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Building Global Momentum Towards Managing Marine Plastic Pollution Through SDG 14

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Abstract

Target 1 of SDG 14 on marine pollution has been instrumental in building momentum towards a coordinated response to the plastic pollution crisis facing the world's ocean. The 2017 UN Ocean Conference saw a record number of registered voluntary commitments related to stemming plastic pollution, from local grassroots action to scientific research, as well as government initiatives limiting single-use plastics. By the time of the second UN Ocean Conference in June 2022, the UN Environment Assembly had, in March 2022, already adopted a resolution to develop by 2025 an international legally binding agreement to end plastic pollution. This international instrument is currently under negotiation and is facing contentious discussions influenced by petroleum interests. However, the very existence of these negotiations is owed to a large degree to the grassroots momentum built through SDG 14 Target 1 and a growing public concern about linkages between plastic pollution and human health and nascent national blue economies. This article will trace the pathway through which SDG 14 voluntary commitments, from local to global, have led by example while building a global sense of urgency to address the plastic pollution crisis. The article will also provide examples of how local communities and governments have experienced and responded to the crisis. Lessons learned from these local examples will be provided to link local measures and priorities to the global level in a way that can inform how the plastic pollution treaty is both negotiated and implemented.

Keywords

plastic pollution; Small Island Developing States; SDG 14; UN Ocean Conference

1. Introduction

SDG 14 has been instrumental in building momentum towards addressing plastic pollution in the marine environment. In 2015, when Agenda 2030 and the associated SDGs were adopted, the plastic pollution crisis had permeated global consciousness. With plastic consumption increasing each year, up to 12.7 million tonnes of plastic pollution has been estimated to enter the ocean annually (Jambeck et al., 2015) and is predicted to reach 300 million tonnes by 2030 (Geyer et al., 2017). In 2016, a report stated that, according to the best estimates, the ocean is expected to contain "by 2050, more plastics than fish (by weight)" (World Economic Forum, 2016, p. 7). This graphic quote was used ubiquitously in speeches held by politicians and advocates at various international events, including by the secretary-general of the UN in a speech in 2018 (UN, 2018).

The following years have brought a better, although by no means complete, understanding of the problem, including that no part of the ocean is left untouched. Even the deepest trenches were found to have a considerable accumulation of plastics (Chiba et al., 2018). Plastic pollution and microplastics were also found in soil, water, and air, potentially endangering human health (Amato-Lourenço et al., 2021). Severe impacts on marine biodiversity were documented, along with negative consequences to blue economy sectors such as tourism, shipping, and fishing (Barboza et al., 2018; Löhr et al., 2017). The majority of plastic pollution was found to originate from land-based sources, although fishing gear also played a major role in some areas (Burt et al., 2020). With plastic pollution crossing jurisdictions, national efforts alone are not enough, and international cooperation is required to address the problem (Tessnow-von Wysocki & Le Billon, 2019).

The Covid-19 pandemic caused yet another increase in plastic pollution and demonstrated how dependent humanity is on plastic. In particular, the waste produced by the health and food and beverage sectors was striking (Silva et al., 2021). With environmental measures put on hold while Covid-19 was dealt with, the ocean received a great portion of the plastic waste generated to maintain human well-being.

It was against the backdrop of increasing attention to plastic pollution in the ocean that Agenda 2030 was adopted in September 2015. Amongst the associated SDGs was SDG 14 on "life below water," which made history by bringing ocean issues into the sustainable development realm. Its adoption was only made possible through a collective diplomatic campaign by the Small Island Developing States (SIDS), whose lives, livelihoods, and cultures are dependent on the ocean and its health (Quirk & Hanich, 2016). The predecessor of the SDGs, the Millennium Development Goals, only had one goal on environmental sustainability (no. 7), which did not single out the ocean. Moreover, the Millennium Development Goals were targeted only at developing countries, a mistake that was corrected with the SDGs, now encompassing the whole world. The universality of the SDGs, as well as their comprehensive nature in encompassing 17 goals relating to environmental, economic, and social aspects of sustainable development, made them an appropriate framework for tackling complex cross-sectoral, multistakeholder, and global-scale problems such as plastic pollution.

