

# Exploring the Option of a New Global Agreement on Marine Plastic Pollution

A Guide to the Issues





**ISBN:** 978-82-7701200-1

**Authors:**

Torbjørn Graff Hugo  
Magnus Løvold  
Runa Lindebjerg  
Thomas Maes

**Reviewers:**

Ingeborg Mork-Knutsen  
Miles Macmillian-Lawler  
Ieva Rucevska  
Clever Mafuta  
Gro Nystuen  
Kjølve Egeland

**Suggested citation:**

GRID-Arendal (2021) Exploring the option of a new global agreement on marine plastic pollution – a guide to the issues (GRID-Arendal Policy Brief).  
Retrieved from <https://www.grida.no/publications/539>

**Prepared with funding from:**



Norwegian Ministry  
of Climate and Environment

**Cover photo:**

© Strategic Agenda/Kieran Colvin

**For questions, please contact**

[runa.lindebjerg@grida.no](mailto:runa.lindebjerg@grida.no)



# Abstract

There is a growing body of evidence showing the devastating impact of marine plastic pollution. Over the past couple of years, an increasing number of States have signalled that a new global agreement might be needed to effectively address the problem. At the time of writing, no formal mandate for negotiations has been adopted, yet States and other actors have been considering the merits and possible scope and parameters of a new global agreement. Discussions are taking place in various forums and at various levels. The purpose of this report is to contribute to these discussions by providing an overview of relevant events, policy gaps, resources, and frameworks, and to present options and questions that States and other stakeholders can draw on in their efforts to explore what a new treaty on marine plastic pollution could look like.



# Contents

<b>Abstract</b>	<b>3</b>
<b>List of figures</b>	<b>6</b>
<b>List of abbreviations</b>	<b>7</b>
<b>Foreword</b>	<b>8</b>
<b>Executive summary</b>	<b>10</b>
<b>1. Introduction</b>	<b>12</b>
Objective	13
Structure	13
<b>2. The story so far</b>	<b>16</b>
2.1 The UNEA process	17
2.2 Growing calls for a new global agreement	21
<b>3. What is a global agreement?</b>	<b>24</b>
3.1 Basic terms and clarifications	24
Designations	25
Binding force	25
Purpose, structure, and treaty elements	27
3.2 Typical challenges in designing effective agreements	28
Articulating a convincing rationale for a treaty	28
Identifying the most effective regulatory interventions	29
Incentivizing participation and compliance	30
<b>4. A new global agreement on marine plastic pollution?</b>	<b>32</b>
4.1 Formulating a shared understanding of the issue	33
Identifying the transboundary properties	33
4.2 Articulating obligations, commitments, and authorizations	34
Disaggregating the problem and identifying priority categories	36



Regulating outcomes instead of acts	36
Dealing with uncertainty	37
<b>4.3 Establishing institutional structures and other collective arrangements</b>	<b>39</b>
Generating confidence in compliance	41
Managing asymmetries and capacity restraints	41
Securing a critical mass of support	42
<b>4.4 Key considerations for policymakers</b>	<b>43</b>
<b>5. Conclusion</b>	<b>44</b>





# List of figures

<b>Figure 1:</b>	Overview of existing frameworks and legal instruments	<b>19</b>
<b>Figure 2:</b>	Timeline of UNEA activities related to marine plastics: resolutions, reports, and AHEG meetings	<b>20</b>
<b>Figure 3:</b>	Selected conventions – the time it takes	<b>27</b>
<b>Figure 4:</b>	International instruments and their application to marine plastic litter	<b>40</b>





# List of abbreviations

<b>AHEG</b>	Ad hoc open-ended expert group on marine litter and microplastics
<b>CBD</b>	Convention on Biological Diversity
<b>CITES</b>	Convention on International Trade in Endangered Species of Wild Fauna and Flora
<b>CLRTAP</b>	Convention on Long-Range Transboundary Air Pollution
<b>COP</b>	Conference of the Parties
<b>EU</b>	European Union
<b>GEF</b>	Global Environment Facility
<b>GPA</b>	Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>UN</b>	United Nations
<b>UNCLOS</b>	United Nations Convention on the Law of the Sea
<b>UNEA</b>	United Nations Environment Assembly
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VCPOL</b>	Vienna Convention for the Protection of the Ozone Layer

# Foreword

We live on a blue sphere; 71 per cent of our planet is covered by ocean. It is the least explored habitat, but it is home to the greatest diversity of life on Earth. Oceans are central in our lives and unite the planet. More than 80 per cent of all goods are shipped around the world. Healthy oceans provide food, jobs, and economic growth, and support the well-being of coastal and urban communities. One in 10 livelihoods depends on fisheries globally. Oceans regulate the climate; the largest carbon sink on the planet can be found in our oceans. Healthy oceans form a central pillar of the Sustainable Development Goals (SDGs), and a prerequisite for the

achievement of the entire 2030 Agenda for Sustainable Development. Yet our oceans are in peril and on the brink of collapse. Fish stocks are depleted beyond biological sustainability. In the last decades, millions of tonnes of plastic have entered the oceans and spread from the furthest poles to the deepest trenches. With increasing ocean acidification, rising temperatures, heightened sea levels, continuous

**With increasing ocean acidification, rising temperatures, heightened sea levels, continuous pollution, and growing biodiversity loss, it's obvious that our oceans are under significant stress, eroding the natural capital upon which future growth and generations depend.**

pollution, and growing biodiversity loss, it is obvious that our oceans are under significant stress, eroding the natural capital upon which future growth and generations depend.

**In 2020, we witnessed tragedy, hardship, unprecedented challenges, and devastating loss.** The COVID-19 pandemic continues to exact a heavy toll on many countries, constantly forcing us all to reorient our resources and priorities. The pandemic also reminds us of how fundamentally interdependent our international system is. While States each have a responsibility to protect their citizens from harm, the pandemic shows that no State can adequately address problems of an inherently transboundary character alone. In an interconnected world, no State is an island. Global, transboundary problems require multilateral solutions.

**Marine plastic pollution is another inherently transboundary problem.** Plastic is a material with exceptional qualities, but those qualities, including its durability, also make it a highly persistent pollutant. Every year, millions of tonnes of plastic end up in the ocean, causing serious and long-term environmental, social, and economic harm, ultimately affecting all of us.

**In recent years, public attention to the plastic pollution problem has grown rapidly.** In parallel, discussions among States on how the international community should respond have intensified, including in the form of multiple United Nations Environment Assembly (UNEA) resolutions and expert group discussions.

**A key conclusion from the multilateral discussions so far has been that a continuation of business as usual is not an option.** The existing legal and regulatory framework has proven inadequate. Something has to be done. Over the past couple of years, a growing number of stakeholders, including a long list of States, have signalled that one possible path forward that merits consideration is the development of a new global agreement specifically dedicated to addressing the problem of plastic pollution. Many have explicitly called for such a treaty to be negotiated.

**In exploring the option of a new global agreement on marine plastic pollution, a long list of questions will have to be examined.**

What should be the overarching objective of any new agreement? Would it aim to tackle all plastic pollution, or only the transboundary aspects of the problem? Would it impose harmonized international standards and technical requirements, or would it rely primarily on country-specific strategies and local solutions? Would it only focus on prevention, or would clean-up be

part of the scope? And perhaps most importantly, how can we ensure that the agreement, once concluded, is faithfully implemented?

This report is a timely contribution to the ongoing discussions about what a new global agreement on marine plastic pollution could and should address. It provides context and background, but also points to some of the typical challenges involved in the design of international agreements and presents some of the lessons learned from other international environmental issues. It offers food for thought for anyone involved in the ongoing discussions on how the international community should respond to the issue of marine litter and microplastics, but it has relevance well beyond the specific issue of plastic pollution as well, and even outside the environmental nexus.

The report is also an apt reminder of the urgency of this issue. The longer we wait, the more plastic will continue to leak into and degrade our natural environment. We are all part of this problem, and we must work together to find a common solution.



**Peter Harris**  
Managing Director

**GRID-Arendal**



# Executive summary

- Marine plastic pollution is an issue with a long history, but recognition of the need for a dedicated international response to the problem has grown over the past few years. A multitude of initiatives, partnerships, and platforms have been introduced, but the amount of plastic that is discharged into the ocean every year is still increasing. The existing legal landscape is fragmented, and support has recently been growing for the consideration of a *new global agreement* dedicated to addressing the issue of marine plastic pollution.
- Global agreements come in all shapes and forms, from political declarations with broad thematic scope to narrowly framed legally binding protocols. Regardless of their legal status, one of the key challenges in the design of new global agreements is to incentivize participation and compliance, including by ensuring that the provisions of the agreement can be monitored and verified.



- The process of exploring the option of a new global agreement on marine plastic pollution could be guided by asking three basic questions: (1) how should the issue of main concern be formulated and understood?; (2) how should the goals, principles, and rules aimed at tackling that issue be articulated?; and (3) what kind of supporting provisions, including in the form of institutional structures, would be required in order to catalyse the effective implementation of the agreement?
- The four UNEA resolutions adopted on the issue since 2014 have framed the problem as one pertaining to plastic in the marine environment, and this could be seen as the default option going forward. Some Member States, however, have indicated that the thematic scope of the new agreement might be expanded to include all plastic pollution, not just the marine type. In considering this option, and in the deliberations about how the issue should be framed, it would be useful to keep in mind that, traditionally, the purpose of international law has been to regulate transboundary issues.
- The elaboration of a new global agreement on marine plastic pollution can be understood as an attempt to solve a *collective action problem*, and this typically involves a number of challenges related to coordination and cooperation. This begins with the articulation of a convincing rationale for why a new agreement is needed, focusing on the transboundary properties of the issue of concern. Other typical challenges include the identification of the most effective and appropriate regulatory interventions and the design of mechanisms and treaty provisions that promote participation and compliance.
- When exploring possible elements and provisions of a new global agreement, States can draw inspiration from a long list of existing international agreements that in various ways – and with varying degree of success – have aimed to tackle issues of transboundary concern. In doing so, it might be particularly relevant to examine how the core provisions of other agreements have been articulated; how uncertainty and ability to adapt to changing circumstances have been dealt with; how confidence in compliance has been secured; how asymmetries have been taken into consideration; and how critical mass of support has been secured.





