blue Partnership” and the Belt and Road Initiative, actively advancing the legislative process on marine plastic pollution and sharing governance experiences and successful policies. On this basis, China can also strengthen cooperation with neighboring countries, establish regional cooperation platforms such as the Belt and Road environmental cooperation platform, and carry out technical research, data monitoring, and joint governance actions (Zhang and Jiang, 2024). In addition to political and diplomatic measures, China can also promote regional cooperation experience through economic

means. China wields significant influence in various international economic organizations and regional cooperation mechanisms and possesses a powerful cooperation network. By leveraging this advantage, China can also actively participate in multilateral cooperation alliances, build on its existing plastics industry foundation, promote more applicable plastics industry standards, and encourage relevant industries in other countries to transition to a green economy and circular economy (Zhou and Xu, 2025). By extending China's experience in regional cooperation with ASEAN to the global stage, its approach can be scaled from regional initiatives to broader international governance. This strategy provides practical support for strengthening China's voice and normative leadership in global plastics governance, addressing challenges related to limited institutional influence and constrained negotiating power in the Global Plastics Treaty. Furthermore, this model enhances the capacity of developing countries to engage in global governance, offering a viable empirical foundation for the treaty's signing and implementation, and facilitating a bottom-up pathway from regional experimentation to the establishment of global norms.

4.2 Innovative financing mechanisms and multilateral cooperation strategies

Divergences over financing mechanisms in the Global Plastics Treaty negotiations have weakened both the willingness and capacity of states to comply (Barrett, 2005; Ostrom et al., 2012). Developed countries often attempt to dilute their responsibilities through institutional design, reflecting insufficient compliance willingness, while developing countries, constrained by limited financial resources, face weak compliance capacity and remain in urgent need of external support. As the largest developing country and a major player in the global plastics industry, China occupies a unique position, offering both the space and opportunity to bridge the divide between developed and developing states and to promote more balanced institutional arrangements. China can assume a leading role by reaffirming and operationalizing the CBDR principle, with emphasis on two key dimensions: first, coordinating the interests of developed and developing countries to enhance overall compliance willingness; and second, advancing reforms in financing mechanisms to strengthen the compliance capacity of developing countries.

4.2.1 Coordination of financing mechanisms between developed and developing countries

Significant divergences in interests and capacities exist among different groups of countries in marine plastic governance, most notably in the area of financing mechanisms, and are primarily reflected in tensions between developed and developing states. Developed countries often seek to reduce their compliance burdens and demonstrate limited willingness to adopt high-standard regimes or assume strict responsibilities. In contrast, developing countries, constrained by limited financial and technological resources, struggle to independently undertake relevant obligations, even when they exhibit strong governance

intentions. The CBD principle provides a legal framework to reconcile the conflict between economic development and environmental protection (Sands et al., 2018). As both the largest developing country and a major participant in the global plastics industry, China occupies a distinctive position in mediating competing interests and alleviating institutional frictions (Hongyuan, 2023). As both the largest developing country and a major participant in the global plastics industry, China occupies a distinctive position in mediating competing interests and alleviating institutional frictions.

Compared with the Global Plastics Treaty — a mechanism with broad coverage — smaller, more specific projects tend to be more operationally feasible. Participants can observe the outcomes and returns on their investments more clearly and in a timelier manner, while the likelihood of free-riding is reduced, thereby increasing the willingness to bear associated costs (Ostrom et al., 2012). At present, China could take the initiative to propose the establishment of a regional special fund for marine plastic governance in its neighboring areas. This would serve two purposes: on the one hand, environmental treaties often face a trade-off between breadth and depth, and the development of the Global Plastics Treaty is no exception (Barrett, 2005). Therefore, in the field of marine plastic pollution governance, advocating for smaller-scale mechanisms can create opportunities to explore the composition and pathways for the formation of financing mechanisms. This is particularly relevant given that the Chair's Text (2025) does not clearly specify the relationships or proportions among the components of the financing mechanism, nor does it clarify the specific obligations of the private sector. Accordingly, in the design of concrete mechanisms, reference could be made to the Montreal Multilateral Fund by defining clear funding scopes, implementing stringent technical standards and monitoring systems, and enhancing financial transparency (Multilateral Fund for the Implementation of the Montreal Protocol, 2025). Building on the CBD principle, China could further promote relevant experiences from the Kunming–Montreal Global Biodiversity Framework by setting specific tasks and timelines for parties, and by establishing robust reporting and review processes. This approach would simultaneously address developed countries' demands for strengthened enforcement and developing countries' needs for commitments in areas such as financial support. Such measures would help improve the compliance capacity of developing countries, elevate the overall level of global governance, facilitate the exploration of financing mechanisms acceptable to both developed and developing countries, and strengthen confidence in international cooperation in situations where treaty negotiations.