SDG 14 has been recognized as the most interconnected of the goals, with its achievement linked to all other SDGs (Singh et al., 2018). Despite this, it has been the least prioritized goal by many governments, particularly those in the Global South that tend to invest more in SDGs with direct social implications, such as the goals on education, poverty, and hunger (Custer et al., 2018). However, with the ocean increasingly linked to economic development through national blue economy ambitions, improved ocean governance is becoming more of

a global priority (Lee et al., 2020). With close linkages to SDG 12 (sustainable consumption and production), among others, the implementation of SDG 14 could take into account upstream and downstream connections, which was particularly vital for addressing plastic pollution. The 2017 UN Ocean Conference, attended by a broad set of stakeholders, provided a timely venue for this discussion.

This article demonstrates how the 2017 UN Ocean Conference, including the voluntary commitments that were its major outcomes, was crucial in building momentum to address the interconnected issue of plastic pollution in the ocean. While causality is difficult to demonstrate, it is likely that this momentum eventually led to the ongoing negotiations for an international legally binding instrument on plastic pollution. Section 2 provides an overview of the content of the voluntary commitments. Section 3 examines grassroots actions in more detail, including some lessons learned. Section 4 discusses how these developments led towards the negotiation of the plastic pollution treaty. Overall, the article aims to show that more informal soft law instruments, such as SDG 14, along with public opinion, can be instrumental in bringing together diverse stakeholders and testing new ideas towards the development of a legally binding agreement.

2. The 2017 UN Ocean Conference Voluntary Commitments on Plastic Pollution

With SDG 14 adopted, there was a desire by certain countries to accelerate its implementation. The first UN Ocean Conference, held in June 2017 and co-hosted by Fiji and Sweden, aimed to kickstart implementation and draw attention to solutions that would help reverse the decline in ocean health. It also sought to:

> Involve all relevant stakeholders, bringing together Governments, the United Nations system, other intergovernmental organizations, international financial institutions, non-governmental organizations, civil society organizations, academic institutions the scientific community, the private sector, philanthropic organizations and other actors to assess challenges and opportunities relating to, as well as actions taken towards, the implementation of Goal 14. (United Nations General Assembly, 2016, p. 2)

One of the main outputs of the 2017 UN Ocean Conference, aimed specifically at fostering inclusive engagement, was the voluntary commitments. Any commitment to furthering SDG 14, along with the framework of the Agenda 2030, could be registered. The commitments could be new initiatives or build on and expand existing initiatives. They should include means of implementation (such as finance or capacity building) to ensure their long-term sustainability and be designed under the SMART criteria. Any stakeholder could register a commitment, and by the time the 2017 UN Ocean Conference had ended, over 1,400 voluntary commitments had been registered in the secretariat's database (Vierros & Buonomo, 2017).

Target 1 of SDG 14, which is to "prevent and significantly reduce," by 2025, "marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution" (United Nations General Assembly, 2015, pp. 23–35), attracted the second highest number of commitments (after SDG 14 Target 2 on management and protection of marine ecosystems), totalling 14% of all the commitments registered across all ten SDG 14 targets (Vierros & Buonomo, 2017). While SDG 14 Target 1 relates to marine pollution in a general sense, most of the voluntary commitments addressed plastic pollution in the ocean. The commitments were made by local community organizations, NGOs, governments, the private sector, scientists, and others. While uncoordinated, they represented a growing sense of urgency about addressing the issue.

An analysis of 170 voluntary commitments related to marine plastics made during, or directly after, the 2017 UN Ocean Conference, demonstrated this trend. The data for this component of the analysis was downloaded from the Secretariat's registry (UN, n.d.), and used to discern the entities involved in making plastic pollution-related commitments, as well as the breadth of these commitments.

Most of the entities making commitments were governments, followed closely by NGOs. These entity types were responsible for most of the commitments, although the private sector, partnerships, civil society, the UN, academia, the scientific community, IGOs, and others also submitted commitments (Figure 1).

The types of actions included in the commitments were diverse, addressing public awareness, along with various downstream and midstream activities directed at reducing plastic pollution, as demonstrated in Figure 2.