# 1.

## Introduction

Marine plastic pollution is an urgent problem of growing international concern. Each year, millions of tonnes of plastic are discharged into the marine environment, posing a significant threat to life in the ocean and, indirectly, to all those who depend on it. While it is not known exactly how much plastic there is in the world's oceans, it has been estimated that several million tonnes of plastic leak into the marine environment every year,<sup>1</sup> and more than 5 trillion pieces of plastic, weighing more than 250,000 tonnes, are floating around on the surface alone.<sup>2</sup> Unless effective measures are taken, the problem of marine plastic pollution is likely to grow. In a “business-as-usual” scenario it has been suggested that by the year 2050, the world's oceans may contain nearly 1 billion tonnes of plastic.<sup>3</sup>

Over the past 40 years, an increasing number of States and other actors have come to see marine plastic pollution as a global problem in need of a collective response. Because plastic pollution crosses national borders, and even areas beyond national jurisdictions, an

- <sup>1</sup> See for instance Jenna R. Jambeck, Roland Geyer, Chris Wilcox, Theodore R. Siegler, Miriam Perryman, Anthony Andrady, Ramani Narayan, and Kara Lavender Law (2015), “Plastic waste inputs from land into the ocean”, *Science* 347, 2015, pp. 768–771; Laurent Lebreton and Anthony Andrady (2019), “Future scenarios of global plastic waste generation and disposal”, *Palgrave Communications*; Winnie W. Y. Lau et al. (2020), “Evaluating scenarios toward zero plastic pollution”, *Science*, 18 Sep 2020: Vol. 369, Issue 6510, pp. 1455-1461; Stephanie B. Borrelle et al. (2020), “Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution”, *Science*, 18 Sep 2020: Vol. 369, Issue 6510, pp. 1515-1518.
- <sup>2</sup> Marcus Eriksen, Laurent Lebreton, Henry Carson, Martin Thiel, Charles Moore, Jose Borerro, Francois Galgani, Peter Ryan, and Julia Reisser (2014), “Plastic pollution in the world's oceans: More than 5 trillion plastic pieces weighing over 250,000 tons afloat at sea”, *PLoS ONE* 9(12), e111913.
- <sup>3</sup> World Economic Forum (2017), “The New Plastics Economy: Rethinking the future of plastics”, in collaboration with the Ellen MacArthur Foundation.



effective solution to the problem of marine plastic pollution requires multilateral cooperation.

There are already many multilateral agreements in place that seek to address the environmental impact of human activities on the marine environment (see Figure 4). However, none of these specifically and comprehensively addresses marine plastic pollution. In 2017, a UNEP study concluded, *inter alia*, that the existing international legal landscape pertaining to the issue of marine plastic pollution is “fragmented and uneven”.<sup>4</sup> This is particularly true for land-based sources of marine plastic pollution.<sup>5</sup>

Marine litter, including plastic litter, has been on the international agenda for decades.<sup>6</sup> But it wasn’t until 2014, at the very first session of the United Nations Environment Assembly (UNEA), that States decided to frame *plastic* in the marine environment as a distinct international environmental problem. Since then, in response to a growing body of evidence showing the harmful effects of marine plastic pollution, discussions among States and other actors as to how to tackle this problem most effectively have intensified. Building upon the outcomes of a series of expert meetings on marine litter and microplastics, more than half of the United Nations membership has, as of 2020, expressed an interest in exploring the option of a new global agreement on marine plastic pollution (see Section 2.2).

## Objective

This report is produced in response to the increasing number of States that have expressed an interest in exploring the option of a new global agreement on marine plastic pollution. The

purpose of the report is not to outline a specific proposal for a new treaty, but rather to serve as a guide to the issues, providing States and other relevant stakeholders with an overview of events, resources, and frameworks that could be of relevance to the ongoing discussions about a potential new global agreement. Drawing inspiration from a range of existing multilateral environmental agreements, the report also points to some of the typical challenges involved in the design of new international treaties, notably in terms of securing participation and promoting compliance.

## Structure

The next section (Section 2) reviews the background and context of the proposal for a new global agreement to address marine plastic pollution. It traces the concern with plastic as a marine pollutant back to the 1992 Earth Summit’s Agenda 21 and shows how a framing of marine plastic pollution as a distinct environmental problem has emerged through a series of multilateral initiatives, notably under the auspices of UNEP. The section concludes by pointing to the growing support for a new global agreement on marine plastic pollution to be explored.

The subsequent section (Section 3) introduces some of the main features of multilateral agreements, including how they pertain to thematic scope, membership, binding force, overall function, and structure, as well as preambular and operative content. It reviews some of the key challenges in the design and development of multilateral agreements and outlines some possible strategies for how to overcome these challenges.

<sup>4</sup> UNEP (2017), “Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches”, United Nations official document UNEP/EA.3/INF/5, p. 74.

<sup>5</sup> Discharge of plastic from sea-based sources is regulated, to a large extent, by MARPOL and the London Convention (and Protocol) on dumping, though fishing-related plastic pollution, which is a large part of the problem, is not specifically dealt with by these conventions. For a comprehensive discussion of the existing legal landscape pertaining to marine plastic pollution, see UNEP/EA.3/INF/5.

<sup>6</sup> See Chapter 17 of Agenda 21, as contained in United Nations official document A/CONF.151/26/Rev.I (Vol. I), Resolution I, Annex II. Agenda 21 was subsequently endorsed by the General Assembly in resolution 47/190 of 22 December 1992.

The final section (Section 4) outlines options for how States can begin to explore some of the basic elements of a new global agreement on marine plastic pollution. Drawing lessons from other environmental agreements, the section also provides some examples of how the design of specific agreement provisions could be approached.









# 2.

## The story so far

The problem of marine plastic pollution is as old as the material itself. Since large-scale production and use of plastic began in the 1950s, it has been estimated that as much as 8.3 billion metric tonnes of virgin plastic has been produced,<sup>7</sup> and over the years a substantial amount of that plastic has ended up in the world's oceans.<sup>8</sup> Reports of marine wildlife affected by plastic pollution also go back more than half a century.<sup>9</sup>

The first international conference on the impact of marine debris was held in 1984.<sup>10</sup> Eight years later, Agenda 21, adopted at the Earth Summit in 1992, recognized “plastics” as a particular threat to the marine environment and noted that, at the time, there was no “global scheme” in place to address land-based sources of marine pollution.<sup>11</sup> The following year, the Governing Council of the United Nations Environment Programme (UNEP) decided to

<sup>7</sup> Roland Geyer, Jenna Jambeck, and Kara Lavender Law (2017), “Production, use, and fate of all plastics ever made”, *Science Advances*, 19 Jul 2017: Vol. 3, no. 7. Available at <https://advances.sciencemag.org/content/3/7/e1700782>.

<sup>8</sup> Jambeck et al. (2015), “Plastic waste inputs from land into the ocean”.

<sup>9</sup> See Peter Ryan (2015), “A Brief History of Marine Litter Research”, in Bergmann, Gutow, and Klages (eds) *Marine Anthropogenic Litter*, Springer, Cham. Available at [https://link.springer.com/chapter/10.1007/978-3-319-16510-3\\_1](https://link.springer.com/chapter/10.1007/978-3-319-16510-3_1).

<sup>10</sup> For an overview of the history of the International Marine Debris Conferences, see <https://5imdc.wordpress.com/about/history/>.

<sup>11</sup> Agenda 21, paras. 17.18 and 17.26.

organize an intergovernmental conference,<sup>12</sup> to be held in Washington in 1995, which led to the adoption of the Washington Declaration and the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA).<sup>13</sup>

The GPA provided an opportunity for States to coordinate action and harmonize policies on the issue of marine litter and microplastics (though with a focus on land-based activities). There was, however, limited attention to global governance structures and institutional arrangements,<sup>14</sup> and in practice, the GPA does not appear to have had a significant impact on the ability of the international community to respond effectively to the problem.

In the period from 1995 to 2010, the total annual production of plastic in the world more than doubled, rising from 156 to 313 million tonnes.<sup>15</sup> Most studies indicate that the levels of plastic in the marine environment grew considerably over that same period.<sup>16</sup> Despite the GPA and other efforts by the international community, the amount of plastic leaking into the ocean has steadily increased.<sup>17</sup>

## 2.1 The UNEA process

At the very first session of UNEA in 2014, Member States adopted a resolution entitled “Marine plastic debris and microplastics”.<sup>18</sup> Despite the long history of marine plastic pollution, this was the first time the highest decision-making body of UNEP had passed a resolution specifically addressing the issue of marine litter (or debris).<sup>19</sup>

The resolution requested the Executive Director of UNEP to conduct a study on marine plastic pollution. The study, which was submitted to UNEA-2 in 2016, sought to “provide a background on marine plastic debris, including a definition of what it is, why it occurs, in what way it is a global problem, and what measures can be taken to reduce its impact.” The report recommended, *inter alia*, to “review existing regulatory frameworks, institutional arrangements and other instruments related to marine litter and their enforcement to identify synergies and gaps as well as potential solutions to address gaps globally and regionally”.<sup>20</sup>

<sup>12</sup> See UNEP Governing Council decision 17/20, as contained in United Nations official document A/48/25. Note that at the same session in 1993, the Governing Council also adopted a Programme for the Development and Periodic Review of Environmental Law, which, under the section on marine pollution from land-based sources, included as an activity the examination of “the need for and advisability of developing global rules and standards with or without a treaty” (A/48/25, Annex).

<sup>13</sup> See United Nations official document A/51/116, pp. 23–24. Plastic is not listed as one of the eight source categories under the GPA, but was mentioned both under Sewage (A) and Litter (H). At the Third IGR in Manila in 2012, litter was identified as one of three priority areas of the GPA (see for instance Governing Council decision 27/3, as contained in UNEP/GC.27/17).

<sup>14</sup> Since 1995, only four intergovernmental review meetings have been organized. For a review of the first 20 years of the GPA, see United Nations official document UNEP/GPA/IGR.4/INF/3. See also UNEP/EA.4/INF/14.

<sup>15</sup> Geyer, Jambeck, and Law (2017). See table S1, in supplementary materials.

<sup>16</sup> See for instance Inger Lise Nerland, Claudia Halsband, Ian Allan, and Kevin Thomas (2014), “Microplastics in marine environments: Occurrence, distribution and effects”, Norwegian Institute for Water Research, Report SNO. 6754-2014, Section 2.5. Available at <https://www.miljodirektoratet.no/globalassets/publikasjoner/M319/M319.pdf>. Not all studies point in the same direction. See for instance Beer et al. (2017), “No increase in marine microplastic concentration over the last three decades – A case study from the Baltic Sea”, *Science of the Total Environment*, Volume 621, 15 April 2018, pp. 1272-1279.

<sup>17</sup> There is little data available on leakage rates of plastic into the marine environment, and even less on how these have developed over time. Concentration levels in the marine environment (including beach litter and ingestion by birds and fish) have so far been easier to measure.

<sup>18</sup> United Nations official document UNEP/EA.1/Res.6. The draft resolution was submitted by Norway.

<sup>19</sup> The broader issue of protection of the marine environment from various sources of pollution had been on the agenda of UNEP since the first meeting of the Governing Council in 1973 (see United Nations official document A/9025), but the issue of marine litter (or marine debris) had not been the subject of specific resolutions or decisions.

<sup>20</sup> UNEP (2016), “Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change”, United Nations Environment Programme, Nairobi.



© GRID-Arendal/Rob Barnes

Building upon the findings of this report, UNEA-2 adopted a second resolution on the issue. The resolution linked efforts to combat marine plastic pollution to the Sustainable Development Goals (SDGs)<sup>21</sup> and asked UNEP to “undertake an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches to combat marine plastic litter and microplastics”.<sup>22</sup> The assessment report, which was presented to UNEA-3 in 2017, concluded *inter alia* that “the existing global and regional legal landscape for addressing marine plastic litter and microplastics is fragmented and uneven” and presented three legal and policy options for the international community going forward:

- **Option 1: Maintain the status quo**, which would “aim to continue and encourage existing efforts under current instruments

by Member States, secretariats, institutions and other stakeholders for both land- and sea-based sources”.