While advocating for the establishment of specific mechanisms, China should also promptly set up multilateral dialogue platforms to counterbalance the influence of “club”-style arrangements initiated by some developed countries. China could work in concert with groups of developing countries, such as the G77, the African Union (AU) and ASEAN, to speak with a united voice and ensure that key concepts such as “environmental justice,” “the right to development,” and “capacity building” are not weakened in the treaty text. This would help prevent Global South countries from

being placed in a disadvantaged position in governance discourse and marginalized by high-standard rules. Such platforms should also place emphasis on civil society engagement and pay particular attention to vulnerable groups, fully considering the participation of local indigenous peoples and communities in marine plastic pollution governance (Aleke Stöfen and Graham, 2024). Although multilateral dialogue platforms cannot replace the function of financing mechanisms, they can play a vital role in amplifying the voice of Global South countries and facilitating coordinated actions, thereby helping to offset, to some extent, the tendency toward the “club-based” model of governance by developed countries (Zürn, 2018).

4.2.2 Multifaceted financial mobilization and application: insights from China

The Organization for Economic Co-operation and Development (OECD) report Policy Scenarios for Eliminating Plastic Pollution by 2040 highlights a significant global financing gap in plastic waste management, with developing countries bearing the heaviest burdens. China places particular emphasis on green cooperation with developing countries and has continuously strengthened its environmental diplomacy under the framework of South–South cooperation (Zhu et al., 2024). Neighboring partner countries involved in China's marine plastic pollution governance generally face severe financial constraints; relying solely on government funding is insufficient to meet domestic governance needs and cannot support broad international cooperation. Therefore, China must explore and mobilize diversified sources of financing, which represents a critical pathway to addressing the funding shortfall and further advancing marine plastic pollution governance.

China can leverage existing international and regional multilateral mechanisms to expand funding sources for marine plastic governance, relying on established cooperative networks to rapidly mobilize financial and technical resources and thereby alleviate domestic funding pressures. In addition to further tapping the potential of mechanisms such as the Global Environment Facility and the Asian Infrastructure Investment Bank, China should pay particular attention to the BRICS framework. First, the BRICS countries cover a wide range, with large populations and economies, and possess significant influence in the field of marine plastic pollution. Second, there is a high degree of overlap between China and other BRICS countries in terms of marine plastic governance priorities, making this platform directly useful for strengthening financing mechanisms and relieving China's financial burdens. Third, the BRICS countries comprise various types of developing countries and emerging economies, and their financing mechanisms can serve as broad demonstration models for Global South countries.

At present, the BRICS countries have already reached a certain level of consensus in the field of plastic pollution governance. For example, the 11th BRICS Environment Working Group included plastic pollution and waste management on its agenda in the 11th BRICS Environment Ministers' Meeting Joint Statement (Souto, 2025). During the same meeting, Iran proposed the establishment

of a BRICS Green Innovation and Plastic Waste Management Fund to strengthen regional financial cooperation ([Tehran Times, 2025](#)). Internally, the BRICS countries have established economic cooperation mechanisms such as the New Development Bank, providing an institutional foundation for deepening financing mechanisms for marine plastic pollution governance. To further harness the potential of BRICS, China could promote the creation of dedicated green funds or financing windows specifically supporting marine plastic governance projects. This would strengthen cross-border coordination and joint application mechanisms to ensure active participation of all member states, while leveraging the characteristics of BRICS as emerging economies to stimulate private sector engagement. Such measures would expand both the funding sources and the implementation capacity of governance projects.

It should be noted that the recent expansion of BRICS has increased both the coverage and representativeness of the framework, but it has also introduced additional complexity, as there are divergent interests among member countries, including oil-producing nations and those severely affected by plastic pollution. When promoting cooperation in marine plastic governance, financing mechanisms should be treated as a distinct agenda item, with a primary focus on issues such as resource mobilization and allocation, while avoiding entanglement with other mechanisms that may trigger conflicts of interest, such as LCA frameworks. By advancing financing mechanisms independently, it is possible to ensure the willingness and efficiency of all parties in financial cooperation, while minimizing the disruption of internal disagreements on broader governance issues.