By far the biggest category of actions was that of public awareness, education, and communication. Many of these actions were undertaken by NGOs, but other entities also participated. The commitments included activities such as public awareness campaigns and materials, advocacy for addressing plastic pollution, youth initiatives, pledges to reduce plastic pollution, workshops, events, and contests. The large number of these commitments demonstrates that building public awareness and education about the impacts of plastic pollution in the marine environment was a key aim of the commitment-holders.

The second largest category was plastic waste management, which included a large number of actions, such as: improving the management of plastic waste; addressing sources of plastic waste; improving recycling and circular economy; repurposing plastic waste into, for example, textiles; reducing intentional microplastics at the source; reducing discarded fishing gear; reducing product packaging; phasing out virgin plastics; utilizing end of life plastics; putting in place port reception facilities; and undertaking measures to reduce consumption.

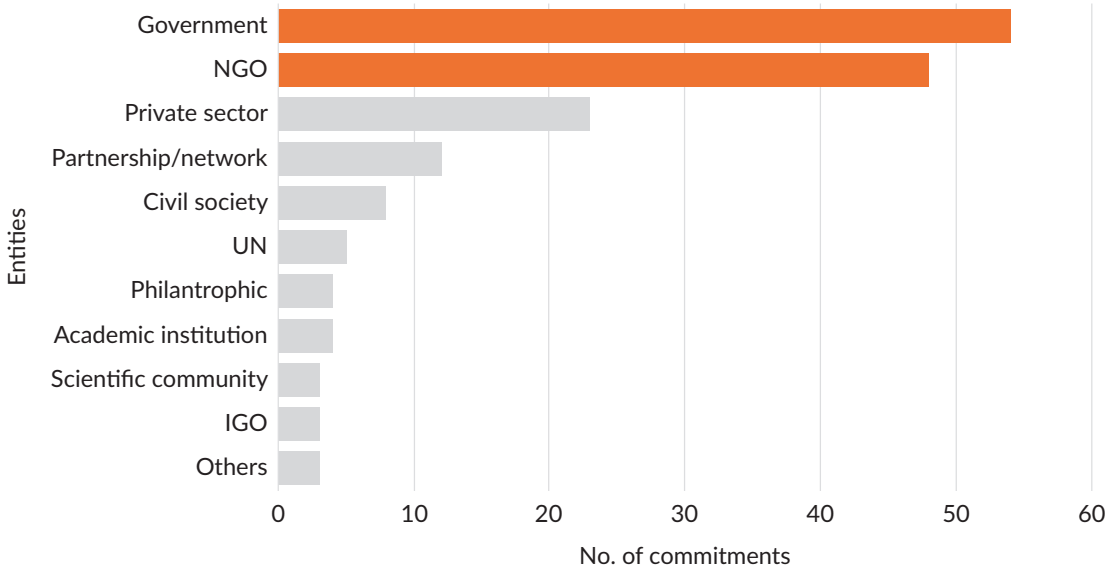

Figure 1. Number of commitments made by different entities. Notes: Governments and NGOs made the largest number of commitments; this figure is based on the data from the UN Registry of Voluntary Commitments (n.d.).