- **Option 2: Revise and strengthen existing frameworks**, which “could include adopting new instruments specific to marine plastic litter and microplastics under existing conventions and amending existing frameworks and approaches with measures specific to the prevention, mitigation and removal of marine plastic and microplastics”.
- **Option 3: Adopt a new global architecture with a multilayered governance approach**, which would combine “urgent and voluntary measures as outlined in option 2” with the development of a “global binding architecture”.<sup>23</sup>

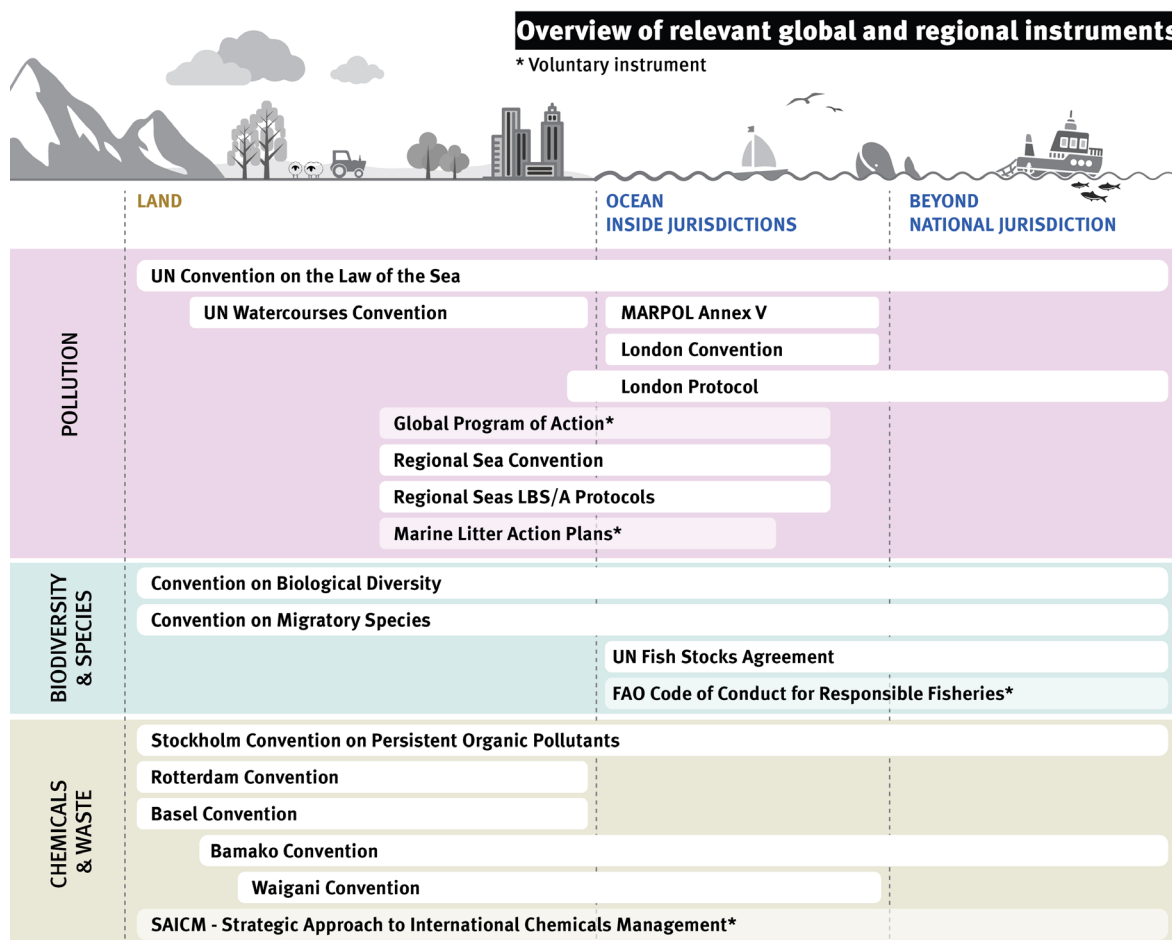
<sup>21</sup> Target 14.1 reads as follows: “By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution”.

<sup>22</sup> United Nations official document UNEP/EA.2/Res.11 (Marine plastic litter and microplastics, 2016), para. 21.

<sup>23</sup> UNEP (2017).



Figure 1: Overview of existing frameworks and legal instruments



Graphic by Levi Westerveld / GRID-Arendal (2020). Adapted from UNEP (2017).

To further explore barriers to combating marine litter and microplastics, and to consider the costs, benefits, feasibility, and effectiveness of possible response options, UNEA-3 established an ad hoc open-ended expert group (AHEG).<sup>24</sup> The AHEG, which met in two sessions in 2018 (Nairobi and Geneva), covered a broad range of questions around barriers and response options.<sup>25</sup> During the exchange of views, experts highlighted the “urgent need for action”, noting that, while “prevention is paramount”, it was also “critical to address legacy marine litter and microplastics already in the environment”.

While it was recognized that a number of existing international agreements provided opportunities for strengthening the global governance framework on this issue, “many representatives said that a new legally binding instrument was necessary to adequately address the threat of marine litter, given the scale and complexity of the challenge”. The report from the second AHEG meeting included an annex with “potential options for continued work for consideration” by UNEA. Among these were proposals related to the “need to strengthen the science-policy interface at the international level”, as well as the option

<sup>24</sup> United Nations official document UNEP/EA.3/Res.7, para. 10(d).

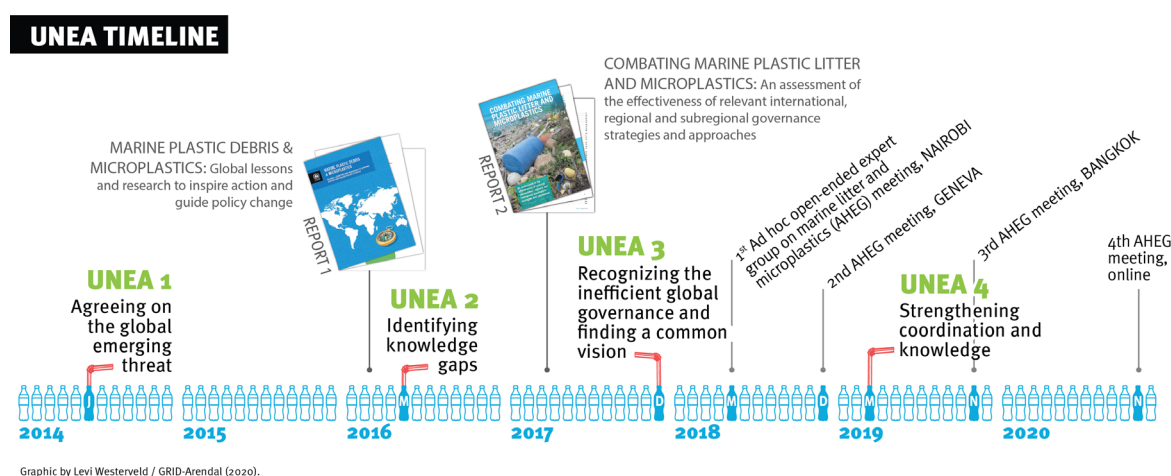
<sup>25</sup> For the official report, see United Nations official documents UNEP/AHEG/2018/1/6 and UNEP/AHEG/2018/2/5.

to consider “strengthening coordination at the global level through existing partnerships and mechanisms” to “encourage new, and enhance existing, forms of financial and technical support to developing countries”; and to “consider the feasibility and effectiveness of a potential international legally binding agreement on marine litter and microplastics”.

In 2019, UNEA-4 decided to extend the mandate of the AHEG. While some States had expressed an interest in establishing a new AHEG focused more specifically on “the design and elements of a new and comprehensive global governance and coordination agreement (including the consideration of a legally binding agreement)”,<sup>26</sup> this proposal did not achieve sufficient support. Instead, the mandate of the existing AHEG was extended until UNEA-5. In addition, the expert

group was given a list of supplementary issues to explore, “building on its previous work”.<sup>27</sup> Specifically, the expert group was requested to “take stock of existing activities and actions”, “identify technical and financial resources or mechanisms”, “encourage partnerships”, and “analyse the effectiveness of existing and potential response options and activities”. At the third AHEG meeting, held in December 2019, many government experts continued, however, to discuss and call for a new global agreement on marine plastic pollution.<sup>28</sup> And at the fourth and final AHEG meeting, held virtually in November 2020, these calls continued to grow in strength, with a number of Member States recommending that a mandate for negotiations be adopted at the fifth session of UNEA, which is scheduled to be held in February 2022.<sup>29</sup>

**Figure 2: Timeline of UNEA activities related to marine plastics: resolutions, reports, and AHEG meetings**



<sup>26</sup> The various drafts of the resolution are available at <https://papersmart.unon.org/resolution/node/255> (requires login).

<sup>27</sup> United Nations official document UNEP/EA.4/Res.6, para. 7.

<sup>28</sup> See United Nations official document UNEP/AHEG/2019/3/6. All relevant documents from the third AHEG meeting are available at <https://papersmart.unon.org/resolution/third-adhoc-oeeeg>.

<sup>29</sup> See Revised Draft Chair's Summary, para. 22–23. Available at <https://papersmart.unon.org/resolution/Fourth-adhoc-oeeeg> (requires login).

## 2.2 Growing calls for a new global agreement

In parallel to discussions at UNEA and the sessions of the AHEG, recognition of marine plastic pollution as an urgent and growing problem has increased considerably among governments, civil society organizations, businesses, the scientific community, and the general public. A plethora of measures at the national, regional, and global level have been introduced, including national bans on certain categories of plastic products and on the use of microbeads in cosmetics;<sup>30</sup> regional marine litter action plans;<sup>31</sup> and several global initiatives, partnerships, and strategies.<sup>32</sup> In addition, efforts have also been made to address the problem of marine plastic pollution within existing legal frameworks and intergovernmental institutions.<sup>33</sup>

When the first resolution on marine debris and microplastics was adopted by UNEA in 2014, the question of whether a new legally binding agreement was needed in order to tackle the problem of marine plastic pollution did not feature prominently in the discussions among States.

Over the past two years, however, this has begun to change. As noted above, many States have used the AHEG meetings to voice their support for a new and more effective global governance structure, but calls for a new agreement have also been made outside the auspices of UNEP. These calls include:

- In September 2018, leaders of the Pacific Island region adopted a regional action plan whereby they would “support the development of a global legal framework to address marine litter and microplastics”.<sup>34</sup>
- In April 2019, leaders of the Nordic countries called for “the development of a global agreement to more effectively and comprehensively deal with the issue of marine plastic litter and microplastics on a global level in an integrated manner”.<sup>35</sup>
- In July 2019, leaders of Caribbean countries expressed “the urgent need for a global agreement to address plastics and microplastic pollution”.<sup>36</sup>

<sup>30</sup> A large number of States have introduced bans on single-use plastic bags. For an overview of national policies on plastic bags and Styrofoam, see for instance UNEP (2018) “Single-Use Plastic: A Roadmap for Sustainability”, United Nations Environment Programme, Nairobi.

<sup>31</sup> For an overview of regional action plans on marine litter, see for instance <https://www.grida.no/resources/6928>.

