Crafting an effective treaty on plastic pollution

Emerging fault lines in the intergovernmental negotiations

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Abstract

On 2 March 2022, the United Nations Environment Assembly agreed to start intergovernmental negotiations to develop a legally binding instrument on plastic pollution.

The idea of a bottom-up treaty that provides a loose, multilateral framework for countries to communicate their national-level policies, versus a top-down treaty that stipulates a common set of policies for all parties, is likely to become a major fault line in the upcoming negotiations for a treaty on plastic pollution.

The distinction between top-down and bottom-up is a recurring issue in discussions about multilateral treaty making. Simply put, “top-down” indicates that rules are adopted at the global level and then implemented at the national level, while “bottom-up” indicates that laws and policies are developed at the national level and then typically reported to the global level.

Should the new treaty require all parties to adopt and implement a common set of control measures? Or should the new treaty be a framework for parties to implement nationally determined control measures? This report examines the distinction between a bottom-up and a top-down approach to treaty-making, and argues that a plastic pollution treaty containing core provisions with specific and binding global rules and standards will likely address the problem of plastic pollution more effectively than a bottom-up treaty based solely on country-driven approaches.

Contents

List of abbreviations

ATT	Arms Trade Treaty
CBD	Convention on Biological Diversity
EU	European Union
INC	Intergovernmental negotiating committee
MEA	Multilateral environmental agreement
OEWG	Open-ended working group
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
WWF	World Wide Fund for Nature

Executive summary

- **The distinction between top-down and bottom-up is a recurring issue in discussions about multilateral treaty making.** Conceptually, however, the distinction is not without its flaws, as no treaty is either fully top-down or bottom-up.

- **The choice between a top-down and bottom-up treaty is not a matter of choosing between two distinct models.** All treaties have both top-down and bottom-up elements, but some treaties lean more towards a bottom-up approach than others. This means that, to a large extent, bottom-up treaties allow each State party to make their own decision regarding what to do or achieve (specificity) and whether to achieve it (bindingness), once the treaty has entered into force. As such, the choice between a top-down or a bottom-up approach is primarily a question of the design of the treaty's core provisions.

- **The choice between a top-down and a bottom-up treaty on plastic pollution depends, to some extent, on how the problem of plastic pollution is framed and conceptualized.** International discussions about plastic pollution reflect several, potentially conflicting understandings of the core features of the scope and structure of the problem. On the one hand, plastic pollution is understood to be a complex and systemic problem relating to plastic as a material, which encompasses a wide range of interrelated drivers and sources. From this perspective, sustainable

production and consumption in a fully circular plastics economy is considered to be the only viable long-term solution. On the other hand, plastic pollution is understood primarily as a problem relating to pollution, with a more narrowly defined scope. From this perspective, regulations targeting certain types of high-risk plastic products—such as single-use plastics, fishing-related items and microplastics—should be prioritized. Both framings have significant implications for the political dynamics, the design and ultimately the effectiveness of the new treaty on plastic pollution.

- **The problem of plastic pollution has characteristics that merit the consideration of both bottom-up and top-down approaches to treaty-making.** On the one hand, there is relatively little scientific dispute about the severity of the problem and there are obvious transboundary aspects. Moreover, targeted measures to tackle the most leakage-prone product categories have already been put in place in jurisdictions across the world. All of this strengthens the case for a treaty with specific and binding core provisions. On the other hand, however, the causes and effects of plastic pollution may, to some extent, vary from country to country, which could lead to the conclusion that a bottom-up treaty is the most viable option.

- **From the perspective of regime effectiveness, the great advantage of a bottom-up treaty on plastic pollution is that it would likely attract broad participation.** Since the measures and regulatory interventions aimed at tackling the problem would be determined at the national level once the treaty has been adopted, garnering support from a critical mass of states for such a treaty would be relatively straightforward. However, the absence of a common set of policies and control measures would likely complicate national policy processes (e.g. through increased leverage for domestic veto players), limit opportunities for economies of scale, complicate efforts to monitor, verify and enforce compliance with the treaty, and make it more difficult to strengthen commitments over time.

- **The great advantage of a plastic pollution treaty with specific and binding core provisions is that it would make it clearer what parties will be required to do**, or refrain from doing. This could help reduce the perceived complexity of the issue, improve cost-efficiency, create a level playing field for business and foster innovation. It would also facilitate efforts to monitor, verify and enforce compliance with the treaty's provisions, while providing a common currency for the strengthening of commitments over time. Crucially, increased clarity around the requirements of the treaty could strengthen developing countries' case for technical and financial assistance to implement their obligations.

- **As the first INC convenes in Uruguay at the end of November 2022**, negotiators should differentiate between the aspects of the problem of plastic pollution that may be addressed through a set of specific and binding core provisions, and the aspects of the problem that may be best left for governments to solve at the national level after the treaty has been adopted. In so doing, negotiators should be particularly mindful of the strengths and weaknesses of a bottom-up approach: Stripping the treaty of any specific and binding core provisions, in the hope of securing broad participation, is not necessarily a secret to long-term success.

1.

A new treaty in the making

1.1 The starting point

On 2 March 2022, the United Nations Environment Assembly (UNEA) agreed to establish an Intergovernmental Negotiating Committee (INC) with a mandate to develop an international legally binding instrument on plastic pollution, including in the marine environment.[1] The decision—labelled "historic",[2] and a "watershed moment"[3] in the international community's efforts to tackle the environmental, social and economic costs of plastic pollution—marks the starting point of an intergovernmental negotiating process that is envisaged to conclude by the end of 2024 (see Figure 1).[4]

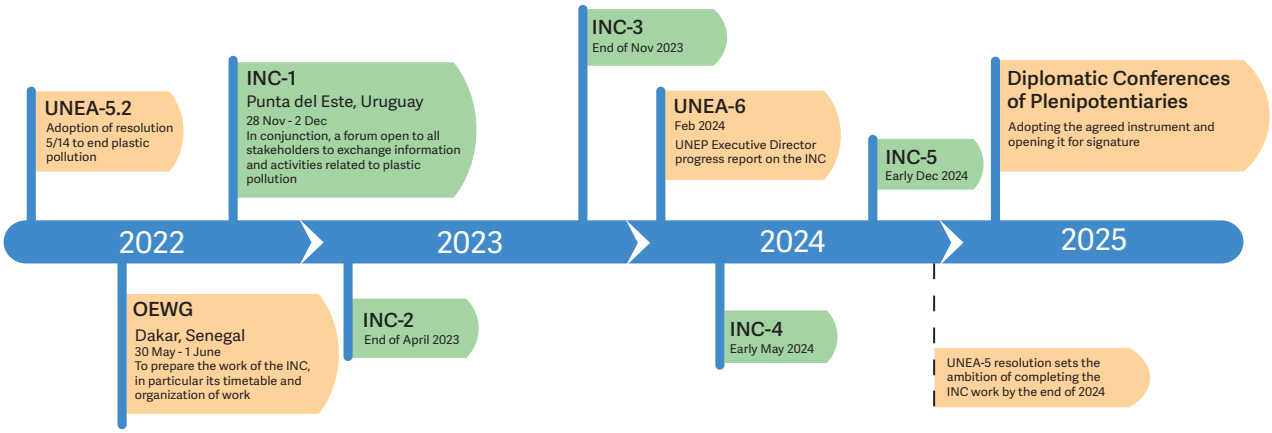
1 Resolution UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", notably preambular paragraphs 1 and 3. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/39764/END%20PLASTIC%20POLLUTION%20-%20TOWARDS%20AN%20INTERNATIONAL%20LEGALLY%20BINDING%20INSTRUMENT%20-%20English.pdf?sequence=1&isAllowed=y. For stakeholder perspectives on the decision, see UNEP press release, UN news story, European Commission press release, Ministry for the Environment of New Zealand news story, WWF press release, IISD news story, Ellen MacArthur Foundation news story. For reporting on the negotiations on the resolution, see Earth Negotiations Bulletin meeting coverage.

2 UNEP press release. Available at: https://www.unep.org/news-and-stories/press-release/historic-day-campaign-beat-plastic-pollution-nations-commit-develop. Accessed on 17 October 2022.

3 WWF press release. Available at: https://wwf.panda.org/wwf_news/?5215966/WWF-commends-UN-Environment-Assemblys-watershed-decision-to-start-negotiations-for-a-global-plastics-treaty. Accessed on 17 October 2022.