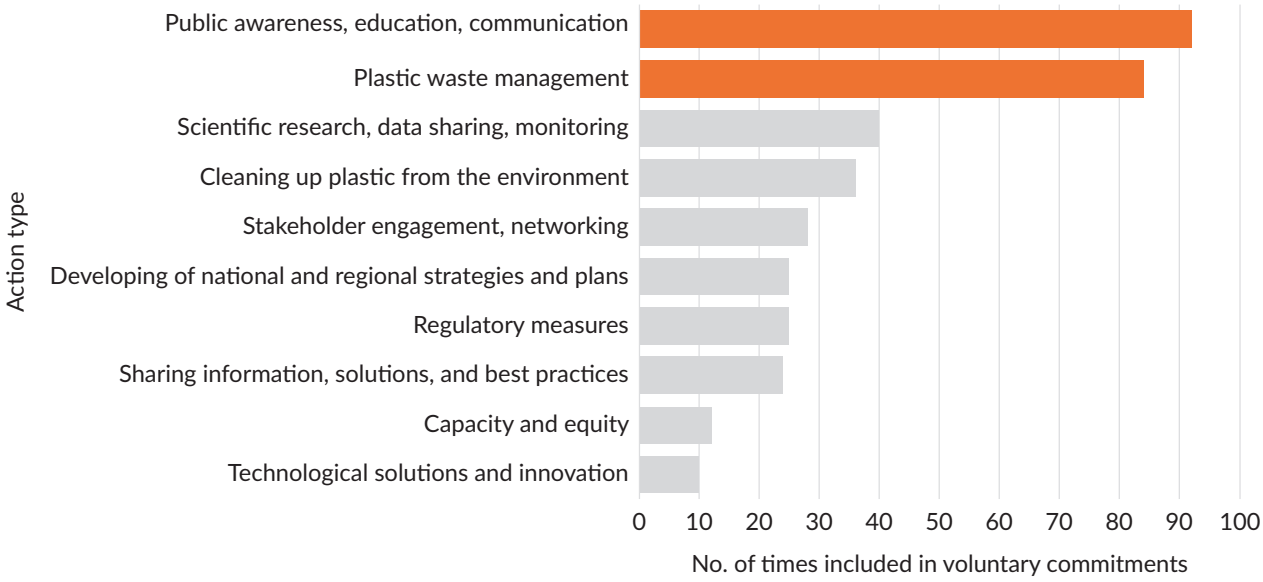

Figure 2. Types of actions included in voluntary commitments by category. Notes: Actions related to public awareness, education, and communication, as well as to plastic waste management, were the most common; this figure is based on the data from the UN Registry of Voluntary Commitments (n.d.).

The third largest category was that of scientific research, data sharing, and monitoring. This category included commitments by academia and the scientific community, but also NGOs, governments, and partnerships. Many of these commitments focused on the assessment and monitoring of plastics, including microplastics, in the marine environment, as well as their impacts on marine animals and human health. The category also included citizen science initiatives, such as documenting the amount of plastic collected from beaches, often undertaken in conjunction with beach cleanup events. In fact, beach cleanups and efforts to clean up plastics at sea (either by divers or automated systems on ships) were the fourth largest category of action.

The fifth most common category was related to stakeholder engagement and networking, including national and international cooperation amongst diverse actors. Several partnerships to address plastic pollution were proposed. Relatedly, actions on sharing information, solutions, and best practices (the eighth largest category) reflected a desire to learn from others undertaking similar work, and to start piecing together more global solutions.

The sixth most common category of commitments related to the development of national strategies and action plans on addressing plastic pollution in the marine environment, with some regional intergovernmental organizations also registering commitments towards regional strategies. The development of regulatory measures was the seventh most common category and included actions such as bans on certain types of single-use plastics and intentional microplastics (e.g., microbeads in cosmetics). These were generally government-registered commitments. While some governments stopped short of outright bans, they still registered efforts to significantly reduce single-use plastics, including through consultations.

Building capacity for improved plastic waste management in developing countries, both human and institutional capacity, received a few commitments and some monetary pledges. As an equity measure,

three commitments focused on community livelihoods and equity such as payment for the collection of plastic litter.

Finally, several private sector entities made commitments that focused on research, development, and innovation towards technological solutions for removing plastics from the marine environment, or for removing microplastics from wastewater.

These voluntary commitments indicate the breadth of actions contemplated in 2017, prior to the UN Environment Assembly (UNEA) resolution that led to the negotiations of a new treaty on plastic pollution. Many of these same, or similar, categories of actions are now under negotiation for incorporation in the draft treaty text (see Section 4). The voluntary commitments thus provide the experience an international treaty to address plastic pollution can build upon, both in negotiation and in eventually moving towards implementation.

The voluntary commitments were largely led by governments and NGOs. However, the inclusivity of the voluntary commitments provided a mechanism that empowered different stakeholders to participate and commit to reducing plastic pollution. The voluntary commitments provided a sense that everyone could do something to help solve the problem, and with the combined NGOs and civil society commitments (a number that was larger than the government commitments), the influence of grassroots action was evident. The relatively high number of private sector commitments was also notable, and included repurposing plastic litter into textiles and shoes; replacing plastic bottles with reusable bottles in hotels; and research, development, and innovation for cleaning up plastics. It is likely that the private sector felt more able to provide tangible solutions to plastic pollution than to other SDG 14 targets, such as those related to marine conservation and management.