<sup>32</sup> On the global level, an array of initiatives, partnerships, and strategies have been launched over the past decade, including the Honolulu Strategy (2011), Global Partnership on Marine Litter (2012), and Clean Seas Campaign (2017). In addition, action plans to combat marine litter have been adopted by both the G7 (2015) and the G20 (2017). In 2019, the G20 also endorsed the Osaka Blue Ocean Vision of reducing “additional pollution by marine plastic litter to zero by 2050” and called on the international community to share that vision. In 2018, five of the G7 States agreed on an Ocean Plastics Charter, and in 2018 UNEP and the European Union (EU) jointly launched a Global Plastics Platform.

<sup>33</sup> There have also been a number of developments relating to marine plastic pollution within existing legal frameworks and intergovernmental institutions. In 2018, the United Nations Food and Agriculture Organization (FAO) adopted a set of Voluntary Guidelines on the Marking of Fishing Gear, and the International Maritime Organization adopted the IMO Action Plan to address marine plastic litter from ships. And in May 2019, the parties to the Basel Convention agreed to an amendment that tightens control of transboundary movement of plastic waste. At the same meeting of States parties, a new Partnership on Plastic Waste was also established.

<sup>34</sup> Forum Communiqué, Forty-Ninth Pacific Islands Forum Nauru, 3–6 September 2018, held in Yaren, Nauru, para. 29. Available at <https://www.forumsec.org/forty-ninth-pacific-islands-forum-nauru-3rd-6th-september-2018/>.

<sup>35</sup> “Nordic ministerial declaration on the call for a global agreement to combat marine plastic litter and microplastics”, 10 April 2019, para. 8. Available at <https://www.norden.org/en/declaration/nordic-ministerial-declaration-call-global-agreement-combat-marine-plastic-litter-and>.

<sup>36</sup> Attached to the communiqué issued at the conclusion of the Fortieth Regular Meeting of the Conference of Heads of Government of the Caribbean Community (CARICOM), held at Gros Islet, Saint Lucia, 3–5 July 2019. Available at <https://today.caricom.org/2019/07/06/communique-issued-at-the-conclusion-of-the-fortieth-regular-meeting-of-the-conference-of-heads-of-government-of-the-caribbean-community-gros-islet-saint-lucia-3-5-july-2019/>.

- In November 2019, leaders of African countries committed to “supporting global action to address plastic pollution, which will require further work in order to engage more effectively on global governance issues relating to plastic pollution, including reinforcing existing agreements or the option of a new global agreement on plastic pollution”.<sup>37</sup>
- In November 2019, the EU Council stressed “the importance of stepping up global actions for preventing the leakage of plastic litter and other harmful substances into the environment, and in particular the oceans, including through the consideration of an international agreement to address plastic pollution, in particular marine plastics pollution”.<sup>38</sup> A year later, in October 2020, the EU Council explicitly committed “to work towards a global agreement to reduce plastic marine litter”.<sup>39</sup>
- In June 2020, Antigua and Barbuda, Norway, and the Maldives launched a Group of Friends to Combat Plastic Pollution among permanent missions to the UN in New York. In total, 44 States, plus the EU, joined the group as founding members. One of the expressed objectives of the group is to “support the process to explore global response options, including a new global agreement”.<sup>40</sup>
- In September 2020, leaders of most Baltic Sea countries committed to “to promote and actively work for a global agreement to reduce and prevent plastic marine litter and micro plastics”.<sup>41</sup>

In total, these regional decisions and declarations include more than 100 States. With the additional States joining as founding members of the Group of Friends to Combat Plastic Pollution in New York, it accounts for more than two-thirds of the UN membership. This broad and growing support among States for exploring the option of a new global agreement on plastic pollution also constitutes the main rationale for producing this report.

<sup>37</sup> The Durban Declaration, adopted at the Seventeenth Regular Session of the African Ministerial Conference on the Environment (AMCEN), held in Durban, South Africa, 11–15 November 2019, para 29. Relevant documents are available at <https://www.unenvironment.org/events/conference/seventeenth-regular-session-african-ministerial-conference-environment-amcen>.

<sup>38</sup> Council conclusions on Oceans and Seas, document no. 14249/19, 19 November 2019, para. 45. Available at <https://www.consilium.europa.eu/media/41384/st14249-en19.pdf>. See also EU Commission (2020), “Leading the way to a global circular economy: state of play and outlook”, Commissions Staff Working Document, Brussels, 11 March 2020, SWD(2020) 100 final, pp. 20-21. Available at [https://ec.europa.eu/environment/circular-economy/pdf/leading\\_way\\_global\\_circular\\_economy.pdf](https://ec.europa.eu/environment/circular-economy/pdf/leading_way_global_circular_economy.pdf).

<sup>39</sup> Council conclusions on Biodiversity, 23 October 2020, para. 47. Available at <https://www.consilium.europa.eu/en/press/press-releases/2020/10/23/council-adopts-conclusions-on-the-eu-biodiversity-strategy-for-2030/>.

<sup>40</sup> See <https://www.norway.no/en/missions/UN/news/news-from-norwayun/CombatMarinePlastic/>.

<sup>41</sup> Ministerial Declaration, “Our Baltic” Conference, 28 September 2020, para 21. Available at [https://ec.europa.eu/info/sites/info/files/ministerial\\_declaration\\_our\\_baltic\\_conference.pdf](https://ec.europa.eu/info/sites/info/files/ministerial_declaration_our_baltic_conference.pdf).







# 3.

## What is a global agreement?

As of writing, no formal mandate for negotiations has been adopted, yet States and other actors have already begun exploring what a new global agreement on marine plastic pollution could look like,<sup>42</sup> and discussions are taking place in various forums and at various levels. As a background for these discussions, this section introduces and explains some of the basic terms and concepts of international law, and notes certain common features and points of variance. The section also introduces some of the typical challenges involved in the design of a new international agreement.

### 3.1 Basic terms and clarifications

The term “global agreement” does not have a specific definition under international law. Like the related terms “multilateral agreement” or “international agreement”, however, it can be understood, at its most basic, as an agreement between sovereign

<sup>42</sup> As an example, the Nordic countries decided, in April 2019, to “provide financial support for a Nordic Report to inform decision-making, sketching out the possible elements and approaches of a new global agreement”. The full declaration is available at <https://www.norden.org/en/declaration/nordic-ministerial-declaration-call-global-agreement-combat-marine-plastic-litter-and>. The report was launched on 19 October 2020 and is available at <https://www.nordicreport2020.com>.

States. The term “global” is sometimes used to specify that an agreement is open to all States, as opposed to, for example, regional agreements. For most observers, the term “global agreement” would likely be associated with a legally binding instrument. In principle, however, a global agreement could be non-binding, or politically binding, depending on what the intent of the parties was when it was negotiated and adopted. Since none of the regional declarations or decisions mentioned above specify that a new global agreement on marine plastic pollution should be legally binding, we apply, in the following, a broad understanding of the term.

## Designations

There is considerable variation in the terms used to describe agreements between States.<sup>43</sup> Designations such as “treaty” and “convention” generally suggest that the agreement is legally binding, and the term “protocol” is normally used to refer to legally binding agreements concluded between parties to an existing convention (including, but not always, framework conventions). Other designations, such as “decision”, “declaration”, or “plan of action”, indicate that the agreement in question is not legally binding. Note, however, that the term used in the title of a particular document does not have any direct bearing on its legal status. A plan of action can, in some cases, be legally binding. The 2013 regional plan on marine litter management in the Mediterranean, for example, is legally binding.<sup>44</sup>

## Binding force

As noted above, whether or not a document is considered a legally binding agreement is

essentially a question of intent; it is legally binding if the parties meant for it to be legally binding. In practice, however, the legal or non-legal character of a global agreement can usually be determined by the process through which it is adopted, brought into force, applied, and, if needed, amended or terminated. Today, most multilateral legally binding agreements are concluded in accordance with the procedures stipulated in the 1969 Vienna Convention on the Law of Treaties (VCLT). Some of the key requirements for the conclusion of a legally binding instrument under the VCLT include:

- The agreement must be signed, either in person or through a representative with “full powers”, by a Head of State, Head of Government, or Minister for Foreign Affairs.<sup>45</sup>
- The State must formally declare its consent to be bound by the terms of the agreement through a process of ratification, acceptance, approval, or accession.<sup>46</sup> In most countries, this step requires approval by the national parliament.
- Unless and until a State goes through the required steps to formally withdraw from the agreement, and unless otherwise explicitly stated in the agreement, the State remains bound by its provisions indefinitely.

Non-legally binding agreements are typically concluded under a different – and normally lighter – set of rules than those codified in VCLT. As an example, the Aichi Targets, which were agreed and adopted in 2010 by the parties to the Convention on Biological Diversity (CBD),<sup>47</sup> did not require signature by Heads of State (or a representative with “full powers”), were not subject to approval by

<sup>43</sup> Terms include “treaty”, “convention”, “charter”, “accord”, “protocol”, “declaration”, “guidelines”, “code of conduct”, “plan of action”, “agenda”, “resolution”, “document”, “compact”, and “agreement”.

<sup>44</sup> For more information about the Barcelona Convention and Protocols, see <https://www.unenvironment.org/unepmap/who-we-are/barcelona-convention-and-protocols>.

<sup>45</sup> VCLT, Article 7(2)(a)

<sup>46</sup> VCLT, Article 14.

<sup>47</sup> Conference of the Parties (COP) 10 Decision X/2.





© UNEP/Florian Füssstetter & EcoWorld Watamu

parliament, and are not considered legally binding. By contrast, the 2015 Paris Agreement, which was also adopted by the parties to an existing convention (the 1992 United Nations Framework Convention on Climate Change–UNFCCC), required formal consent by 55 States in order to enter into force,<sup>48</sup> and in legal terms it constitutes the equivalent of a protocol to the UNFCCC, even if the term “protocol” is not used in the title of the agreement.

Traditionally, when the international community has been faced with an issue of transboundary concern, the default response has been to develop a legally binding agreement – in particular if the resolution of the issue at hand requires long-term commitment from States, or if the issue is of a character that is conducive to free riding or cheating.