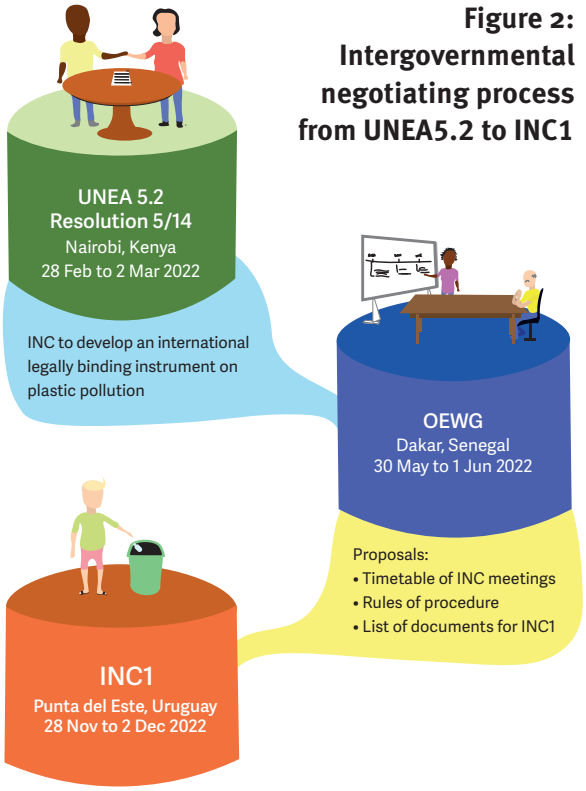
4 Resolution UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", notably operative paragraph 1.

Figure 1: From UNEA-5.2 to a treaty to end plastic pollution



From 30 May until 1 June 2022, United Nations Member States met in an open-ended working group (OEWG) in Dakar, Senegal, to prepare for the work of the INC.[5] The meeting covered discussions on the timetable and organization of work for the INC, including "draft elements and proposed options to structure for the international legally binding instrument on plastic pollution", as well as the INC's draft rules of procedure.[6] The meeting, chaired by Mr. Ndiaye Cheikh Sylla, Director of Ministerial Cabinet for Environment and Sustainable Development, Senegal, concluded by recommending that the INC meet in a total of five week-long sessions between November 2022 and early December 2024.[7] The meeting also prepared draft rules of procedure for the INC, based on the rules of procedure of previous environmental INCs (Figure 2).[8]

Figure 2: Intergovernmental negotiating process from UNEA5.2 to INC1



5 Meeting documents from the Ad hoc open-ended working group (OEWG) to prepare for the intergovernmental negotiating committee on plastic pollution are available at: https://www.unep.org/events/unep-event/Intergovernmental-Negotiating-Committee-end-plastic-pollution.

6 UNEP/PP/OEWG.1./1/Add.1, "Annotated provisional agenda", notably item 4. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/40028/Annotated%20Provisional%20Agenda-English.pdf?sequence=3&isAllowed=y

7 UNEP, Final Outcome Summary: 1 June 2022. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/39774/Outcome%20Summary.pdf?sequence=18&isAllowed=y

8 UNEP/PP/OEWG.1/4, "Draft rules of procedure for the work of the intergovernmental negotiating committee to end plastic pollution, including in the marine environment". Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/40029/Draft%20Rules%20of%20Procedure-English.pdf?sequence=3&isAllowed=y. The proposed rules of procedure for the INC are largely based on the ones used for the negotiation of the Minamata Convention on Mercury. Note that the draft rules of procedure stipulate that while the INC "shall make every effort to reach agreement on all matters of substance by consensus", it may, as a last resort, adopt its decisions "by a two-thirds majority of the representatives of Members who are present and voting".

The OEWG did not, however, make much progress on the "draft elements" or "proposed structure" of the new treaty, apart from reiterating the elements outlined in the negotiation mandate.[9] It was recommended, however, to prepare a series of documents ahead of the first INC, including documents outlining a "glossary of key terms", "broad options for the structure of the instrument" and "potential elements", as well as "standard articles on final provisions" and "stakeholder engagement frameworks" from other multilateral environmental instruments.[10]

1.2 An emerging fault line

At this time, it remains unclear what kind of instrument United Nations Member States will start to elaborate when the first INC convenes on 28 November 2022. The lack of clarity around the "elements" and the "structure" of the new treaty seems to reflect a deeper difference of opinion with regard to the preferred model for multilateral environmental governance. In the discussion during the OEWG, it became clear that several States favour what may be referred to as a bottom-up treaty on plastic pollution. The United States, for instance, stressed that there is "no one-size-fits-all" solution to plastic pollution and that the new treaty "should require parties to contribute to a common objective through ambitious national action plans reflecting country-driven approaches".[11] In a similar vein, Saudi Arabia stated, on behalf of the Asia-Pacific group, that the new treaty should take inspiration from the Paris Agreement on climate change; a consensus-driven treaty developed and implemented "through a bottom-up approach".[12]

However, other States appear to favour a treaty with more top-down elements. Switzerland, for example, expressed support at the OEWG for a treaty with "clear obligations and specific measures".[13] In a written submission, Switzerland specified that a negotiating group on "control measures/obligations", including "prohibitions/phasing out of certain types of substances and products" and "product requirements and design standards" should be established.[14] Similarly, Norway suggested that the new treaty should contain a set of "control measures".[15] Rwanda argued that it should be possible to strengthen such control measures over time without the need for additional ratification.[16]

9 UNEP/PP/OEWG/1/3, "Approaches to the work of the intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment", notably part III. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG_PP_1_3_timetable_org%20of%20work%205%20May.pdf?sequence=9&isAllowed=y.

10 UNEP, Final Outcome Summary: 1 June 2022. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/39774/Outcome%20Summary.pdf?sequence=18&isAllowed=y

11 Statement by the United States to the ad hoc OEWG to prepare for the intergovernmental negotiating committee on plastic pollution, delivered on 30 May 2022. Available at: https://apps1.unep.org/resolution/uploads/united_states_of_america_0.pdf#overlay-context=node/344/revisions/11015/view%3Fq%3Dnode/344/revisions/11015/view. Brazil expressed a similar sentiment, that there is no "one-size-fits-all" solution to the problem of plastic pollution.

12 Statement by Saudi Arabia, on behalf of the Asia-Pacific Group, to the ad hoc OEWG to prepare for the intergovernmental negotiating committee on plastic pollution, delivered on 30 May 2022. Available at: https://apps1.unep.org/resolution/uploads/asia_and_the_pacific_.pdf#overlay-context=node/344/revisions/10991/view%3Fq%3Dnode/344/revisions/10991/view. The statement generated some controversy, as several members of the regional group indicated that they did not agree with its content.

13 Statement by Switzerland to the ad hoc OEWG to prepare for the intergovernmental negotiating committee on plastic pollution, delivered on 30 May 2022. Available at: https://apps1.unep.org/resolution/uploads/switzerland_0.pdf#overlay-context=node/344/revisions/11012/view%3Fq%3Dnode/344/revisions/11012/view

14 Written submission from Switzerland to the first INC, 14 July 2022. Available at: https://apps1.unep.org/resolutions/uploads/switzerland_1.pdf

15 Statement by Norway to the ad hoc OEWG to prepare for the intergovernmental negotiating committee on plastic pollution, delivered on 30 May 2022. Available at: https://apps1.unep.org/resolution/uploads/norway_national_statement_30_may_oewg.pdf#overlay-context=node/344/revisions/10994/view%3Fq%3Dnode/344/revisions/10994/view

16 Based on third-party meeting notes. Rwanda's statement was not submitted in writing.

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In August 2022, at the launch of the High Ambition Coalition to End Plastic Pollution—a cross-regional group of countries established to raise the level of ambition in the upcoming negotiations—the Norwegian and Rwandan co-chairs underscored the need for "a truly effective global treaty that will establish common rules".[17] The European Union (EU) has also suggested that the new treaty may include a set of common rules and standards, notably "provisions such as ban, phase out and reduction of certain types of plastic products, additives, harmful substances as well as intentionally added microplastics."[18] Meanwhile, the World Wide Fund for Nature (WWF), a leading NGO supporting the calls for a new treaty, has recommended that the treaty "specify, through clear and universally applicable rules, what each State party will be required to do to tackle the problem" according to "a common standard of action".[19]

17 High Ambition Coalition to End Plastic Pollution, "Press Release: Countries aim to end plastic pollution by 2040", 22 August 2022. Available at: http://hactoendplasticpollution.org/news/.

18 Submission by the EU and its Member States to the ad-hoc open-ended working group (OEWG), 10 June 2022, footnote 2. Available at: https://apps1.unep.org/resolutions/uploads/eums_written_submission_inc_organization_of_work.pdf#overlay-context=node/344%3Fq%3Dnode/344

19 WWF, "Success criteria for a new treaty on plastic pollution", 2021. Available at: https://media.wwf.no/assets/attachments/SUCCESS-CRITERIA-for-a-new-treaty-on-plastic-pollution-FINAL-DRAFT-30-AUG-2021-WEB-medium-res.pdf. Other NGOs have expressed similar views. In its submission to the first INC, The Environmental Investigation Agency (EIA) suggests inter alia that the new treaty should include provisions to freeze and phase down the production and consumption of a set of controlled substances. See EIA, "Convention on plastic pollution—Essential Elements: Virgin Plastic Production and Consumption", 2022. Available at: https://apps1.unep.org/resolutions/uploads/essential_elements_-_production_and_consumption.pdf

The negotiation mandate adopted on 2 March 2022, which serves as the key guidance document for the negotiators, does not provide any clear indication about whether the new treaty should follow a bottom-up or a top-down approach. On the one hand, the mandate stipulates that the treaty will include provisions "to develop, implement and update national action plans reflecting country-driven approaches".[20] This may suggest a bottom-up treaty, in which actions and activities will be determined nationally, and then subsequently reported on and reviewed at meetings of States parties. On the other hand, the mandate also specifies that the instrument "could include both binding and voluntary approaches",[21] and that the INC is to consider "obligations, measures and voluntary approaches in supporting the achievements of the objectives of the instrument".[22] While this language does not explicitly stipulate that the new treaty must contain a set of common measures applicable to all parties or what these control measures may look like,[23] the inclusion of terms such as "binding [...] approaches", "obligations" and "measures" as distinct from "voluntary approaches" suggests that it is not out of the question for the INC to consider elaborating a common set of control measures (top-down). Moreover, in the development of the negotiating mandate, many States stressed the need for the new treaty on plastic pollution to be "legally binding".[24] The emphasis on the binding force of the new treaty also suggests that many States favour a top-down treaty that commits its parties to a common set of legally binding obligations.