While most voluntary commitment-holders have not reported on their progress over time (Gjerde & Vierros, 2021), those who have provided updates often claim considerable achievements. For example, in December 2017, six months after the first UN Ocean Conference, UN Environment announced that the Clean Seas Programme, a partnership aimed at raising awareness of plastic pollution and marine litter, and one of the first registered voluntary commitments, had generated thousands of pledges from individuals and NGOs to reduce pollution. Additionally, 40 governments had submitted pledges, and many were moving towards reducing or banning certain types of single-use plastics (UN, 2017). By 2023, the programme website indicated that 69 countries had joined the campaign, representing 76% of the world's coastline (Clean Seas, n.d.). This initiative has recently transitioned to continue under the umbrella of UNEP's Global Partnership on Plastic Pollution and Marine Litter, which has over 630 member organizations, and established communities of practice, regional nodes, and a digital platform for knowledge sharing and collaboration (Global Partnership on Marine Litter, n.d.).

The positioning of the plastic pollution problem within the SDGs also highlighted a growing understanding that plastic pollution in the marine environment was not purely an environmental problem that could be solved in the realm of SDG 14, or even SDGs 14 and 15 collectively. Instead, addressing it would require intersectoral cooperation, nationally and internationally, including between those implementing other SDGs. A 2017 analysis demonstrates that the SDG 14 voluntary commitments are particularly closely linked with climate action (SDG 13) and sustainable consumption and production (SDG 12; Vierros & Buonomo, 2017).

Addressing plastic pollution will additionally require consideration of SDG 3 on "good health and well-being," SDG 8 on "decent work and economic growth," and SDG 10 on "reduced inequalities." On the national level, nascent blue economies are one vehicle through which countries implement SDG 14 (World Economic Forum & Friends of Ocean Action, 2022), and where intersectoral cooperation can help address the plastic pollution issue. Many blue economy sectors, such as tourism and fisheries, depend on healthy ocean environments and may suffer economic losses from plastic pollution on beaches and the marine environment. Internationally, the plastic pollution treaty negotiations (see Section 4) may benefit from considering the SDGs framework in connecting upstream, midstream, and downstream actions, from production to equity.

3. Linking Local Action to Global Policy

While global commitments such as the SDGs provide an impetus for managing plastic pollution, they could not be implemented without local and national initiatives (Löhr et al., 2017). Due to global differences in the origin of plastic pollution, solutions are only effective in local contexts and under local conditions. As highlighted in Section 2, grassroots action is an important component of SDG 14 voluntary commitments, and in building momentum towards addressing plastic pollution on a global scale. The examples described in this section offer lessons about the diversity of local initiatives, stakeholders, and results, as well as the impacts of plastic pollution locally and nationally. They provide solutions and lessons that might be considered in a global context as a plastic pollution treaty is being negotiated.

Several initiatives highlight the creative ways in which local projects involve local volunteers, including youth, through a combination of education, beach cleanups, monitoring, data analysis, and advocacy for better policies. For example, several local initiatives have been undertaken in the Brazilian context. The Ecosurf project, created in 2000, and located on the north coast of São Paulo, Brazil, empowers surfers and volunteers to monitor and research pollution on beaches and undertake beach cleanups. This project was responsible for removing more than 40 tons of trash on Brazilian beaches. While local, the project also makes linkages to the implementation of several SDGs in a cross-cutting way, including SDGs 3, 6, 11, 12, 13, 14, and 17 (Ecosurf, n.d.).

The Mares sem Plástico (in English: seas without plastic) project was created in 2019 by a professor from the Federal University of Paraíba, Brazil to fight marine litter through educational activities. The project is composed of teachers, collaborators, and students, and aligns environmental education and monitoring with better regional management of marine litter. Environmental activities are undertaken with students from public schools in João Pessoa, Paraíba, corresponding with the themes taught throughout the year. Monitoring activities occur in almost 13 km of the coast. Additionally, the project sells products that contribute to the reduction of single-use plastics, such as eco bags (Queiroga, 2023).