There is a multitude of global agreements in existence today, addressing a wide range of issues of international concern. While the term

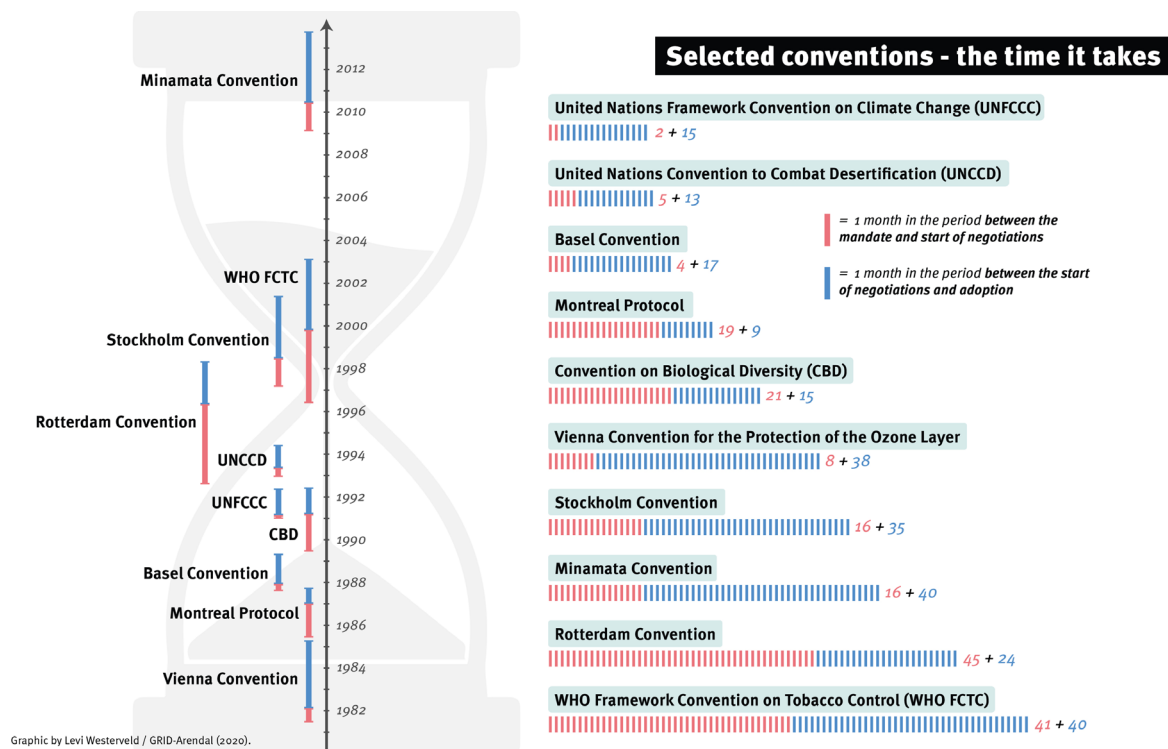
“global agreement” does not have a precise legal meaning, in this report, the term is understood as a multilateral agreement with an open membership; that is to say, an agreement that any State can become party to. Such agreements vary greatly in terms of thematic scope, membership,<sup>49</sup> and binding force. For example, the United Nations General Assembly resolution containing the 2030 Agenda for Sustainable Development is, one could argue, a global agreement that covers a broad range of thematic issues and is open to all United Nations Member States, but it is not legally binding.<sup>50</sup> By contrast, the Montreal Protocol is a legally binding agreement with a relatively narrow thematic scope and objective, namely to control substances that deplete the ozone layer.

The process of designing an agreement normally starts with a mandate and, followed by preparation time, an intergovernmental negotiation process, adoption of text, signatures by States, and the date when the convention enters into force.

<sup>48</sup> Paris Agreement, Article 21. To enter into force, the minimum of 55 States had to also account for “at least an estimated 55 per cent of the total global greenhouse gas emissions”.

<sup>49</sup> Multilateral treaties usually specify which States (and sometimes international organizations) are eligible to participate in the treaty. If the term “all States” is used in the treaty, that is understood, in a United Nations context, to mean “all States that are members of the United Nations or of any of the specialised agencies or of the International Atomic Energy Agency or Parties to the Statute of the International Court of Justice”. For more information about the practice of the Secretary General as depositary of international treaties, see United Nations official document ST/LEG/7/Rev.I, paras. 79-86.

<sup>50</sup> United Nations General Assembly Resolution A/RES/70/1, “Transforming our world: The 2030 Agenda for Sustainable Development”. Note that the SDGs are usually not referred to as a “global agreement”, and most international lawyers would not consider them as such.

**Figure 3: Selected conventions – the time it takes**

### Purpose, structure, and treaty elements

Agreements between States can be understood as strategic tools of foreign policy – tools that enable States to pursue their objectives across national borders. As such, they tend to address situations in which some States' goal achievement is influenced or impacted by the actions or omissions of other States. In the field of environmental law, many global agreements arise out of an identified need to overcome so-called *collective action problems*; that is, a situation “in which the uncoordinated actions of each player may not result in the best outcome”.<sup>51</sup> Quite often,

States negotiate and enter into agreements in order to solve common problems and/or set common standards.

In general, a global agreement can be thought of as a diplomatic tool to: (1) formulate a *shared understanding* of an issue of international, transnational, or global concern; (2) articulate a set of *obligations, commitments, and authorizations* that States would commit to with the aim of addressing the issue of concern; and (3) establish *the institutional structures and other collective arrangements* between States needed to facilitate the realization of the agreement's purpose.

<sup>51</sup> Garrett W Brown, Iain McLean, and Alistair McMillan (2018), *A Concise Oxford Dictionary of Politics and International Relations* (4 ed.), Oxford University Press Print Publication. In game theory, a famous example of a collective action problem is the so-called prisoner's dilemma.

The shared understanding of an issue is articulated primarily in an agreement's *preambular paragraphs*, or preamble.<sup>52</sup> While the length and level of detail of the preamble of existing multilateral agreements varies greatly, it normally names and describes the *issue of main concern* and justifies the agreement's adoption by describing the issue's *impacts* and *causes*. In addition, the preamble in many cases situates the agreement within the policy area in which it is intended to function by explicitly referencing other instruments seen as relevant for the agreement's operation. Together with provisions that specify shared principles, definitions, and/or scope, the preambular paragraphs make up the *guiding elements* of a multilateral agreement.

The articulation of the shared rules and regulations for State action, including the common institutional structures, are reflected in an agreement's *operative elements*. Referred to variably as an agreement's "operative paragraphs", "provisions", "articles", "commitments", or, as a whole, the "main body", these elements describe what the parties to the agreement intend to do to address the issue in question – that is to say, the agreement's *prescriptive content*.

Broadly speaking, the *operative elements* of a global agreement can be further subdivided into: (1) the *core provisions*, that is, the acts that the parties to an agreement commit to or are authorized to carry out individually to address the issue of main concern; and (2) the *supporting provisions*, that is, the acts that the parties commit to or authorize to carry out individually or jointly to facilitate and enforce implementation of the *core provisions*, including through the creation of common institutional structures.

A third category of treaty elements is the *functional elements*, which include *formal provisions*

concerning the entry into force, depositary, languages, and withdrawal. These elements are not directly related to the acts that parties commit to or are authorized to carry out under the treaty, but are rather intended to specify the technical and legal aspects related to the agreement itself.

### 3.2 Typical challenges in designing effective agreements

Understood as an attempt to solve a *collective action problem*, the overarching purpose of a global agreement would be to provide States with incentives to do something (or refrain from doing something) that they would not otherwise do (or refrain from doing) unilaterally. The effectiveness of a given agreement can thus be measured in terms of the extent to which it succeeds in changing the behaviour of States.<sup>53</sup>

#### Articulating a convincing rationale for a treaty

A first challenge in designing effective global agreements is to articulate a convincing case for why a new global agreement is needed. Why can't this issue be dealt with on a national or regional level? In developing the rationale for a global treaty, States tend to emphasize the *transboundary properties* of a given issue, highlighting, for instance, that the problem is caused by a specific mode of interaction across borders (such as international trade or travel); that its causes and effects are located in different countries (such as sulfur emissions or oil spills from ships); and/or that the issue concerns areas beyond national jurisdiction (such as the marine environment or the atmosphere). Insofar as the acts or omissions by one State have adverse unintended consequences for many other States, as is often the case for environmental problems, the issue's transboundary properties

<sup>52</sup> To the extent that provisions articulating the shared understanding of the issue expand beyond the preambular paragraphs.

<sup>53</sup> The effectiveness of international environmental agreements has been the subject of academic research for several decades. For a brief overview of relevant academic literature, see for instance Oran Young (2011), "Effectiveness of international environmental regimes: Existing knowledge, cutting-edge themes, and research strategies", PNAS, December 13, 2011, vol. 108, no. 50.



can be referred to as a *multilateral externality*. In general, the case for a multilateral agreement will be strengthened if the issue has a clear transboundary dimension.

### Identifying the most effective regulatory interventions

A second challenge in the design of an effective agreement is to identify and articulate provisions that will, if implemented by the agreement's parties, effectively resolve the issue of concern. In exploring the merits of possible core provisions, it will be important to consider both the cost-effectiveness of a given regulatory measure and the ease with which it can be implemented across different national jurisdictions. That said, no issue is the same, and some problems are inherently more difficult to solve than others. For issues with *simple causal structures*, such as overfishing or the dumping of waste into areas beyond national jurisdiction, it might be relatively easy to identify effective and implementable core provisions. For issues with more *complex causal structure*, however, such as climate change or biological diversity, identifying and articulating effective core provisions can be considerably more difficult.<sup>54</sup> This is partly because the causes of a particular issue may be many and not always fully understood, and partly because of asymmetries – both of causes and effects – between countries.

There are several strategies available to aid States in developing effective regulatory interventions. First, while it may be difficult to identify a provision or a set of provisions that will address the problem as a whole, it may be possible to identify provisions that will, if implemented, address a significant part of the problem. As an example, the Montreal Protocol initially only required a 50 per cent reduction in production and consumption of controlled substances. A related strategy is to

disaggregate the issue into more manageable pieces, and to tailor-make core provisions for the various subcategories of the problem. The International Convention for the Prevention of Pollution from Ships (MARPOL), with its issue-specific annexes, is a case in point, as is the 1979 Convention on Long-Range Transboundary Air Pollution (CLRTAP).

Second, it may be possible to articulate provisions that do not commit parties to carry out or refrain from a specific *act*, but instead commit parties to do what is necessary in their context to achieve a specified *outcome*. These types of *outcome-oriented* provisions are quite common in international environmental agreements seeking to reduce emissions of certain substances, though such provisions have often turned out to be difficult to enforce. The 1985 Helsinki Protocol to CLRTAP, for instance, required parties to reduce their sulfur emissions by 30 per cent by 1993, but did not specify how that should happen (the acts required).

And third, insofar that the causes of a particular problem are not fully understood and the search for effective core provisions is likely to require more time, it may be possible to agree to certain rules and procedures (including for decision-making) that would allow for a gradual strengthening of the core provisions or the development of more specific provisions over time, either through amendments (including of annexes) or through the adoption of additional protocols. Gradual strengthening of the agreement over time, based on the principle of progression,<sup>55</sup> may also be facilitated by the creation of dedicated subsidiary bodies, for instance in the form of scientific panels or committees tasked with evaluating the effectiveness of regulatory measures. Here, too, there are lessons to be learned from the Montreal Protocol.

<sup>54</sup> In the academic literature on regime effectiveness, the terms “malign” and “benign” are often used to signal whether an issue is considered easy or difficult to tackle. See for instance Edward L. Miles et al. (2002), *Environmental Regime Effectiveness: Confronting Theory with Evidence*, MIT.

<sup>55</sup> See United Nations official document A/73/419, para 22.

## Incentivizing participation and compliance

A third challenge in the design of effective agreements is to ensure that States sign up to and actually implement the provisions. Challenges related to participation and implementation are interlinked: a State is generally unlikely to commit to and implement the provisions of an agreement unless it can be reasonably confident that other States commit to and comply with the provisions as well. Because all States benefit from a global public good, while the costs are typically divided among those who choose to participate, there is a risk of *free riding*. If only a few States are perceived to be free riding, that might not necessarily cause problems for the legitimacy or effectiveness of the regime, but if a large group of States decide not to sign up to or comply with the new agreement, the cost of adherence may become prohibitively high for those that do.