The idea of a bottom-up treaty that provides a loose multilateral framework for countries to communicate their national level policies, versus a top-down treaty that stipulates a common set of policies for all States parties, looks likely to become a major fault line in the upcoming negotiations for a treaty on plastic pollution.[25] The question is, should the new treaty require all parties to adopt and implement a common set of control measures? Or should the new treaty take the form of a framework for parties to implement nationally determined control measures after the treaty has been adopted?

20 UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", operative paragraph 3(d).
21 Ibid., operative paragraph 3.
22 Ibid., 4(a).
23 This is not surprising. Negotiation mandates rarely specify policies. While none of the negotiation mandates for the multilateral environment agreements reviewed in this report specified the policies to be considered in the negotiations, the negotiation mandates of the Minamata Convention and the Stockholm Convention were significantly more specific in terms of policies and control measures than the negotiation mandate for the new treaty on plastic pollution. The mandate for the Minamata Convention (UNEP Governing Council decision 25/5, as contained in UNEP/GC.25/17, pp. 20–23. Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/10623/K0950890%20GC-25-17-Proceedings-FINAL.pdf) stipulated that negotiators would consider provisions inter alia to "reduce the supply of" and to "reduce the demand for" mercury. Similarly, the mandate for the Stockholm Convention (UNEP Governing Council decision 19/13, as contained in UNEP/GC.19/34, pp. 72–79. Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/17274/97_GC19_proceedings.pdf) requested the Executive Director of the UN Environment Programme to prepare for and convene an INC with a mandate to "prepare an international legally binding instrument for implementing international action" and suggested that such international action should include "measures which will reduce and/or eliminate [...] the emissions and discharges of the twelve persistent organic pollutants specified in Governing Council decision 18/32 and, where appropriate, eliminate production and subsequently the remaining use of those persistent organic pollutants that are intentionally produced". Moreover, the mandate for the Stockholm Convention noted that international action should include voluntary measures but specified that these would be implemented as a "complement to, or independently of, a legally binding instrument" (operative paragraph 6(b)).
24 For an overview of official government positions in the leadup to the adoption of the negotiation mandate, see https://plasticnavigator.wwf.de/.
25 On 27 September 2022, Reuters reported that the United States, in response to the establishment of the High Ambition Coalition to End Plastic Pollution, "is seeking to form its own group with a different approach". Reuters claims to have seen a concept note for the group, which emphasizes, inter alia, "the development of national action plans" as "the primary mechanism" for the new treaty. News story available here: https://www.reuters.com/world/exclusive-us-seeks-allies-split-emerges-over-global-plastics-pollution-treaty-2022-09-27/ (accessed 30 September 2022)

1.3 Purpose and structure of this report

This report seeks to unpack the distinction between a bottom-up and top-down approach to treaty-making. First, the report introduces the key determinants of what makes a treaty an effective tool for addressing transboundary cooperation problems on a global scale, notably the framing of the problem structure, on the one hand, and the problem-solving ability of the treaty set up to deal with the problem, on the other. Second, by drawing on examples from existing international agreements, the report argues that the distinction between a bottom-up and a top-down treaty is not binary, but a question of degrees. Specifically, the report shows that the distinction relates to two aspects of a treaty's core provisions, namely its level of specificity and bindingness. Finally, the report argues that a top-down plastic pollution treaty containing core provisions with specific and binding global rules and standards will likely address the problem of plastic pollution more effectively than a bottom-up treaty based solely on country-driven approaches. However, the feasibility and success of a top-down treaty will depend on the ability of its proponents to identify specific, cost-efficient, and enforceable control measures, and convince a critical mass of States of the benefits of introducing these measures as common global rules.

2.

What would make the new treaty effective?

States and other stakeholders involved in the INC may have several reasons for preferring either a top-down or bottom-up treaty on plastic pollution. One the one hand, uncertainty surrounding how to regulate plastic pollution, concerns about the lack of viable alternatives to the products or activities targeted for regulation, the expected economic costs of the proposed measures, national differences and/or a desire for flexibility in national policy-making, may lead negotiators to opt for a bottom-up approach to treaty-making. On the other hand, concerns about the overall credibility of the treaty as a partial or full solution to the problem of plastic pollution, a desire for legal egalitarianism, in which rules apply equally to parties, and/or a perceived need to level the playing field and not give some parties an unfair advantage,[26] may lead negotiators to opt for a top-down approach to the negotiation of the new treaty. This report considers this question from the perspective of regime effectiveness: Is a bottom-up treaty likely to be more effective than a top-down treaty in terms of addressing the problem of plastic pollution?

Over the past decades, scholars have studied the effectiveness of international treaties. Why is it that some multilateral environmental agreements (MEAs) seem to be able to provide sustainable, long-term solutions to international problems, while others appear to have little effect? While the secrets to

26 For an analysis of the benefits of a new treaty from a business perspective, see WWF, "The Business Case for a UN Treaty on Plastic Pollution", October 2020. Available at: https://lp.panda.org/plastic-pollution-report

What is regime effectiveness?

Regime effectiveness can be conceptualized in many ways. For example, effectiveness may be understood as the extent to which a multilateral agreement contributes to a fair and equitable distribution of costs and benefits for the parties involved in its development and implementation. In the academic study of regime effectiveness, the focus has mostly been on the ability of international agreements to solve the problems that they are designed to address.

success of multilateral treaties continue to be a matter of debate, research into past treaty-making and treaty-implementation efforts have produced findings that are relevant to negotiating a treaty on plastic pollution. To explain and anticipate the effectiveness of a particular multilateral agreement, regime effectiveness theory normally highlights two key factors: First, and most importantly, the effectiveness of an agreement is a function of the structure and framing of the problem that the agreement seeks to address. Second, an agreement's effectiveness is a function of the problem-solving ability of the treaty itself, including the design of the legal instrument.[27]

2.1 The problem of plastic pollution

In the academic literature on regime effectiveness, the structure of a given transboundary problem is often analysed along two dimensions: an intellectual dimension, which captures the relative difficulty of dealing with the problem from a technical, administrative, scientific, and/or financial point of view; and a political dimension, which deals with the configuration of interests and preferences amongst the States involved in the development and implementation of the multilateral agreement (see Figure 3).

In the phases leading up to the adoption of a particular multilateral agreement, the manner in which a problem is understood and described is itself a matter of political debate. Indeed, the international discussions that took place in the run-up to the adoption of the mandate for negotiations on a new treaty on plastic pollution, reflected several, potentially conflicting understandings of the core features of the problem's structure, even if there is broad agreement on the severity of the problem and its main sources and pathways.

In terms of the problem's severity and impact, States appear to agree that "the high and rapidly increasing levels of plastic pollution", including microplastics, negatively affects "the environmental, social and economic dimensions of sustainable development" and is to the "detriment [of] ecosystems and human activities dependent on them".[28] Moreover, in terms of the problem's scope, States appear to perceive plastic pollution as both a domestic and a transboundary problem. The explicit recognition in the negotiation mandate that "plastic pollution, in marine and other environments , can be of a transboundary nature" indicates that States agree that at least some parts of the problem can only be effectively solved through international cooperation.[29]

Moreover, the process leading up to the adoption of the negotiation mandate in March reveals an emerging intergovernmental consensus regarding the drivers and causes behind plastic pollution. The negotiation mandate's emphasis on the need for a "life cycle approach" to end plastic pollution, suggests that the drivers of

27 Underdal (2002), "One Question, Two Answers", Chapter 1 in Miles et al. Environmental Regime Effectiveness: Confronting Theory with Evidence, the MIT Press, Cambridge, Massachusetts, pp. 3–45
28 UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", preamble.
29 Ibid.

the problem are to be found upstream and downstream along the entire value-chain: from extraction of raw materials, design and production, packaging, and distribution, use and maintenance of plastics, to disposal, incineration and landfilling of plastic waste. The perceived need for a "life cycle approach" appears to be closely linked with a conceptualization of plastic pollution as a "systemic problem", with a complex web of interrelated problem drivers.