Also in Brazil, the Blue Keepers initiative is a network of companies and stakeholders aiming to mobilise resources to combat ocean pollution. Placed under the UN Global Compact umbrella, Blue Keepers projects aim to collect and analyse data on plastic pollution on the coast of Brazil, particularly in high-risk areas for plastic waste, and use these results to develop local strategies and actions (Pacto Global Rede Brasil, n.d.).

In Fiji, the Pacific Ocean Litter Youth Project is a group of youths seeking to collect, through beach cleanups, and categorise marine litter, especially plastic pollution. The group uses science and art to catalyse behavioural

change for consumers and producers, with the aim of informing policy. Of note is their use of art and "artivism" to engage youth and raise awareness (Kumar, 2023).

Ocean cleanup efforts, while local, can have a large cumulative impact. For example, in 2020, a total of 23 UN Ocean Conference voluntary commitments reported the weight of litter they had removed from beaches since 2017, which collectively added up to a total of 2,100 tonnes. These local efforts also contributed to awareness raising, education, and citizen science, and served as an entry point for the general public, including youth, to engage with ocean issues (Vierros, 2021).

Cleaning up transboundary marine litter from beaches can be extremely costly for low-income countries and SIDS. For example, a beach clean-up effort on the remote Aldabra Atoll, a UNESCO World Heritage site, in Seychelles removed 25 tonnes of marine litter at a total cost of $224,537, or approximately $8,900 for each ton of litter. The amount of litter removed, mostly fishing gear and flip flops, was only a fraction of the total estimated 538 tonnes that was present on the Atoll's beaches at that time, with harmful impacts on a variety of marine life at this otherwise pristine location (Burt et al., 2020).

SIDS are particularly vulnerable because they often lack adequate facilities for disposing of or recycling the plastic items that flood their beaches (Burt et al., 2020) as well as their plastic waste (Samson, 2023). Dirty beaches, in turn, impact tourism and fisheries, and place cleanup costs on coastal communities, while bringing additional risks from flooding, toxins, and hazardous chemicals (Dauvergne, 2023; Mittempergher et al., 2022; Samson, 2023). The International Union for Conservation of Nature estimated that the economic impact of plastic pollution on tourism and fisheries sectors in Antigua and Barbuda, Grenada, and Saint Lucia in 2019 was considerable. For example, the losses for Antigua and Barbuda's fisheries sector were estimated at $1,428,980 or 9.2% of revenue, and the beach cleanup costs that would allow for the tourism sector to operate were estimated between $4,762.590 and $13,936.860, or between 88.4% and 258.6% of the 2019 waste management budget (Mittempergher et al., 2022). The reports concluded that plastic pollution has serious economic impacts in reducing national GDPs by up to an estimated $7 billion globally in 2017.

Local recycling solutions are being implemented on some islands. For example, Waste Recyclers (Fiji) Pte Limited, a locally-led organization, has been providing sustainable recycling services in Fiji for almost 30 years. Their aim is to reduce the number of recyclables being burnt, buried, or dumped in landfills. Most of their recycled products are plastic, and their work contains a social equity element that utilizes a network of informal waste pickers, village-based communities, and marginalized groups, providing them with economic opportunities that allow them to support their households. The organization also works with resorts and hotels to provide recycling services (Fiji Hotel and Tourism Association, 2021), as well as with the Pacific Ocean Litter Youth Project, the Fiji youth project described in this section, to collect recyclables (Kumar, 2023).

Despite some local solutions, the costs of cleaning up the plastic tide are considerable, and the examples from the Caribbean and Seychelles highlight the need for international funding for countries, particularly low-income countries that can ill afford such amounts, and are at the downstream of the global flow of marine plastic litter. Equity considerations in the global costs of plastic pollution are one reason for the formation of a coalition of downstream underdeveloped countries in the negotiations for the plastic pollution treaty (see Section 4).

National action plans on plastics or marine litter can be powerful tools for aligning actions across sectors and levels of government, as well as responding to national, regional, and global commitments, such as SDG 14. The development of such action plans was a commonly registered voluntary commitment at the 2017 UN Ocean Conference. Experiences from the development of the Belize Marine Litter Action Plan highlighted several lessons, including the importance of (a) stakeholder mapping and inclusive engagement; (b) communication that is consistent, dynamic, and sustained; (c) science in addressing data gaps and creating an objective common ground; and (d) enablers and champions across sectors (Monsanto et al., 2023). These lessons are transferable to other countries and may also be useful in the context of international treaty negotiations.