The risk of free riding is further exacerbated in situations where implementation of a provision cannot be directly monitored and/or verified by other parties. In addition, while some States may be more heavily affected by a problem than others, some States may also be more impacted, directly or indirectly, by a particular provision. This may create asymmetries that make it more difficult to ensure that States sign up to and implement the agreement's provisions.

There are several strategies available to address this challenge as well. First, supporting provisions can commit parties to incorporate measures into domestic legislation and to self-report on past

and planned national implementation activities. Such transparency measures can be coupled with the establishment of a Conference of the Parties (COP), a secretariat, and/or a subsidiary body responsible for monitoring implementation. In combination, this can help generate greater *confidence in compliance*.

Second, to address situations in which some parties are more affected by a particular provision than others, a supporting provision committing States to *share technologies and fund implementation activities*, including through the possible establishment of a *joint implementation financing mechanism*, may provide an incentive for States to sign up to and implement the agreement. For some issues, it has also proven possible to design the agreement as a *bargain* in which the implementation of a set of provisions of primary benefit to some parties are made dependent on implementation of another set of provisions of primary benefit to other parties.

And third, to prevent free riding, it is possible, and quite common, to include a provision stipulating that the agreement will only enter into force as soon as a certain number of States or a certain category of States have ratified or otherwise acceded to it. In addition, it is possible to impose trade restrictions with non-parties or parties found in non-compliance with the agreement's provisions. As trade restrictions will potentially harm both States subject to such restrictions and States imposing them, they have to be designed carefully.







# 4.

## A new global agreement on marine plastic pollution?

Efforts to explore the option of a new global agreement on marine plastic pollution could be guided by asking some basic questions:

- How should the problem be formulated and understood?
- How should the obligations, commitments, and authorizations aimed at tackling that issue be articulated?
- What collective arrangements (including institutional structures) would be required to facilitate the achievement of the agreement's purpose?

This section presents some general guidance and options for how States can begin to answer these questions, including by drawing inspiration from a range of existing international environmental agreements.

## 4.1 Formulating a shared understanding of the issue

A first possible step in efforts to explore the option of a new global agreement would be to formulate a shared understanding of the issue of concern. Why is a new multilateral agreement needed, and what precisely is the problem that the agreement seeks to resolve?

As noted in Section 2.2, there is a growing recognition among States and other stakeholders that marine plastic pollution constitutes a significant and distinct environmental problem. In the context of the AHEG and UNEA, the issue has been framed around variations of the term “marine plastic litter and microplastics”, which is also reflected in the texts adopted by the Pacific Islands Forum (2018), the Nordic Council (2019), and the Caribbean Community (2019).

There are, however, nuances in the way the problem has been articulated. The 2019 Durban Declaration (African States), for instance, uses a slightly different framing of the problem, as the word “marine” is left out.<sup>56</sup> The EU Council decision from 2019 also opens up for a more expansive framing, with a primary but not exclusive focus on the marine environment.<sup>57</sup>

### Identifying the transboundary properties

For the purpose of elaborating a global agreement, the difference between “plastic pollution” and “marine plastic pollution” is relevant, as it raises the question of whether the agreement will also cover non-transboundary aspects of plastic pollution. As noted in Section 3, multilateral agreements are usually put in place to address situations in which one State’s goal achievement

is influenced or impacted by the acts or omissions of other States; that is to say, acts or omissions that have transboundary properties. Indeed, it is the transboundary properties of a given issue that makes it a collective action problem in the first place.

For example, while the process to develop the 2013 Minamata Convention on Mercury was driven by evidence of the harmful neurological and other health effects of mercury, the key justification for the elaboration of a multilateral agreement to address this issue was evidence showing the transboundary atmospheric transport of mercury compounds, as reflected in the Convention’s preamble.<sup>58</sup> Similarly, the harmful effects of sulfur emissions were discovered in Sweden in the 1960s, but it was only when several other countries realized they were also harmed by transboundary acid rain that the negotiation of the 1985 Helsinki Protocol became a relevant policy option.<sup>59</sup>

At the same time, it is possible, in principle, to develop a new global agreement addressing all types of plastic pollution, transboundary as well as non-transboundary. There may also be good reasons for wanting to do so. For most States, domestic (non-transboundary) plastic pollution is a more visible and pressing issue than the plastic in the ocean beyond national jurisdiction. Moreover, if there is no way of knowing where a particular plastic product will end up (ocean, landfill, incinerated, recycled), one would in practice have to prevent all leakage in order to ensure that none of it ends up in the ocean. From that perspective, the distinction between marine and terrestrial (or transboundary and non-transboundary) plastic pollution would seem irrelevant.

<sup>56</sup> The Durban Declaration also uses the word “pollution” instead of referring to the precise term “litter and microplastics”. In terms of framing, that is arguably of less significance, however, since the UNEA resolutions also employ that term on multiple occasions (23 times in total, across the four resolutions).

<sup>57</sup> EU Council conclusions on Oceans and Seas, document no. 14249/19, 19 November 2019, para. 45.

<sup>58</sup> Minamata Convention on Mercury. Available at [www.mercuryconvention.org](http://www.mercuryconvention.org).

<sup>59</sup> 1985 Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent.

In exploring the option of a new global agreement, however, it is important to consider whether a solution to non-transboundary plastic pollution, strictly speaking, requires international cooperation. Is the ability of a given State to tackle its own domestic plastic pollution influenced or impacted by the acts or omissions of other States? In principle, nothing prevents a given State from banning all leakage-prone plastic products within its own jurisdiction. In practice, of course, in a globalized world where goods, people, and services flow across borders, the implementation and enforcement of such national policies could be rather challenging unless other States adopt similar measures.

It is also worth noting that the plastic found in the marine environment is not the only transboundary aspect of the plastic pollution problem. Plastic can also cross borders over land or through the atmosphere in the form of particles.<sup>60</sup> With that in mind, one could consider a framing of the problem as “transboundary plastic pollution”, which would not be focused exclusively on the marine environment, but would still leave non-transboundary pollution out of the thematic scope of the agreement.

Regardless of how States choose to frame the issue, it should be stressed that even if the framing of the problem is focused on marine forms of plastic pollution, it is highly likely that the measures introduced to curb the leakage of plastic into the ocean would have positive spillover effects on efforts to tackle non-transboundary plastic pollution as well. This has been the

case for most other multilateral environmental agreements, with the efforts to address long-range transboundary air pollution being one example.

## 4.2 Articulating obligations, commitments, and authorizations

Having developed a shared understanding of the issue of main concern, a possible next step is to consider how the rules and regulations aimed at tackling the problem should be articulated. What kinds of obligations, commitments, or authorizations would States have to adhere to in order to ensure that marine plastic pollution is effectively addressed? Which acts would the States parties have to regulate domestically to provide a credible path towards the achievement of the overall objective of the treaty? What are the “best available techniques” and “best environmental practices” for tackling discharge of plastic into the ocean?<sup>61</sup>

Existing measures to curb the leakage of plastic into the environment come in many shapes and forms – from bans or levies on plastic carrier bags to marking requirements for fishing gear – and this pool of existing regulatory interventions can serve as a useful starting point in the search for specific policy measures that might be included as core provisions under a new global agreement.<sup>62</sup> A range of examples of such measures have already been presented and mapped in the context of UNEA and the AHEG meetings. For instance, at the third meeting of the AHEG, in Bangkok in November 2019, stocktaking of existing actions and activities was one of the main agenda items.<sup>63</sup>

<sup>60</sup> See, for instance, Bergmann et al. (2019), “White and wonderful? Microplastics prevail in snow from the Alps to the Arctic”, *Science Advances*, 14 Aug 2019: Vol. 5, no. 8. Available at <https://advances.sciencemag.org/content/5/8/eaax1157>.

<sup>61</sup> See for instance Article 2 of the Minamata Convention for definitions of the terms “best available techniques” and “best environmental practices”.

<sup>62</sup> For an overview of policies introduced over the past decade, see Rachel Karasik, Tibor Vegh, Zoie Diana, Janet Bering, Juan Caldas, Amy Pickle, Daniel Rittschof, and John Virdin (2020), “20 Years of Government Responses to the Global Plastic Pollution Problem: The Plastics Policy Inventory”, NIX 20-05, Durham, NC: Duke University. Available at <https://bit.ly/DukePlasticsReport>.

<sup>63</sup> Item 6(a) on the agenda. See e.g. UNEP/AHEG/2019/3/6. Note that there is currently no comprehensive and regularly updated global overview in place that lists and evaluates the effectiveness of regulatory responses on a national level to prevent marine plastic pollution. The GPA was meant to have a clearing-house mechanism, but efforts to develop and maintain this mechanism have been constrained by a lack of funding (see for instance UNEP/GPA/IGR.4/INF/3, pp. 28–29).



Policy options mentioned in the context of the AHEG meetings include measures aimed at:<sup>64</sup>

- a. regulating production and consumption of plastics or plastic products**, including through prohibitions, restrictive levies, tax incentives, design standards, labelling requirements, or other extended producer responsibility measures on the production, use, trade in, and/or export and import of specific types of plastics (notably microplastics, fishing gear, single-use plastics such as Styrofoam packaging, plastic bags, plastic bottles, plastic cups, and plastic straws);
- b. improving waste management systems**, including by upgrading waste collection, sorting, processing, recycling, and reuse systems; improving port waste reception facilities; and implementing waste-to-energy and plastic-to-fuel technologies; and,
- c. recovering plastic from the marine environment**, including through fishing-for-litter schemes, ocean-based clean-up installations, and coastal clean-up campaigns.

In addition, many have noted the need for measures to raise awareness among the public about the impacts and need to address marine plastic pollution.

Each of these policy options should be considered on its own merits, including in terms of cost-efficiency and ease of implementation, and it is likely that some will have more precise and targeted effects on preventing discharge of plastic into the marine environment than others. What

seems clear, however, is that there are a variety of regulatory measures introduced on national and regional levels around the world, and that, while some of these measures have been more frequently employed than others, there is little sign that one specific regulatory intervention is being singled out as the key solution to the problem. The overall picture is that plastic pollution needs to be addressed in a multitude of ways, at various points in the value chain.

This is relevant because it suggests that the identification of specific regulatory measures to effectively tackle the problem could be a challenging task, even on a national level. This in turn points in the direction of marine plastic pollution being a problem with a relatively complex causal structure, which may in part be ascribed to a significant amount of uncertainty (not only about scale, causes, and effects, but also about the effectiveness of various response options) as well as a considerable degree of asymmetry (both within and between States, and with variations along the value chain).

There are several analytical models available that can assist States and other actors in their efforts to develop a more precise understanding of the particular dynamics of the issue of marine plastic pollution. One example is the linear causal chain model developed by the Global International Waters Assessment (GIWA), which links the causes of a problem with its effects by identifying root causes, underlying causes, immediate causes, direct environmental impact, and direct and indirect socioeconomic impact.<sup>65</sup> Another example is the Driver-Pressure-State-Impact-Response (DPSIR) framework, which offers an alternative non-linear model,

<sup>64</sup> The policy measures listed here are drawn from the official reports of the AHEG (UNEP/AHEG/2018/1/6, especially paras 60-69; UNEP/AHEG/2018/2/5; and UNEP/AHEG/2019/3/6, especially paras 25-38). See also <https://papersmart.unon.org/resolution/adhoc-oeeq> for additional materials and documents from the work of the AHEG.