4.3 Advancing marine plastic governance through soft power

The concept of a “Maritime Community with a Shared Future” provides a normative orientation for China’s engagement in global ocean governance; however, its effectiveness depends on institutionalization. The weakened enforceability provisions in the draft Global Plastics Treaty leave this concept without essential legal and institutional safeguards, creating significant challenges for its implementation. In the absence of institutional support, such concepts risk becoming hollow value statements, vulnerable to the pressures of fragmented international governance and free-riding. As a major initiative proposed by China in international ocean governance, the concept of a maritime community with a shared future functions fundamentally as a form of soft power. Drawing on Joseph Nye’s framework, a nation’s soft power is derived from its culture, values, and policy influence ([Nye, 2005](#)). From this perspective, the normative impact of the “Maritime Community with a Shared Future” depends on domestic governance practices, international promotion, and institutionalized outcomes to effectively shape global marine plastic governance. At the conceptual level, its authority and influence can be strengthened through improved domestic governance and multi-channel

international advocacy. At the institutional level, China should focus on providing scientific standards and replicable policies, transforming the concept from a declarative value into actionable frameworks. Such frameworks would guide both domestic and international governance, mitigate the “pollution haven” phenomenon, and enhance the binding force of a Global Plastics Treaty, thereby improving the overall effectiveness of ocean governance.

4.3.1 Enhance the authority and influence of the Maritime community with a shared future for the oceans

Joseph Nye notes that one source of a nation’s soft power is the legitimacy and effectiveness of its political institutions ([Nye, 2005](#)). In the field of marine plastic pollution management, China’s domestic governance capacity and institutional advancements enhance the credibility of its principles, forming a foundational basis for its soft power. Nevertheless, China’s domestic plastic pollution management still requires further refinement. For example, the newly revised Marine Environmental Protection Law of the People’s Republic of China exhibits notable gaps in alignment with the principles of the Global Plastics Treaty, particularly in areas such as EPR framework, cross-departmental institutional coordination, and enforcement implementation ([Chang and Saqib, 2025](#)). When institutional enforcement is weak, principles risk remaining hollow declarations, eroding trust in international cooperation. By contrast, robust domestic governance enables China to demonstrate credible commitments, thereby enhancing other nations’ willingness to participate in collaborative efforts.

At the same time, soft power also stems from a nation’s culture and values, emphasizing the influence of attraction on the behavior of other countries. At the official level, China has repeatedly proposed the concept of a maritime community with a shared future within the frameworks of bilateral cooperation and the Belt and Road Initiative ([Ministry of Foreign Affairs, PRC, 2023](#), [Ministry of Foreign Affairs, PRC, 2024](#)). However, it is equally essential to further promote these concepts within broader international contexts and multilateral forums. In this process, it is essential to further strengthen the promotion of the values of “interdependence, synergy, and mutual benefit” within the framework of the Maritime Community with a Shared Future ([Ye, 2025](#)). In the context of marine plastic pollution, “interdependence” underscores the interconnected destinies of nations, fostering awareness of shared responsibility for transboundary plastic pollution and encouraging countries to voluntarily assume governance obligations. “Synergy” emphasizes multilateral cooperation and institutional coordination, helping to address challenges related to limited enforceability and fragmented governance in the draft convention. “Mutual benefit” highlights the advantages of experience sharing, technical assistance, and the promotion of scientific standards, thereby enhancing both willingness and confidence among all parties to participate in cooperative governance.

Civil society channels play a crucial role in the international dissemination of the concept of a Maritime Community with a Shared Future, particularly in the realms of science and technology

as well as economic and trade cooperation. Governments can encourage influential actors—such as scholars, researchers, and entrepreneurs—to actively participate in international exchanges, thereby extending the concept into broader societal and policy domains. Enhanced engagement in civil society networks and semi-official international forums can amplify its impact, while hosting additional international academic conferences provides further opportunities for dialogue and collaboration. Collectively, these efforts will foster deeper global understanding and recognition of the Maritime Community with a Shared Future (Xu, 2024).

Through both governmental and non-governmental channels, China is not only promoting its concepts at the policy and governance levels but also enhancing its appeal in terms of culture and values. This multi-channel approach helps to build international consensus, providing a foundation for the development of institutional frameworks and the enforceability of conventions, thereby facilitating an organic integration of concepts, policies, and institutions.