4. Towards a Global Treaty

While national and regional actions, such as the UN Ocean Conference's voluntary commitments, are an important step towards addressing plastic pollution in the ocean, they are a response that is too fragmented for a problem that is global in scale. The international plastic economy includes value chains that pass through multiple jurisdictions of countries, entering the shared waters of the ocean as plastic becomes pollution. A global problem requires a coordinated global-scale solution by multiple stakeholders, including a circular economy addressing the full life cycle of plastics (March et al., 2022). The UN Ocean Conference's voluntary commitments were so-called midstream and downstream measures relating to waste management, recycling, and cleanup. For a comprehensive approach, the production and distribution of plastics will also need to be considered.

There has not previously been an international treaty addressing plastic pollution—or land-based sources of marine pollution for that matter—in a comprehensive sense (Borrelle et al., 2017). The United Nations Convention on the Law of the Sea defines marine pollution in Part 1, Article 1. Part XII, Sections 4 and 5, incorporate international rules to prevent, reduce, and control pollution of the marine environment, providing a legal framework for the issue. However, the law was adopted before plastic pollution reached a crisis level, and is not specific enough to comprehensively address a problem that incorporates the land and sea, as well as production, trade, use, and disposal. Many regional seas treaties have protocols that address land-based sources of marine pollution, but they do not have global coverage. The London Convention and Protocol address the dumping of waste from ships, but the majority of plastic pollution, with the exception of fishing gear, originates from land-based sources. The adoption of SDG 14 (and particularly Target 1) and the 2017 UN Ocean conference provided a global venue for discussing the problem, and the timing of this discussion corresponded with a growing sense of urgency about the impacts of marine plastic pollution, mostly coming from public opinion.

The momentum generated by the June 2017 UN Ocean Conference was reflected at UNEA, and in December 2017, the third session of UNEA established an ad hoc open-ended expert group on marine litter and microplastics (UNEP, 2018). In May 2022, based on the report of the ad hoc open-ended expert group, the fifth session of UNEA adopted resolution 5/14 entitled "End Plastic Pollution: Towards an International Legally Binding Instrument." The instrument:

> Could include both binding and voluntary approaches, based on a comprehensive approach that addresses the full life cycle of plastic, taking into account, among other things, the principles of the

> Rio Declaration on Environment and Development, as well as national circumstances and capabilities. (UNEP, 2022, pp. 3–4)

Along with an ambition to complete the work by 2024, the paragraph puts forward a broad scope for the instrument, one which continues to be debated in the ongoing International Negotiating Committee (INC) negotiations.

The second UN Ocean Conference in June/July 2022 welcomed UNEA resolution 5/14 in the political declaration of the conference (UN, 2022a) and its final report (UN, 2022b). The development was hailed as one of the bright spots in the implementation of SDG 14, which was otherwise behind schedule. While plastic pollution was still a major focus at the second UN Ocean Conference, there was also an anticipation of the INC meetings to come.

The INC meetings have, thus far, only made slow progress, with the ambition of finalizing the international legally binding instrument by the end of 2024 looking increasingly uncertain. There are differences in opinion about the scope of the instrument, particularly whether the instrument should focus on the entire lifecycle of plastics including design, production, manufacturing, logistics, use, reuse, and end-of-life management as indicated in UNEA resolution 5/14 (UNEP, 2022), or whether it should mainly address midstream and downstream approaches such as waste management. The latter position has been advocated by petroleum-producing countries, such as the Gulf Cooperation Council, and the petrochemical industry. As a result, much of the discussion has focused on the chemistry of polymers and the impact on industry rather than on environmental concerns.

Also still under negotiation is the ambition of the international instrument, and whether its provisions will be voluntary, as in the Paris Agreement, or legally binding. Different coalitions have emerged from the negotiations: The High Ambition Coalition arguing for a strong legally binding treaty addressing the entire plastics lifecycle; the Gulf Cooperation Council, along with the partially overlapping "group of like-minded countries" arguing mainly for voluntary measures that would not impact production and would focus largely on mid- and downstream measures (Dreyer et al., 2024, p. 4); and, at the third INC, the "coalition of downstream, underdeveloped countries"—a group of countries whose development and national resources are being impacted by their geographic location which requires them to use national resources to address unwanted plastic pollution from across jurisdictions. This last coalition emphasizes the importance of equity and finance in an international instrument where downstream countries bear a disproportionate burden from plastic pollution.