<sup>65</sup> Juan Carlos Belausteguigoitia (2004), "Causal chain analysis and root causes: The GIWA approach", *Ambio*, Vol. 33 no. 1-2, Feb. 2004. Available at [https://www.researchgate.net/publication/8618947\\_Causal\\_chain\\_analysis\\_and\\_root\\_causes\\_The\\_GIWA\\_approach](https://www.researchgate.net/publication/8618947_Causal_chain_analysis_and_root_causes_The_GIWA_approach).

emphasizing the interdependence of the causal components of an issue.<sup>66</sup>

### **Disaggregating the problem and identifying priority categories**

If it proves difficult to identify regulatory measures that would address the problem in its entirety – that is, to formulate a set of obligations, commitments, or authorizations that in combination would be sufficient to create a viable path towards the achievement of the long-term objective – it could be helpful to structure the problem into subcategories, which in turn could be prioritized. This is a quite common approach, and in existing multilateral environmental agreements such categorizations can often be identified in annexes<sup>67</sup> or issue-specific protocols.<sup>68</sup> The 2001 Stockholm Convention on Persistent Organic Pollutants, for instance, differentiates between chemicals that are to be eliminated (Annex A) and chemicals that are to be restricted (Annex B). Similarly, the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) separates animal species into three categories based on how endangered they are (Appendices I, II, and III).<sup>69</sup>

In ongoing multilateral discussions on marine plastic pollution, including at UNEA and the AHEG meetings, a number of specific subcategories of the marine plastic pollution problem have already been introduced. The distinction between land-based sources and sea-based sources, for instance, features prominently in the four resolutions adopted to date. Another example is the categorization of the problem along the value chain for plastics (e.g. processing, production, consumption, and waste management). The issue

could also be categorized by sector, or even by expected use-time of plastic products.

When elaborating a causal chain and specifying categories for the issue of marine plastic pollution, it is also useful to consider the issue in light of environmental impact and risk. All marine plastic pollution can potentially cause environmental damage in one form or another, but some categories of plastic products can be expected to cause more harm to marine life than others. Risk can in this respect be conceptualized as a function of the severity of impact and the likelihood of discharge, and may vary according to size, shape, colour, or chemical composition of a given plastic item.

### **Regulating outcomes instead of acts**

According to the best available data, ocean discharge rates vary considerably between countries, as do production of plastic resin, product manufacturing, consumption patterns, and recycling capacity. These asymmetries pose an additional challenge for the design of common rules and regulations for all States, as specific regulatory interventions may, to a large extent, have to be tailored to national circumstances. As noted in Section 3, a common strategy for overcoming challenges related to asymmetry is to orient the core provisions of the agreement towards outcomes (e.g. emissions, discharge, releases, impact) rather than towards the regulation of specific acts (e.g. production, sale, trade, dumping, littering).

For the issue of marine plastic pollution, this could mean formulating a provision that requires States to achieve a certain reduction in discharge rates

<sup>66</sup> The DPSIR framework has been widely used over the past two decades, and a number of modifications have also been proposed. See, for instance, Sirak Gari, Alice Newton, and John Icely (2015), "A review of the application and evolution of the DPSIR framework with an emphasis on coastal social-ecological systems", *Ocean & Coastal Management*, Vol. 103, 2015, pp. 63-77, ISSN 0964-5691. Available at <http://www.sciencedirect.com/science/article/pii/S0964569114003652>.

<sup>67</sup> See for instance the Basel Convention or the Stockholm Convention.

<sup>68</sup> See for instance the CLRTAP, with specific protocols for different categories of long-range transboundary air pollution.

<sup>69</sup> CITES, Articles III, IV and V.

of plastic. It would then be up to States to decide how that target should be met, which is why the use of outcome-oriented provisions is sometimes referred to as a bottom-up approach. To facilitate the achievement of the reduction target, States could also consider including a supporting provision that requires States to develop and implement national strategies or action plans.

There are a number of existing treaties that make use of outcome-oriented provisions, and which also require the development of national action plans or strategies. Under CLRTAP, for instance, States parties have an obligation to reduce their overall sulfur emissions, or transboundary fluxes of such emissions, by at least 30 per cent, by no later than 1993.<sup>70</sup> The Protocol further requires States parties to “develop without undue delay national programmes, policies and strategies which shall serve as a means of reducing sulphur emissions or their transboundary fluxes”.<sup>71</sup>

An obligation to develop national strategies, plans, or programmes is also found in the CBD,<sup>72</sup> while in the Paris Agreement, the formulation and communication of “long-term low greenhouse gas emission development strategies” is articulated as an aspiration rather than an obligation (“should strive to”).<sup>73</sup> Note, however, that neither the CBD nor the Paris Agreement include provisions that require States parties to achieve a certain outcome (e.g. reduction target or conservation target). The long-term goal under the Paris Agreement, which might appear, at first glance, to be an outcome-

oriented core provision,<sup>74</sup> is in fact formulated as an overall objective of the agreement (guiding element), not as an obligation applicable to each State party (operative element).

Outcome-oriented provisions can also be used to address subcategories of the problem. As an example, the 2019 EU directive on the reduction of the impact of certain plastic products on the environment<sup>75</sup> requires Member States to “take the necessary measures to ensure” that by 2029, 90 per cent of plastic beverage bottles (of less than three litres) are separately collected for recycling.<sup>76</sup> The directive includes suggestions as to how that target (outcome) can be achieved (e.g. deposit-refund schemes), but leaves it up to Member States to decide how to do it. By contrast, when it comes to the recycled content in those same beverage bottles, the directive uses an output-oriented provision, stipulating that by 2030, such bottles must contain at least 30 per cent recycled material – a top-down approach, with the same technical requirement applicable in all Member States.

### Dealing with uncertainty

One seminal study estimates that mismanaged plastic waste in coastal populations could be generating an annual input of plastic to the ocean of between 4.8 and 12.7 million tonnes.<sup>77</sup> In addition, between 0.79 and 1.52 million tonnes of mismanaged plastic waste from non-coastal populations have been estimated to reach the

<sup>70</sup> Helsinki Protocol, Article 2. The goal of reducing sulfur emissions or their transboundary fluxes by at least 30 per cent is, in fact, included in the title of the protocol.

<sup>71</sup> Helsinki Protocol, Article 6.

<sup>72</sup> Article 6.

<sup>73</sup> Paris Agreement, Article 4(19). Note that under the Paris Agreement, States are instead required to prepare and present nationally determined contributions, which serve a similar purpose as the national action plans.

<sup>74</sup> See Article 2(1)(a) of the Paris Agreement, which includes the aim of “holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels”.

<sup>75</sup> Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, PE/11/2019/REV/1. Available at <https://eur-lex.europa.eu/eli/dir/2019/904/oj>.

<sup>76</sup> See Article 9 and Annex F of Directive (EU) 2019/904.

<sup>77</sup> Jambeck et al. (2015).



ocean every year through rivers.<sup>78</sup> Note that these numbers include uncollected plastic waste, which, according to another study, may account for as much as 75 per cent of the plastic that leaks into the ocean due to insufficient waste management.<sup>79</sup> On top of this, unknown amounts of waste, including plastic waste, are still being dumped or lost from ships,<sup>80</sup> and vast quantities of primary microplastics also leak into the ocean every year.<sup>81</sup>

While clearly demonstrating the gravity of the issue at hand, these numbers also serve to illustrate that there is considerable uncertainty surrounding the exact amounts of plastic that leak into the ocean from different sources and at different stages of the value chain. To a large extent, this is because the multitude of sources and pathways makes detailed monitoring extremely complicated, but it may also be related to the fact that there is currently no internationally agreed method in place for calculating leakage rates by country, or for measuring ocean discharge by source category.<sup>82</sup>

Moreover, the uncertainty surrounding sources and pathways spills over into uncertainty regarding effectiveness of response options. For the purpose of elaborating the elements of a new global agreement, this complicates the task of identifying common rules, regulations, and policy measures aimed at tackling the problem. As noted in Section 3, one strategy for dealing with such uncertainty is to design the new agreement in a way that facilitates the gradual strengthening of its

core provisions over time – in part by making sure knowledge about the problem is steadily improved (see Section 4.3 on institutional arrangements), but also by making sure the agreement can be amended or expanded when that is deemed necessary or desirable.

The utility of including detailed rules about how an agreement would be amended or adjusted can be illustrated with the case of the 1985 Vienna Convention on the Protection of the Ozone Layer (VCPOL) and its Montreal Protocol. The VCPOL itself, which was adopted two years prior to the Montreal Protocol, contains very few specific obligations, commitments, or authorizations. What it does, however, is require States to cooperate with a view to strengthening the agreement over time, including through “the formulation of agreed measures, procedures and standards” for the implementation of the convention.<sup>83</sup> Equally important, it specifies the procedure for adopting and amending protocols and annexes to the convention.<sup>84</sup>

The Montreal Protocol, which was adopted in accordance with the procedures articulated in VCPOL, includes specific procedures for how adjustments to the control measures in the agreement are to be made.<sup>85</sup> Combined with the amendment procedures stipulated in VCPOL, this has allowed the Montreal Protocol to gradually strengthen the original control measures, both by adjusting the timing and scope of the phased reductions and by adding further substances.

<sup>78</sup> Laurent Lebreton, Joost van der Zwet, Jan-Willem Damsteeg, Boyan Slat, Anthony Andrady, and Julia Reisser (2017), “River plastic emissions to the world’s oceans”. *Nat Commun*, 8, 15611.

<sup>79</sup> McKinsey & Company and Ocean Conservancy (2015), “Stemming the tide: Land-based strategies for a plastic-free ocean”, September 2015. Note that the study focused on five countries in Asia.

<sup>80</sup> See for instance Peter Ryan et al. (2019), “Rapid increase in Asian bottles in the South Atlantic Ocean indicates major debris inputs from ships”, *PNAS* October 15, 2019, 116 (42).

<sup>81</sup> See e.g. Eunomia (2016), “Plastics in the Marine Environment”. Available at <https://www.eunomia.co.uk/reports-tools/plastics-in-the-marine-environment/>.

<sup>82</sup> See for instance Julien Boucher, Carole Dubois, Anna Kounina, and Philippe Puydarrieux (2019), “Review of plastic footprint methodologies: Laying the foundation for the development of a standardised plastic footprint measurement tool”, International Union for the Conservation of Nature (IUCN).

<sup>83</sup> VCPOL, Article 2(c).

<sup>84</sup> Articles 8–10.

<sup>85</sup> See Article 2(9) and 2(10).

### 4.3 Establishing institutional structures and other collective arrangements

A third possible step in efforts to explore the option of a new global agreement could be to consider how the achievement of the agreement's purpose might be facilitated through the establishment of institutional structures and other collective arrangements. How should States interact in order to ensure that the issue of concern is addressed? What sorts of mechanisms or multilateral institutions would be required in order to generate confidence in compliance among the States parties? How would progress towards the long-term goal be monitored?