4.3.2 Provide institutional products to translate concepts into actionable rules.

Soft power also depends on the legitimacy and moral authority of a country's foreign policy. Accordingly, China must advance the concept of a Maritime Community with a Shared Future by offering tangible institutional frameworks to the international community. Addressing marine plastic pollution is a protracted and complex process that requires sustained and systematic investment. Establishing standards serves to clarify key sources and critical stages of pollution, as well as the severity of contamination from different types of plastic products. Standards also provide reference points and guidance for domestic legislation and governance across countries. For developing nations, scientifically grounded standards can reduce the costs of domestic lawmaking while enhancing governance effectiveness. Moreover, rule-making at the international level can foster coordinated global action against marine plastic pollution. Developing unified, science-based standards helps prevent the emergence of “pollution havens” in global environmental governance. While standard-setting inevitably involves political and economic considerations, reliance on scientific criteria can mitigate national disagreements, returning the process to technical judgments guided by the public interest. As pivotal conventions addressing marine plastic pollution, the Stockholm Convention and the Basel Convention have established environmental standards for persistent pollutants and hazardous waste, respectively, embodying the principles of scientific standardization and tiered management. Facing similar transboundary and systemic risks, the proposed Global Plastics Treaty should draw upon the experiences of these conventions, incorporating their best practices into its treaty text.

China should ensure the practicality and credibility of its scientific standards throughout the development process. In particular, the LCA principle enhances both the comprehensiveness of scientific standards and the precision of governance, as demonstrated by the European Union's implementation of the EU Plastics Strategy (European Commission, 2025). Under a unified foundational standards framework, the CBDR allow developing

countries to set phased targets based on their own capacities, balancing equity with the right to development. Ensuring the credibility of scientific standards requires maximizing their “depoliticization.” To this end, China should promote the active participation of scientific communities and the establishment of independent institutions. The expertise of scientific communities enhances the effectiveness and rigor of standards, while independent institutional evaluations help mitigate biases in implementation, preventing a small number of countries from instrumentalizing standards for their own advantage.

At the level of implementing scientific standards, China can advance efforts through three main approaches. First, it can promote the establishment of a standards implementation mechanism. Drawing on the platform model of the Stockholm Convention, China could develop a dedicated standards coordination body under the framework of the Global Plastics Treaty to assess and review countries' pollution status and governance capacity (Secretariat of the Stockholm Convention, 2024). Second, China can facilitate the creation of an information-sharing platform. By learning from the experiences of the Stockholm Convention and the global environmental chemicals monitoring network, and leveraging technologies such as big data, it can enhance monitoring and information exchange (Li, 2023). Third, China can promote a multi-stakeholder governance model, encouraging participation from enterprises and civil society organizations in plastic governance. This approach would involve establishing obligations for information disclosure, plastic footprint certification, and policy incentives, while also supporting developing countries in strengthening their capacity to implement standards through experience sharing and technical assistance (Zhan and Jianpeng, 2020).

5 Conclusion

This paper focuses on developments following the INC-5.2 meeting, analyzing divergences among nations regarding marine plastic pollution governance as reflected in the Chair's Text (2025). It identifies trends toward deletion and weakening in key provisions concerning the treaty's scope of regulation, funding mechanisms, and legal binding force. These changes not only undermine the effectiveness of global governance mechanisms but also pose challenges to China's ability to exercise rights, fulfill obligations, and lead in shaping international norms.

Research indicates that strengthening marine plastic pollution governance relies not only on the eventual conclusion of a global plastics treaty but also on synergies between “bottom-up” regional practices and “top-down” rule design. In this process, China is accumulating replicable governance experiences by deepening cooperation with ASEAN and other regional partners to advance Extended Producer Responsibility (EPR) systems and whole-life-cycle plastic management; It enhances developing countries' compliance capacity through innovative multilateral funding mechanisms and resource mobilization via platforms like BRICS. Furthermore, by integrating the concept of a ‘Maritime community

with a shared future' with soft power promotion, technology sharing, and capacity building, China fosters international consensus on governance rules. In this process, the concept of a 'Maritime community with a shared future,' integrated with technology sharing, capacity building, and the establishment of equitable rules, will serve as a vital bridge connecting national interests with global public interests. This approach will ultimately drive synergistic benefits for environmental protection and development, offering Chinese wisdom and Chinese solutions for transforming the global environmental governance system.

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

SH: Writing – review & editing, Supervision, Funding acquisition, Project administration. XH: Conceptualization, Methodology, Writing – original draft.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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