Informed by an understanding of plastic pollution as a "by-product of fundamental flaws in an essentially linear plastic system", the 2020 report Breaking the Plastic Wave: A comprehensive assessment towards stopping ocean plastic pollution, for example, identifies the need for a "system change" to plastic pollution, defined as:

> *Massive shifts in the business models of firms creating plastics and their substitutes, large changes in purchasing behaviour and business delivery models of consumer goods companies that utilize plastic as an input to the services and products they provide, significant changes to the recycling and waste disposal industries, and changes in the behaviour of consumers.*[30]

Such a scenario would require that "all system interventions are applied concurrently, ambitiously and immediately".[31] From this perspective, plastic pollution appears to be a problem with relatively high level of regulatory complexity (Figure 3).[32]

However, it is also possible to conceptualize or frame the issue more narrowly as a pollution problem, which makes it more comparable to the problems addressed in existing treaties such as the Minamata Convention and the Stockholm Convention, or even the Montreal Protocol. With this framing, the scope of plastic pollution would be delineated more clearly, mainly relating to certain types of particularly problematic plastic products, polymers and materials. The intergovernmental process leading to the adoption of the negotiation mandate for a new treaty on plastic pollution also reflects this type of pollution-oriented understanding of the problem. UNEA resolution 2/11, for instance, notes that "plastics in the marine environment degrade extremely slowly [and] contain and can absorb and emit chemicals, such as persistent organic pollutants, and can contribute to the distribution and the spread of harmful organisms."[33] The focus, in this respect, on the particularly harmful properties of plastics as a pollutant, or on specific categories of plastics, notably single-use plastics, ghost gear and microplastics, tends to reinforce a framing of plastic pollution as a tangible "pollution problem". From this perspective, plastic pollution appears as a significantly less intellectually complex, or more benign problem, in which the regulatory complexity is comparatively lower (Figure 3).

An understanding of plastic pollution as a systemic problem driven by multiple, interrelated factors is not necessarily incompatible with an understanding of plastic pollution as a more narrowly defined pollution problem. However, when developing a treaty to address plastic pollution, it matters a great deal which of these problem understandings are chosen as the primary starting point for discussion. As indicated, a framing of plastic pollution

30 PEW/SYSTEMIQ, "Breaking the plastic wave: A comprehensive assessment of pathways towards stopping ocean plastic pollution" (2015), p. 106. Available at: https://www.systemiq.earth/wp-content/uploads/2020/07/BreakingThePlasticWave_MainReport.pdf

31 Ibid., p. 139.

32 In terms of intellectual traits, a benign issue area is one in which there is scientific consensus about i) causes and effects, ii) about the severity of the problem, and iii) where there are relatively straightforward (uncomplicated/quick fix) solutions.

33 UNEP/EA.2/Res.11, "Marine plastic litter and microplastics" (2016), preambular para 5. Available at: https://unea.marinelitter.no/wp-content/uploads/2019/11/UNEA-2.pdf

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as a systemic problem suggests the need for a comprehensive "system change" approach, in which all aspects of the plastics value chain are addressed "concurrently, ambitiously, and immediately".[34] Such a framing makes it pertinent to compare plastic pollution with other highly complex international problems, such as climate change and biodiversity loss, and take inspiration from the regimes set up to address these issues. A framing of plastic pollution as a pollution problem, on the other hand, leads more immediately to a consideration of why certain categories of plastic products, materials and polymers are particularly problematic, and, on this basis, how measures to address these categories could be sequenced and prioritized. Naturally, this framing increases the relevance—in terms of inspiration and precedent—of treaties regulating other types of pollution, including the Montreal Protocol, the Minamata Convention, and the Stockholm Convention.

States involved in the development and implementation of a multilateral agreement will often promote problem framings that reflect their own interests and preferences. Moreover, since the problem framing is itself a matter of political debate, it is often difficult to present a clear view of the exact configuration of States' individual interests and preferences.

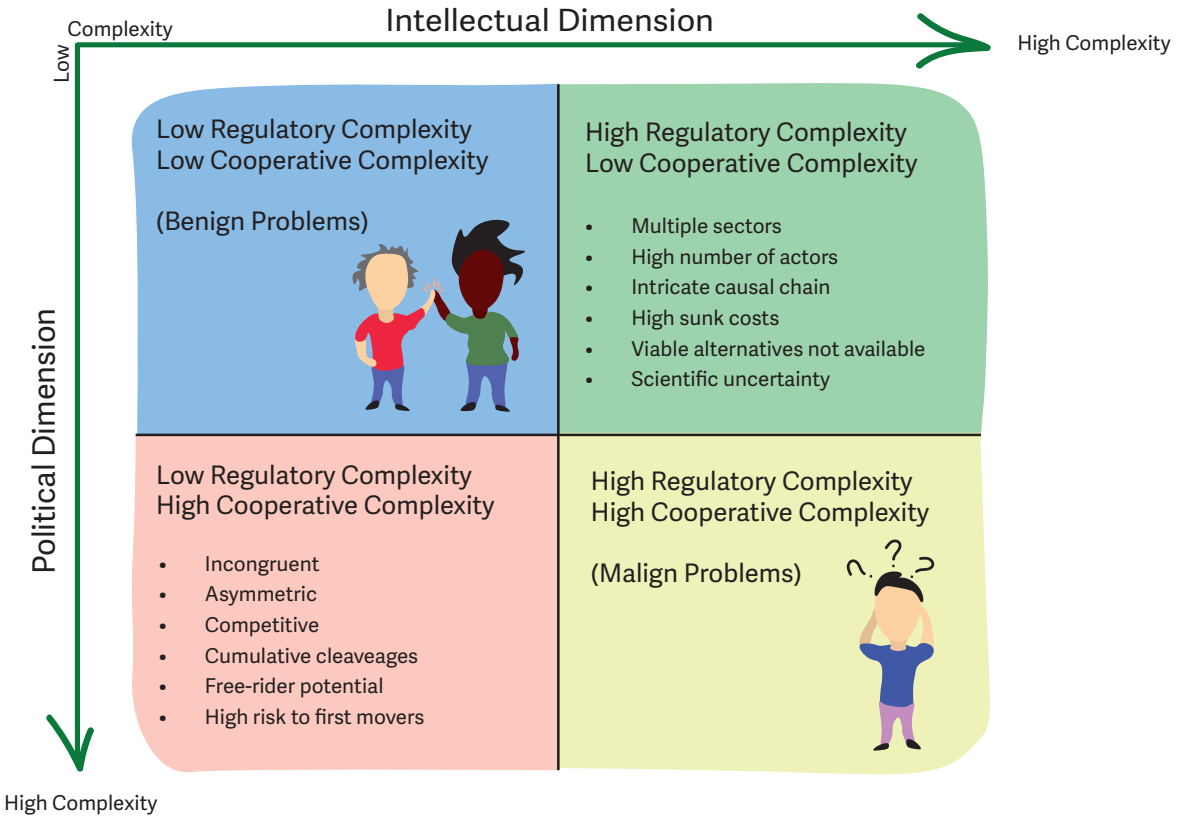
In general, however, systemic problem framings will have a higher chance of generating initial alignment of States' interests and preferences than more specific articulations of the problem. This may be part of the reason why a view of plastic pollution as a "comprehensive" or "systemic" problem has gradually taken hold in intergovernmental discussions on the issue. A desire, in particular, to adopt the negotiation mandate by consensus at the UNEA in March 2022, seems to have led to negotiators to accept a broad and relatively non-specific problem framing based on the need for a "life cycle approach" to end plastic pollution. As this

34 PEW/SYSTEMIQ, "Breaking the plastic wave: A comprehensive assessment of pathways towards stopping ocean plastic pollution" (2015), p. 139. Available at: https://www.systemiq.earth/wp-content/uploads/2020/07/BreakingThePlasticWave_MainReport.pdf

problem framing does not explicitly specify whether, and how, particular countries and industries will be required to change their behaviour as a result of the new treaty, no country had an issue-specific reason to reject the adoption of the negotiation mandate. In terms of regime effectiveness, therefore, a "comprehensive" and non-specific problem framing of plastic pollution is likely to produce a more politically benign problem structure with lower initial levels of cooperative complexity (Figure 3).[35]

In contrast, a more tangible and specific framing of the issue as a pollution problem may lead to more pronounced differences in States' interests and preferences. Because such a problem framing entails a consideration of certain types of high-risk plastic products, materials and polymers, it becomes much clearer how particular countries and industries may be affected by the measures required to address these items. This is especially the case if the proposed measures will have a significant negative economic impact on some countries and industries and alternatives to these materials and products are not readily available. In terms of regime effectiveness, a more tangible and specific problem framing of plastic pollution may therefore produce a more politically malign problem structure, with higher initial levels of cooperative complexity (Figure 3).[36]

Figure 3: Two dimensions of problem structure[37]



35 In a politically "benign" problem structure, the States share identical preferences and interests. In these kinds of situations, the effect of a multilateral agreement will rely on its ability to coordinate intergovernmental action.