In the context of the AHEG, there has been frequent reference to the need to improve the coordination of ongoing efforts to address the issue of marine plastic pollution. There have also been specific discussions about a possible technical and financial mechanism, and about how to take stock of and assess the effectiveness of existing actions and activities.<sup>86</sup> The importance of strengthening the scientific knowledge about the issue has also been frequently noted.

Most multilateral agreements establish some form of institutional structure or other collective arrangements. These include, at a minimum, a COP and a secretariat. In addition, many agreements

stipulate the establishment of subsidiary bodies (sometimes called “committees”), for example on science and technology and/or implementation, as well as, in some instances, a financial mechanism.

Different institutional structures serve different purposes, but common to them all is that they form part of a collective effort to promote and facilitate the achievement of the agreement's overarching purpose. One of the key challenges in achieving that purpose is to ensure participation and compliance among States. As noted in Section 3, there are a number of strategies available for promoting participation and compliance, and several of them are related to the establishment of institutional structures and other collective arrangements.

Another challenge is to ensure complementarity with existing regional and global legal instruments and mechanisms regulating aspects of marine plastic pollution (see Figure 4). In general, a certain degree of overlap between legal instruments is not a problem, as long as the obligations are complementary and not in conflict with each other. In the institutional design of a new agreement, however, it will be important to stipulate as concretely as possible how the new collective arrangements will relate to collective arrangements established under existing agreements, so as to increase synergies and avoid duplication of efforts.

<sup>86</sup> See in particular UNEP/AHEG/2019/3/6. Inspiration may, in this respect, be drawn from work done on improving aid effectiveness, including through follow-up of the 2005 Paris Declaration.

**Figure 4: International instruments and their application to marine plastic litter**

Instrument	Acronym	Designation	Binding/voluntary	Gaps in addressing plastic pollution
United Nations Convention on the Law of the Sea	UNCLOS	Protection of the marine environment from all sources of pollution	Legally binding global instrument	Does not expressly address marine plastic litter or microplastics
International Convention for the Prevention of Pollution from Ships	MARPOL	Address marine pollution from ships	Legally binding global instrument	Requirement to carry onboard a garbage management plan applies only to vessels 100 gross tonnage (GT) or more / garbage record book required only for ships 400 GT and ships certified to carry 15 persons or more
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	London Convention	International dumping into the sea from ocean sources	Legally binding global agreement	Limited to international disposal of plastics at sea from ocean sources
Stockholm Convention on Persistent Organic Pollutants	Stockholm Convention	Chemicals	Legally binding global instrument	Scope limited to certain chemicals used in production of certain plastics
Basel Convention on the Transboundary Movement of Hazardous Waste and Their Disposal	Basel Convention	Hazardous wastes and other wastes	Legally binding global instrument	Scope limited to waste trade; plastics not defined as hazardous waste, although recently mixed plastics waste included in Annex 2
Global Programme of Action for the Protection of the Marine Environment from Land-based Activities	GPA	All land-based pollution	Non-binding governmental mechanism	Soft law instrument; no specific targets to prevent, reduce, or eliminate marine plastic litter or marine litter
Honolulu Strategy: A Global Framework for Prevention and Management of Marine Debris	Honolulu Strategy	All land and ocean sources of marine debris	Non-binding strategy	Does not provide specific targets to prevent, reduce, or eliminate marine plastic litter or microplastics

**Source:** UNEP, 2017. Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches.



## Generating confidence in compliance

In general, one could expect that States will be reluctant to commit to and comply with an agreement unless they can be reasonably confident that most other States are doing so as well. This is especially true if compliance comes at a certain cost. One way of dealing with this is to set up a system for monitoring and review. This would typically involve some form of self-reporting, whereby States parties communicate to each other the status of implementation.

Most multilateral environmental agreements require States to communicate some kind of information to the other States parties, but the scope and complexity of these reporting requirements vary. Under the UNFCCC, the national reporting arrangements have evolved into a “comprehensive measurement, reporting and verification (MRV) framework”,<sup>87</sup> with national communications, inventory submissions, biennial reports, technical reviews, and multilateral assessments. Under the Montreal Protocol, by contrast, States submit relatively short (as short as one page) annual updates on the production, consumption, and trade in controlled substances.<sup>88</sup>

In some cases, self-reporting is supplemented by, or even replaced by, third-party monitoring or a system that allows States parties to verify that the information communicated through national reports is accurate. This is the case for a number of nuclear-related agreements. Along those lines, one could imagine, for instance, that reported national discharge rates of plastic into the marine environment (calculated on the basis of a standardized and agreed method) could be verified using satellite images. Alternatively, the agreement could provide for verification by a relevant international organization, which could

be mandated to undertake control sampling. All of this is aimed at strengthening confidence in compliance among the States parties.

## Managing asymmetries and capacity restraints

A second strategy to promote participation and compliance is to share the burden of compliance as equitably as possible. For some States, compliance might come at a much higher cost, either in relative or in absolute terms, than for others. One way of addressing this is to facilitate the transfer of technical and financial resources, for instance by establishing a dedicated financial mechanism, where those States that are in a position to do so can contribute, while those in need of assistance can receive the required support.

Financial mechanisms are quite common under multilateral environmental agreements, though very few agreements have established separate structures for that purpose (the Montreal Protocol is one exception). A more common setup is to make use of the Global Environment Facility (GEF) as the implementing agency for the agreement’s financial mechanism.<sup>89</sup>

Another commonly used method for dealing with asymmetries is to differentiate between States in the formulation of the provisions of the agreement itself, for instance by distinguishing between developed countries and developing countries. While such differentiation between States or groups of States can be useful in terms of adding flexibility to the agreement, it also comes with certain risks. One such risk is that some States parties over time might come to see the distinction as unfair, which in turn could undermine the confidence in and credibility of the regime.

<sup>87</sup> See <https://unfccc.int/process-and-meetings/transparency-and-reporting/the-big-picture/what-is-transparency-and-reporting>.

<sup>88</sup> See <https://ozone.unep.org/countries>.

<sup>89</sup> For more information about the GEF, see <https://www.thegef.org/about-us>.

This is an issue the UNFCCC has struggled with over the years.

### Securing a critical mass of support

Since the burden of addressing an issue of concern is distributed among those that participate, while the public good that is achieved as a result is shared among all States, being the first to sign up and implement a multilateral agreement usually comes at a great disadvantage. Most multilateral agreements therefore stipulate a certain threshold of participation, and do not enter into force until that threshold is reached.

Entry-into-force requirements can be an important part of the overall incentive structure of an international agreement, particularly in terms of reaching a tipping point of participation (a critical mass of States parties). In the Montreal Protocol, the entry-into-force requirement was carefully designed with a view to getting a critical mass of States on board before the agreement became legally binding. This was done by using both a minimum number of States parties (11) and a minimum share of global consumption of ozone-depleting substances (two-thirds).<sup>90</sup> A similar approach was used in MARPOL, with a minimum of 15 parties required, constituting no less than 50 per cent of the gross tonnage of the world's merchant shipping.<sup>91</sup>

A related challenge is to make sure States continue to participate after the threshold is reached and the regime has become viable. In some cases, free riding will always be an issue (overfishing for instance), but in other cases, it is possible to design provisions that generate a tipping effect, or a network effect, whereby each additional State party adds to the benefits of remaining within

the regime. This can typically be achieved by incorporating rules about trade with non-parties.

Again, both the Montreal Protocol and MARPOL can serve as examples. By restricting trade with States that do not comply with the requirements of the agreements, the cost of non-compliance (or non-participation) increases for every new entrant to the regime (which would then be blocked off as a market). Similar provisions are also found in a number of other multilateral environmental agreements, including the Minamata Convention and the Stockholm Convention.

\*\*\*

This section has highlighted the challenge of ensuring participation and compliance, which is a recurring issue in the design and implementation of multilateral agreements. State sovereignty means that participation in multilateral agreements is, by definition, voluntary, which in turn implies that in order to be effective, agreements have to be designed in a way that makes States want to join. In game-theory jargon, the agreement has to be both individually rational and collectively rational.<sup>92</sup>

This is a common theme all through the elaboration of a new agreement: it is a key reason why the rationale for developing multilateral agreements tends to focus on the transboundary element of a given issue, it is the reason why core provisions should be articulated in ways that make them internationally verifiable and enforceable, and it is also highly relevant in the design of collective institutional structures.

<sup>90</sup> Montreal Protocol, Article 16.

<sup>91</sup> MARPOL, Article 15.

<sup>92</sup> Scott Barrett (2003), *Environment and Statecraft: The Strategy of Environmental Treaty-Making*, OUP Oxford, p. xiii.

#### 4.4 Key considerations for policymakers

- Identify the transboundary properties of marine plastic pollution.
- Analyse the causal chain of marine plastic pollution and consider disaggregating the problem into more manageable categories.
- Assess proposed core provisions with a view to cost-efficiency and ease of implementation.
- Consider whether provisions regulating acts or provisions regulating outcome of acts are more likely to effectively and efficiently solve the problem.
- Consider how the provisions of the agreement can be formulated so as to allow for the elaboration of more targeted provisions in the future as knowledge increases.
- Consider how the institutional structures of the new agreement can be designed so as to generate confidence in compliance, manage asymmetries and capacity restraints, and avoid free riding.





# 5.

## Conclusion

**Identifying the national policy measures that would, if they are faithfully implemented, achieve the goal of zero discharge of plastics into the marine environment, is a crucial step in the elaboration of a new agreement.**

Marine plastic pollution is an issue with a long history, but recognition of the need for a dedicated international response to the problem has intensified over the past few years, and support has recently been growing for the consideration of a new global agreement dedicated to addressing the issue of marine plastic pollution. At the time of writing, no formal mandate for negotiations has been adopted, but discussions among States and other stakeholders have been taking place in various forums and at various levels.

This report aims to contribute to these discussions by providing an overview of relevant events, resources, and frameworks, and to present some options and questions for consideration that States and other stakeholders can draw on in their efforts to explore what a new treaty on marine plastic pollution could look like. In doing so, it highlights some of the typical challenges involved in the elaboration and design of multilateral agreements. It also illustrates, through the use of examples, how some of these challenges have been dealt with in other international agreements.

Of these challenges, incentivizing participation in and compliance with a new agreement is considered to be of particular importance. Identifying the national policy measures that would, if they are faithfully implemented, achieve the goal of zero discharge of plastics into the marine environment, is a crucial step in the elaboration of a new agreement. However, these measures will not produce the



desired outcome unless States are provided with sufficiently strong incentives to implement them. Experience shows that national implementation of agreed policy measures cannot be taken for granted. How to deal with the risk of free riding and generate confidence in compliance with the provisions of a new agreement are key questions in need of further consideration.

If these challenges can be overcome, a new global agreement might turn out to be an important, if not indispensable, tool for tackling the harmful consequences of marine plastic pollution. First, it could generate a more precise shared

understanding of marine plastic pollution as an issue of transboundary concern and provide a strong basis for coordinated international action. Second, by articulating a common regulatory response, a new global agreement could focus and provide greater clarity and direction to efforts to address marine plastic pollution at international, regional, and national levels. And third, by establishing common institutional structures, a new agreement could strengthen international collaboration, facilitate financial burden sharing, and help States devise increasingly effective solutions as the causes and impacts of marine plastic pollution become better understood.