The nature of the debate, and the stakeholders involved in it, has shifted from the discussions at the 2017 UN Ocean Conference and its voluntary commitments. This is due not only to the passage of time, but also to the differing natures of SDG 14 as a non-binding soft law instrument, and the plastic pollution INCs aimed at developing a legally binding hard law instrument. The initial progress at the UN Ocean Conference was driven by NGOs, civil society, and early adopter governments. The plastic pollution INCs also include governments whose economic development is closely tied to the production of plastics, and numerous industry lobbyists (Center for International Environmental Law, 2023). The NGOs and civil society groups are numerous at the INCs but participate as observers. Thus, there has been a shift in how and by whom the topic is addressed.

Despite these challenges, the momentum to address plastic pollution has also spilled over to processes related to trade and hazardous waste, broadening its reach beyond only the environmental realm. For example, in 2019, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was amended to include some plastics as hazardous wastes. Additionally, in 2020, the WTO launched an Informal Dialogue on Plastic Pollution and Sustainable Plastics Trade, bringing the issue into trade policy.

The scientific basis for addressing plastic pollution will also be strengthened by the UN Decade of Ocean Science for Sustainable Development (2021–2030, commonly referred to as the Ocean Decade), which was launched in 2021. The first of the 10 Ocean Decade challenges is to "understand and beat marine pollution" (Ocean Decade Network, n.d.). It is envisioned as an effort to understand and map pollutants and contaminants from land and sea to better understand their impacts, and develop solutions, potentially providing a global-scale scientific effort and an objective baseline.

5. Conclusion

The UN Ocean Conference and its voluntary commitments demonstrated how a soft law process, such as SDG 14, can build momentum towards the development of a legally binding treaty. The inclusivity of the conference provided space for grassroots and community-level actors along with high-level government participants. Furthermore, the conference provided a venue for discussing ocean issues holistically in an otherwise fragmented ocean governance landscape. The positioning of SDG 14 amongst other SDGs allowed the consideration of synergies and trade-offs within sustainable development sectors, for example, between ocean health, tourism, fisheries, and the sustainable production and consumption of plastics. These factors, and the timing of the conference coinciding with growing public awareness of the plastic pollution crisis, likely contributed to the move towards more coordinated and binding solutions. While the plastic pollution treaty negotiations evolve, consisting of forward momentum and backward slides, it is likely that a treaty will emerge over time. It is hoped that the treaty will provide global coordination towards a circular plastic economy, although its provisions and degree of implementation are still unknown at this stage. Future UN Ocean Conferences may similarly succeed in becoming a forum for new ideas and solutions.

SIDS, which championed the creation of SDG 14, have collectively become strong advocates for ocean health, as demonstrated during subsequent ocean-related negotiations, such as the new treaty on biodiversity beyond national jurisdiction, where the Pacific SIDS and the Caribbean Community took leading roles. SIDS are also advocating for a strong treaty for addressing marine pollution, and, as downstream recipients of unwanted plastic pollution, for support and technologies for low-income countries to deal with costly cleanups. Linking conservation with equity measures has emerged as an important recent trend in international environmental negotiations, including those focused on the ocean, climate change, and biodiversity.

For the plastic pollution treaty to be successful, it not only needs to set global limits to the production of new plastics while providing for a circular economy, but it will also need to build upon and learn lessons from local actions, such as those described in Section 3 of this article. How plastic pollution is addressed nationally and locally will always be context-specific. Sources of pollution and the problems caused may vary by location, as will the appropriate response measures to address them. Creative grassroots actions will remain a key component of responding to the crisis and will have the larger benefit of connecting people to their ocean environment in new ways.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

The data used in this study is publicly available through the online registry of voluntary commitments from the UN Ocean Conference at https://sdgs.un.org/partnerships/action-networks/ocean-commitments

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