36 In a politically "malign" problem structure, there are strong differences in States' preferences and interests. In these kinds of situations, the effect of a multilateral agreement will rely on its ability to change States' preferences and interests. This can at times be a tall order, especially if there is asymmetry, competition, and cumulative conflicts involved

37 Adapted from Hugo, T. G., Andresen, S., (2021). "Towards a New Treaty on Plastic Pollution: Assessing the Relevance of the EU Directive on Single-Use Plastics." WWF-Norway/Fridtjof Nansen Institute. Available at: https://media.wwf.no/assets/attachments/Assessing-the-relevance-of-the-EU-directive-on-single-use-plastics.pdf.

2.2 The problem-solving ability of the new treaty

In the academic field of regime effectiveness, the problem-solving ability of a given treaty is essentially a question of whether the international community is capable of mounting a meaningful response to the issue at hand. It can be understood as a function of power and leadership on the one hand, and rules and institutional design on the other.

Generating critical mass

Power is an important factor in explaining the effectiveness of the international community's efforts to respond to common problems. The prospects for tackling mercury pollution, for instance, would have been much bleaker if the United States and China had not supported the development of the Minamata Convention on Mercury. For regime-effectiveness purposes, however, power is not simply a question of population size, or financial and military might. Issue-specific relevance can be equally significant. For plastic pollution, South-East Asia is considered to be a particularly relevant region due to the amounts of plastic consumed and estimated leakage rates. Countries that produce and export large amounts of high-risk plastic products may also play a disproportionately large role in determining the outcome of the collective efforts.

Second, power is also closely linked to leadership, and in the world of multilateral diplomacy, leadership tends to revolve around an ability to mobilize support among States.

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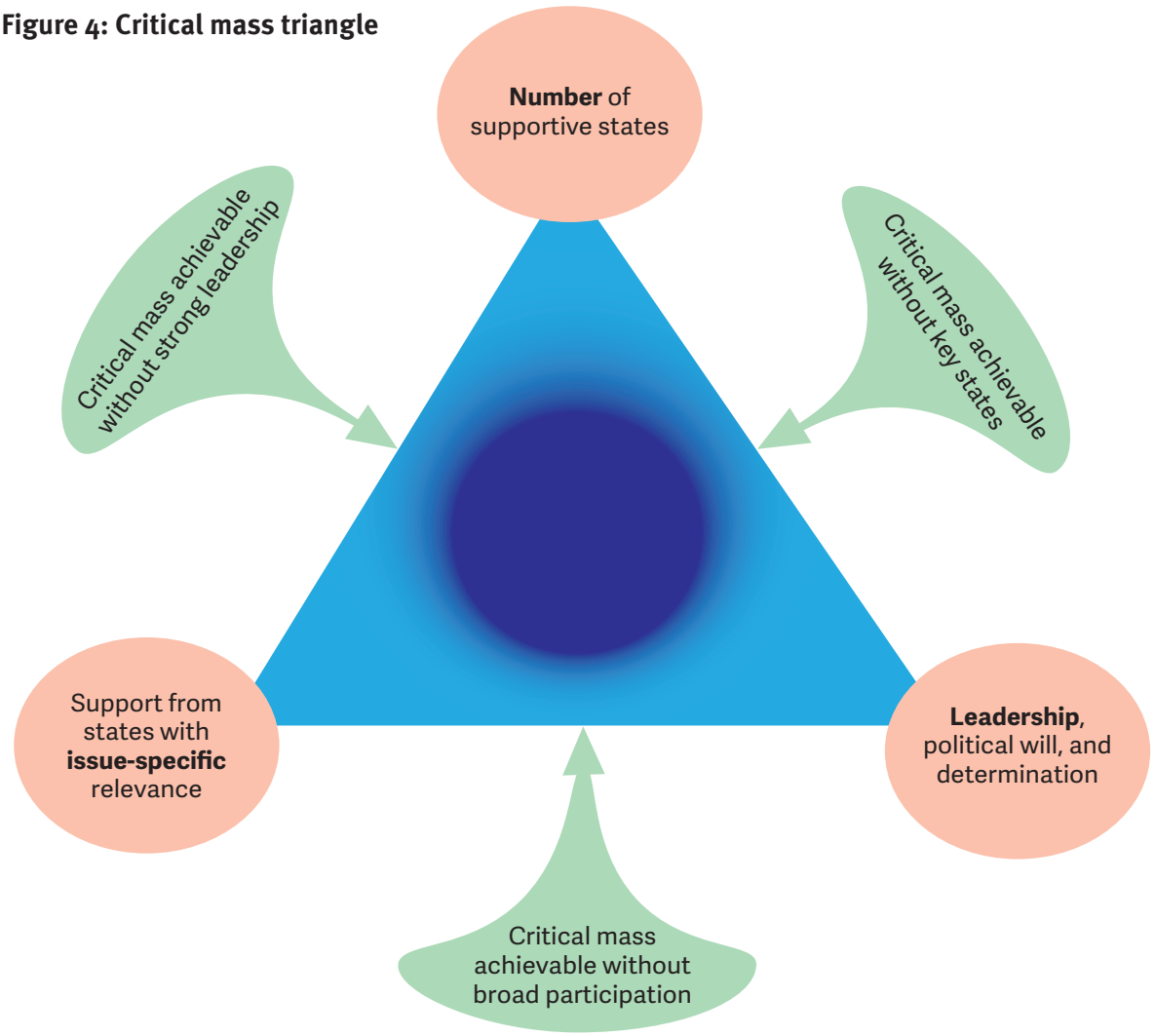
In the words of Hannah Arendt, "[p]ower corresponds to the human ability not just to act but to act in concert",[38] and in the past, relatively small groups of relatively small States have often been able to mobilize a critical mass of States to speak and act in a coordinated manner.

Finally, numbers also matter in multilateral treaty-making. A decision to begin negotiations on a new international convention can be taken by a simple majority of the United Nations General Assembly (97 of the 193 Member States), regardless of their size. In this context, the vote of a small country such as Kiribati is worth just as much as the vote of a large country such as India. Moreover, most existing MEAs have been negotiated with decision-making rules that provide for majority decision-making, where each State party has one vote.[39]

It is worth noting that none of these factors—issue-specific relevance, leadership and numbers—are strictly necessary. It is possible to establish relatively effective treaties even if one of the three factors is missing. If all states, including those with issue-specific

Figure 4: Critical mass triangle



38 Arendt, H (1969), On Violence, London: Harvest/HBJ Book, p. 44. Available at: https://grattoncourses.files.wordpress.com/2019/12/hannah-arendt-on-violence-harcourt-brace-jovanovich-1969.pdf

39 There are some examples of regimes where majority decisions require also have to meet a certain substantive threshold. The Montreal Protocol, for instance, requires a two-thirds majority for adjusting phase-out schedules, but that majority must also represent at least fifty per cent of the total consumption of the controlled substances (Montreal Protocol, Article 2(9)(c))

relevance, agree on certain course of action, leadership is less important. Similarly, if leadership and issue-specific relevance is combined, a lot can be achieved even in the absence of a large number of States.[40] And if good leadership is combined with a large number of States, it is also possible to achieve a critical mass of support even if major powers, or countries with issue-specific relevance, decide not to participate (Figure 4).

Rules and institutional design

The ability of a given treaty to respond effectively to a global problem also depends on the manner in which it is designed—that is, the form and substantive content of the treaty itself, and the institutional structures it creates. As further elaborated below, the design of a treaty may be broken down into two key elements: (i) the specificity and bindingness of commitments contained in the treaty's core provisions, as well as the options for strengthening commitments over time;[41] and (ii) the extent to which a treaty includes effective mechanisms for compliance and participation.

40 The UN Charter is one example of this, having been discussed and agreed first between the major powers (USA, Soviet Union, China). The Nuclear Non-proliferation Treaty (NPT) is another example.

41 See, for instance, Daniel Bodansky (2015), "Legally binding versus non-legally binding instruments", Chapter 11 in Scott Barrett, Carlo Carraro and Jaime de Melo (eds.), Towards a Workable and Effective Climate Regime, CEPR Press. Available at: https://voxeu.org/content/towards-workable-and-effective-climate-regime.

3.

Top-down and bottom-up

The distinction between top-down and bottom-up is a recurring issue in discussions about multilateral treaty making, including in discussions about multilateral governance of climate change.[42] Simply put, "top-down" indicates that rules are adopted at the global level and then implemented at the national level, while "bottom-up" indicates that laws and policies are developed at the national level and then typically reported to the global level. Conceptually, however, the distinction is not without its flaws, as no treaty is either fully top-down or bottom-up.

The purpose of developing an international agreement is, at the very least, to forge a collective understanding of an issue of transboundary concern.[43] All treaties will therefore have some top-down characteristics. In many cases, moreover, the collective understanding informing the development of the treaty will be translated into a shared objective, which is sometimes explicitly articulated. Most multilateral agreements also establish a set of common institutional structures, such as a review body (Conferences of the Parties), a secretariat and, quite often, mechanisms for providing technical and financial support. In this sense, all treaties contain top-down elements.

42 See for instance Andresen, S (2015), "International climate negotiations: Top-down, bottom-up or a combination?", The International Spectator: Italian Journal of International Affairs, Vol 50, No 1, pp. 15-30.

43 GRID Arendal, "Exploring the Option of a New Global Agreement on Marine Plastic Pollution – A Guide to the Issues", May 2021. Available at: https://www.grida.no/publications/539

Similarly, all treaties feature certain bottom-up elements. They allow for some discretion in the interpretation of its substantive content, as a minimum. Hence, the question of whether to pursue a top-down or a bottom-up treaty on plastic pollution is not really a question of choosing between one of the two archetypes, but rather of finding a balance between common rules and nationally determined actions. And that balance is usually struck in the design of the treaty's core provisions.

3.1 A question of core provisions

The negotiation mandate for the plastic pollution treaty stipulates that the new instrument will contain, *inter alia*, a set of objectives, a mechanism for the development, implementation and updating of national action plans, a reporting mechanism, subsidiary bodies assessing the progress of implementation and effectiveness, and a mechanism to provide technical and financial support.[44] While these elements are likely to be subject to significant debate during the negotiations, there seems to be little doubt that the supporting provisions, institutional arrangements, and final clauses of the new treaty should be developed top-down at the multilateral level.

Categories of treaty provisions[45]

Core provisions: The acts, policies and/or laws that a treaty may authorize or require its parties to undertake or refrain from, to directly address the issue of concern.

Supporting provisions: May include rules about reporting, implementation (national action plans), monitoring, transparency, domestic incorporation/transposition and enforcement, as well as technical and financial cooperation. May also include a common objective.

Institutional arrangements: May stipulate the establishment of a review body (Conference of the Parties) and subsidiary bodies, a secretariat or an organization, and/or a financing mechanism.

Final clauses: May include rules about the depositary, signature and ratification, participation, reservations, declarations, notifications, entry into force, registration and publication, settlement of disputes, amendment, revision and modification, duration, suspension, withdrawal and/or termination.

In efforts to negotiate multilateral agreements, the most important and often most politically sensitive issues concern the actions, activities, or practices that the treaty should seek to regulate—that is, the treaty's core provisions. For some treaties, this question may be determined, at least to some extent, before the negotiations begin. For example, the negotiation mandate for the Arms Trade Treaty (ATT) stipulated that a conference should be convened "to elaborate a legally binding instrument on the highest possible common international standards for the transfer of conventional arms."[46]

In other treaty negotiations, it is initially much less clear exactly what the proposed treaty is expected to require or authorize. For example, the recently adopted mandate to "draft and negotiate a WHO convention, agreement or other international instrument on pandemic prevention, preparedness and response",[47]

44 These elements are mentioned in UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", notably operative paragraphs 3 and 4.
45 In addition to the types of provisions outlined here, some treaties include articles defining the terms used in the treaty.
46 UN General Assembly Resolution 64/48. Available at: https://undocs.org/A/RES/64/48
47 World Health Assembly, "The World Together: Establishment of an intergovernmental negotiating body to strengthen pandemic prevention, preparedness and response", 2021. Available at: https://apps.who.int/gb/ebwha/pdf_files/WHASSA2/SSA2(5)-en.pdf

is silent on the types of actions, policies, or laws that the new treaty, once adopted, may require its parties to undertake. In the field of environmental treaty-making, negotiation mandates rarely specify the core provisions of proposed treaties.

3.2 Global rules or nationally determined actions

What, precisely, is it that makes one set of core provisions more top-down or bottom-up than another set of core provisions? Simply put, it is a matter of national discretion—that is, the extent to which it is left up to each State party (after the treaty has entered into force) to decide for itself (i) what to do or achieve, and (ii) whether to do or achieve it. The former can arguably be captured by the term "specificity", while the latter can be understood as a degree of "bindingness". In a top-down treaty, the core provisions would typically have a high degree of both specificity and bindingness, while the core provisions in a bottom-up treaty would have a low degree of specificity and/or bindingness.

Specificity

Unless it is defined from the outset, an initial key question in the negotiation of a treaty's core provisions relates to the "specificity" of their proposed regulation—that is, what States parties should be required to do (or refrain from doing) or to achieve. The most common approach in multilateral treaties is for the core provisions to spell out specific acts that parties are required to undertake, or refrain from undertaking. For example, Article 3 of the Minamata Convention on Mercury stipulates that parties shall not allow primary mercury mining within their territories, unless that mining activity was already conducted "at the date of entry into force of the Convention".[48] In effect, this constitutes a ban on new primary mercury mining, which—coupled with a separate definition of primary mercury mining in Article 2(i), represents a high degree of specificity. The provision is unambiguous, clear and time bound.

At the other end of the spectrum, the Convention on Biological Diversity (CBD) states, among its core provisions, that "Each Contracting Party shall, as far as possible and as appropriate: [...] (i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components".[49] Based on this formulation, it is not clear what precisely States parties are required to do to close the gap between current practice and the desired end-state of conservation and sustainable use of biodiversity. It is, in other words, largely up to each State party to figure out what the necessary conditions might be, as well as to determine the parameters for the desired end-state. Overall, this amounts to a very low level of specificity.

In general, the level of specificity in core provisions is higher if the provisions seek to regulate actions (what States are required to do) rather than the outcomes (what States are required to achieve). A requirement to ban certain harmful activities, or prohibit placing specific products on the market, leaves less discretion to the national level than a requirement to achieve a particular result. That said, some outcomes are more specific than others. Article 3 of the Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC), for instance, spells out a requirement for Annex I countries to "ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in

48 2013 Minamata Convention on Mercury, Article 3(3). Available at: https://www.mercuryconvention.org/sites/default/files/2021-06/Minamata-Convention-booklet-Sep2019-EN.pdf
49 Convention on Biodiversity, Article 8(k). Available at: https://www.cbd.int/doc/legal/cbd-en.pdf

Actions versus outcomes

Specified actions: Actions and activities such as development, production, use, consumption, placing on the market, transfer, stockpiling, the introduction of technical standards and so on.

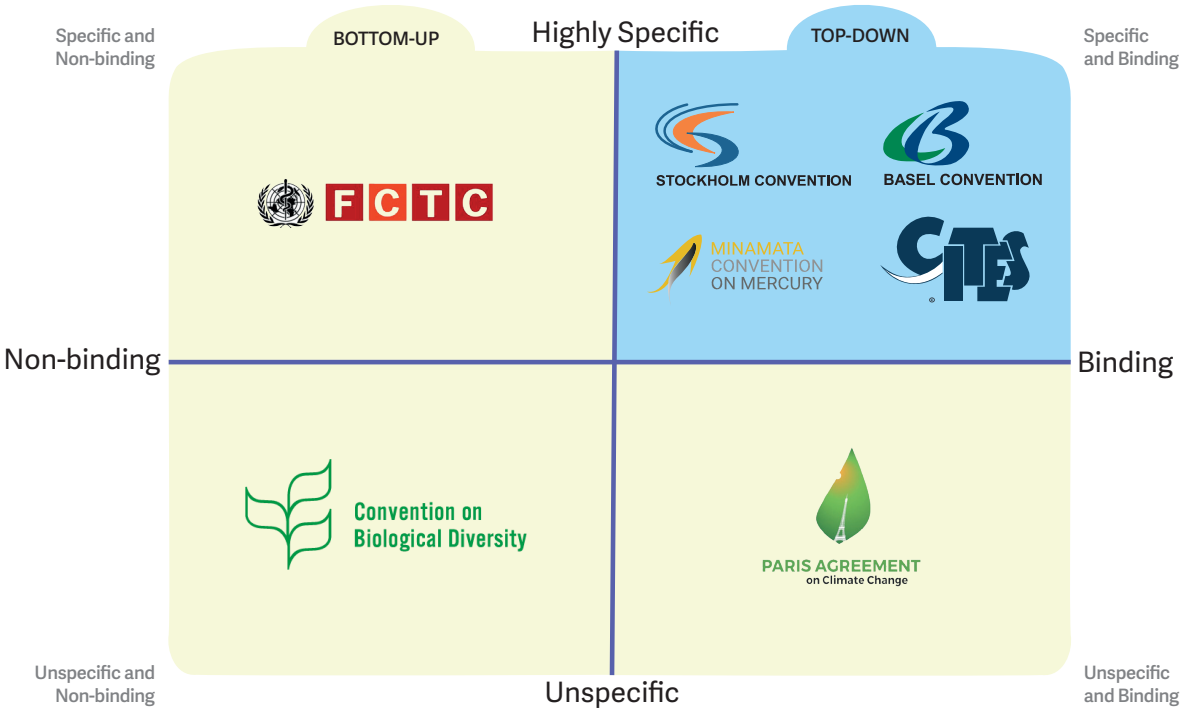
Unspecified set of actions producing certain outcomes: Outcomes such as reductions in emissions, or limits on releases into the atmosphere, oceans and so on.

Annex B". This was considered to be a top-down approach to tackling climate change. However, compared to most other MEAs, the Kyoto Protocol contains relatively weak top-down elements, as it only provides general guidance on the actions that States parties are required to undertake to achieve their targets.

Bindingness

The second key factor in determining the balance between top-down and bottom-up in a treaty's core provisions could be labelled "bindingness". This refers to the extent to which the core provisions are formulated as strict obligations or as more voluntary recommendations.[50] At its most basic, it is a question of whether the words shall or should are used in the articulation of the core provisions. Quite often, however, one or more qualifiers would be added—limited only by the imagination of the negotiators. The text from the CBD mentioned above is a case in point. The word "shall" is used at the beginning of the paragraph ("Each Contracting Party shall [...]") but is then supplemented by the words "endeavour to". As a result, States parties are not obliged to provide the conditions needed for conservation and sustainable use of biodiversity. It is only mandatory to endeavour to do so.

Figure 5: Core provisions: Specificity and bindingness



50 Note that the extent to which a treaty, more broadly, is considered binding for its parties will depend on more than just the language used in the core provisions (e.g., whether the agreement itself is a legally binding instrument, whether the rules are enforceable and justiciable). See, for instance, Daniel Bodansky (2015), pp. 159-160.

4.

From Paris to Montreal: Choosing the right model

There is no “ideal” model for the design of a multilateral environmental agreement. Any treaty should, as a fundamental point of departure, be based on an analysis of the structure of problem it seeks to address. As shown above, however, it is possible to envisage two distinct approaches to the design of a new treaty on plastic pollution: one that takes country-driven approaches and nationally determined actions as the starting point, and another one that sees treaties first and foremost as tools to create the highest possible common standard of action.

The Paris Agreement is often highlighted as a key example of a bottom-up multilateral agreement. While the Paris Agreement contains top-down elements in its supporting provisions, notably the “Global Stocktake”, as well as common institutional arrangements and common final clauses, its core feature is that it does not require its parties to implement any specific activities. Instead, the Paris Agreement places each party under an obligation to “prepare, communicate and maintain successive nationally determined contributions” according to an agreed impact goal, time frame and process, subsequently elaborated in the so-called Paris Agreement Rule Book. The core provisions of the Paris Agreement are therefore non-specific, in the sense that they leave it up to each party to identify the activities

and regulatory measures needed to address the problem. The agreement only provides non-binding, general guidance on how these targets and activities are to be regulated at the national level.

In contrast, the Montreal Protocol, the Stockholm Convention, and the Minamata Convention, can be described as treaties with more traditional top-down core provisions. In addition to the agreements' supporting provisions, institutional arrangements, and final clauses—which are all top-down—these treaties commit their parties to a set of specific and binding rules and standards. The core provisions of the original Montreal Protocol, adopted in 1987, placed its parties under an obligation to phase down the production and consumption of certain ozone-depleting substances according to an agreed timetable. Similarly, the Stockholm Convention includes prohibitions or regulations relating to the production, use, import and export of a specific list of persistent organic pollutants. Likewise, the Minamata Convention obligates all parties to prohibit or phase out primary mercury mining within an agreed time frame, to prohibit the manufacture, import or export of mercury-added products and to prohibit the use of mercury or mercury-added products in the manufacturing of other types of products.

A Paris-style and a Montreal-style treaty on plastic pollution would each have their advantages and drawbacks. The following section further explores what a bottom-up or top-down treaty on plastic pollution may look like, and assesses the anticipated effectiveness of each model.

4.1 A bottom-up treaty on plastic pollution

As noted in chapter 2, plastic pollution may be understood primarily as a complex systems problem, driven by a wide range of interrelated factors in the plastics value chain. From this perspective, the problem of plastic pollution emanates from a diversity of sources and involves societal actors from a wide range of sectors and levels. The sources, pathways and relevant response options may, moreover, vary from one national context to another.

If plastic pollution is framed as a systems problem, a bottom-up treaty on plastic pollution seems to be a logical response, as it would allow for considerable flexibility in terms of national actions and activities. Following the model of the Paris Agreement, a plastic pollution treaty focused on the "emissions" (leakage or discharge) of plastic into the environment could, for example, set a collective impact goal, which may be quantified or not, and place all countries under a general obligation to develop and implement an unspecified set of activities to reduce the leakage of plastics into the environment. These actions and activities could then be detailed in a national action plan or "nationally determined contribution", which may be submitted for collective review at a Conference of the Parties or similar mechanism.

Flexibility and broad participation

A Paris-style treaty on plastic pollution would allow parties to develop and introduce context-specific interventions, tailored to national or local circumstances. It would be in line with the point made by the United States during the OEWG, that there is "no one-size-fits-all" solution to plastic pollution and, as expressed by Japan in their submission to the first INC, that "uniform regulations or measures [...] would not be effective".[51] It would also correspond to the preference expressed by Saudi Arabia on behalf of the Asia-Pacific countries for a "bottom-up approach". Presumably, a

51 Japan's submission to the INC process of an international legally binding instrument on plastic pollution, including in the marine environment, July 15, 2022. Available at: https://apps1.unep.org/resolutions/uploads/japan.pdf

plastic pollution treaty modelled on the Paris Agreement would also establish a set of mechanisms to facilitate accountability and provide parties with guidance and assistance on the development and implementation of national policies, including a mechanism for national reporting and designated national administrative bodies and focal points,[52] a financial mechanism, and subsidiary bodies assessing progress in implementation and evaluating the effectiveness of the instrument.

Since policies will be determined at the national level after the treaty has been negotiated and adopted, States may not find it too tall of an order to join a bottom-up treaty on plastic pollution.[53] It may therefore be expected that a high number of States would accept the contents of such a treaty, including States with issue-specific relevance. However, even if a new treaty on plastic pollution does not include a set of specific and binding rules and standards that parties would be required to implement, some countries may still object to a bottom-up treaty, as it would place the onus on the countries with the greatest global share of leakage. For example, according to one estimate, six countries (China, Egypt, India, Indonesia, Russia and Thailand) are responsible for half of all mismanaged plastic waste in the world.[54] If the new treaty were to include a collective leakage reduction goal, akin to the two-degree Celsius target in the Paris Agreement, the countries with the highest estimated leakage rates may be inclined to object, as it would make them largely responsible for tackling the issue.

To account for these asymmetries, negotiators could seek to introduce other collective goals, either as an alternative to or in addition to an obligation to reduce the leakage or discharge of plastics into the environment. Following a life cycle approach, collective goals or targets could, in principle, be introduced along the entire plastics value chain. This would include goals and targets relating to the extraction of raw materials, design and production, packaging and distribution, the use and maintenance of plastics, and the disposal, incineration and landfilling of plastic waste. Once such goals have been agreed and adopted, parties to the treaty could, in turn, develop and communicate their nationally determined contributions towards these goals.

52 MEAs with national administrative bodies tend to achieve higher levels of compliance, enhancing reporting and activities aimed at treaty obligations. CITES (Convention on International Trade in Endangered Species of Fauna and Flora) is a prime example, as it requires that each of its parties establish a national authority meant to enforce the permit system set up by the convention. The CITES convention uses a system of permits and certificates to regulate international trade in animal and plant species listed in one of its three annexes.

53 It should be noted, however, that an attempt to differentiate obligations on the basis of a consideration of which countries have the greatest responsibility for the "high and rapidly increasing levels of plastic pollution" in the environment could quickly become a source of political contention between countries, as it may not be possible to agree where the responsibility lies. The UNFCCC provide a cautionary tale in this respect. The United States, a major emitter of greenhouse gases, refused to ratify the Kyoto Protocol partly because the Protocol did not mandate "new specific scheduled commitments … for Developing Country Parties". The UNFCCC and the Kyoto Protocol's "hard" differentiation between developed and developing countries was a major reason why the protocol was eventually scrapped and replaced by the Paris Agreement, which relies on a significantly "softer" differentiation between developed and developing countries. To maximise the prospects for broad participation in the new treaty on plastic pollution, negotiators may therefore opt to develop a treaty which does not rely on a common view of countries' responsibility for the "high and rapidly increasing levels of plastic pollution", but instead gives all countries an obligation to, essentially, do what they can to reduce these levels.

54 Borelle et al., "Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution", Supplementary materials, Science 369, 1515–1518 (2020). Available at: https://www.science.org/doi/suppl/10.1126/science.aba3656. Note that there is considerable uncertainty surrounding these numbers, and a 2015 report by Ocean Conservatory, which ranked all 192 coastal countries according to plastic leakage into the ocean, was criticized for creating a "false narrative" about who is responsible for plastic waste. In response, Ocean Conservatory issued a public apology and retracted their report. For more, see https://www.theguardian.com/environment/2022/sep/15/ocean-conservancy-ngo-retracts-2015-waste-colonialism-report-blaming-five-asian-countries-for-most-plastic-pollution?CMP=twt_a-environment_b-gdne-co&fbclid=IwAR2QNPJwstielTb5-o2ZQlK8lUs3Eh02iMRhLJJDlYVK8moK7-s1NUEnfsM

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Lingering credibility challenges

The main problem with a bottom-up treaty on plastic pollution, as outlined above is, however, that it risks decoupling the debate about the treaty's desired impact from the debate about the specific activities that parties will have to undertake (or refrain from undertaking) to produce this impact. Since each party under such a treaty would be required to develop and implement policies at the national level after the collective treaty objective has been set, there would be no way of ensuring that the commitments submitted by each party would be sufficient, in sum, to produce the reductions required to achieve the treaty's objectives. Indeed, that is exactly the problem with the nationally determined contributions submitted under the Paris Agreement. Even if all the most recent pledges from the global climate summit in Glasgow are fully implemented, the world "will emit roughly twice as much in 2030 as required for 1.5°."[55] This gap remains an important and unresolved problem for the Paris Agreement's credibility and anticipated effectiveness. A bottom-up treaty on plastic pollution could easily face similar credibility challenges.

Moreover, it could be argued that a bottom-up treaty on plastic pollution would increase the leverage of influential actors located or based within individual countries, also known as veto players. As noted by Oran Young in his analysis of the Paris Agreement:

> *[V]eto players may emerge as entrenched sources of opposition to efforts to strengthen national commitments under the terms of specific regimes, especially in cases where such players are in a position to exercise direct influence over policy making processes at the national level.*[56]

55 Climate Action Tracker (2021), "Glasgow's 2030 credibility gap: net zero's lip service to climate action", 9 Nov 2021. Available at: https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/.

56 Oran R. Young, "The Paris Agreement: Destined to Succeed or Doomed to Fail?", in Hovi and Skodvin (eds), Climate Governance and the Paris Agreement, University of Oslo, 2016.

Unless a new treaty on plastic pollution stipulates a common set of specific policies that all countries are required to implement, it can be expected that policies designed to reduce the leakage of plastic into the environment at the national level will become an object of ongoing contestation and renegotiation, even after the treaty has been formally adopted.

In addition, a bottom-up treaty on plastic pollution could limit the opportunities for economies of scale. Since every country would have to figure out by themselves which actions to take to address the problem (administrative costs), and every company involved in cross-border trade of plastics would have to identify and adapt to the particular rules and regulations for those countries (compliance costs), solving the problem of plastic pollution could, in sum, become more expensive. Moreover, this cost could disproportionately fall on the poorest countries, which would have to set aside resources to develop tailor-made solutions instead of making use of a set of globally agreed rules.

Furthermore, the absence of a set of specific and binding rules and standards that parties will be required to implement could make it difficult to monitor, verify and enforce compliance with the treaty's provisions. Even if, as suggested by the negotiation mandate, the new treaty could establish a subsidiary body tasked with assessing the progress made regarding implementation of the treaty, the body may find it difficult to know exactly what its members are supposed to assess without specific and binding core provisions.

Finally, and by the same token, a bottom-up treaty on plastic pollution may prove difficult to strengthen over time. As noted by Young, most international regimes "start out as relatively modest arrangements that do not make demands on their members that will prove difficult to implement".[57] The key to the success of these treaties hinges, in many cases, upon the ability to strengthen commitments over time. While the Paris Agreement contains mechanisms for the ratcheting up of commitments—and a similar mechanism may be envisaged in the new treaty on plastic pollution—the lack of a "common currency" underlying the nationally determined contributions makes these mechanisms difficult to implement in practice.[58] A bottom-up treaty on plastic pollution risks running into the same difficulties.

4.2 A top-down treaty on plastic pollution

As noted in chapter 2, plastic pollution can also be framed as a more narrowly defined pollution issue, akin to the problems addressed by the Montreal Protocol, the Minamata Convention, or the Stockholm Convention. From this perspective, the challenge of tackling plastic pollution essentially boils down to identifying the types of plastic products that most frequently end up in the environment, assessing the environmental risk of these products, and identifying cost-efficient measures that can be applied universally in order to minimize leakage-risk (taking into account the entire life cycle of these products). This could, of course, include measures targeting a broad category of products (e.g., minimum recycled content in all plastic packaging). Although production, consumption, and waste management practices will vary from country to country, there is a surprisingly high correlation in the composition of plastic pollution (types of products most frequently found in the environment) between different regions of the world.[59]

57 Oran R. Young, "The Paris Agreement: Destined to Succeed or Doomed to Fail?", in Jon Hovi and Tora Skodvin (eds), "Climate Governance and the Paris Agreement" (University of Oslo, 2016).
58 Ibid.
59 See, for instance, Morales-Caselles et al., "An inshore–offshore sorting system revealed from global classification of ocean litter", Nat Sustain 4, 484–493 (2021). Available at: https://doi.org/10.1038/s41893-021-00720-8.

Following the models of the Minamata Convention or the Stockholm Convention, negotiators could agree to prohibit, phase down or otherwise restrict the production, placing on the market, export and import of certain high-risk product categories or materials. Parties could agree to implement these control measures according to an agreed timetable, which may be reviewed and amended at subsequent Conferences of the Parties. Such a treaty would respond to Switzerland's call for a treaty a treaty with "clear obligations and specific measures",[60] including "prohibitions/ phasing out of certain types of substances and products" and "product requirements and design standards".[61]

Building on the Montreal Protocol, moreover, and to "allow countries discretion in implementation of their commitments",[62] parties with very low consumption levels of the controlled product categories could be granted the option of postponing implementation by a certain number of years. Finally, parties could establish a set of mechanisms to facilitate compliance, including through restrictions on import and export, and provide parties with incentives for the implementation of agreed measures, including a mechanism for national reporting and designated national administrative bodies and focal points, a financial mechanism, and subsidiary bodies assessing progress in implementation and the effectiveness of the instrument.

Advantages of specific and binding core provisions

From a problem-solving perspective, there are several advantages to such an approach. First, a top-down treaty on plastic pollution would provide parties with clearer guidance on their legal requirements under the treaty. In contrast to a bottom-up approach, where each party would be responsible for identifying and implementing the rules and standards that, in their view, would fulfil their obligations under the agreement, a top-down treaty would make it clearer from the time of the treaty's adoption what parties are required to do, or refrain from doing. Crucially, increased clarity around the requirements of the treaty could strengthen developing countries' case for technical and financial assistance to implement their obligations. More broadly, a treaty targeting the activities, practices and standards that are, at the moment of negotiation, known to lead to plastic pollution, could help reduce the perceived complexity of the issue.[63]

Second, it would be significantly more straightforward to monitor, verify and enforce compliance with a treaty that contains a set of specific and binding rules and standards. While compliance with treaties that aim to solve transboundary cooperation problems will always be challenging, a specific set of regulated activities would facilitate the parties' ability to monitor and, if appropriate mechanisms are established, verify whether the policies or control measures are in fact being implemented by other parties. This provides confidence among States parties that others are also carrying their fair share of the burden. For example, while not without its challenges, it would be significantly easier to monitor and verify whether a country has implemented a set of regulatory measures designed to reduce the leakage of certain high-risk plastic products,

60 Statement by Switzerland to the ad hoc OEWG to prepare for the intergovernmental negotiating committee on plastic pollution, delivered on 30 May 2022. Available at: https://apps1.unep.org/resolution/uploads/switzerland_0.pdf#overlay-context=node/344/revisions/11012/view%3Fq%3Dnode/344/revisions/11012/view

61 Written submission from Switzerland to the first INC, 14 July 2022. Available at: https://apps1.unep.org/resolutions/uploads/switzerland_1.pdf.

62 UNEP/EA.5/Res.14, "End plastic pollution: Towards an international legally binding instrument", operative paragraph 4(c).

63 WWF, "Success criteria for a new treaty on plastic pollution" (September 2021). Available at: https://media.wwf.no/assets/attachments/SUCCESS-CRITERIA-for-a-new-treaty-on-plastic-pollution-FINAL-DRAFT-30-AUG-2021-WEB-medium-res.pdf#page13.

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than to monitor and verify whether the same country has in fact reduced the leakage of plastics into the environment to a level below a certain threshold, for which there is currently no reliable baseline. Moreover, the relative certainty with which it could be established whether a party complies with its obligations, makes it possible for negotiators to adopt more stringent compliance measures, such as trade restrictions or other economic incentives.[64]

Third, a set of specific and binding core provisions could provide parties with the "common currency" required to strengthen their commitments over time. As noted above, a top-down treaty could help reduce the perceived complexity of the issue of plastic pollution. Yet, lingering uncertainty about viable alternatives and the long-term effectiveness and cost-efficiency of policy measures would likely require a treaty that would allow parties to strengthen their commitments over time in light of new knowledge, technologies and capacities. Following the model of the Montreal Protocol, which is often considered to be the gold standard in how to strengthen commitments over time,[65] parties to a new treaty on plastic pollution could, for example, initially agree to prohibit, phase down or phase out plastic products with a high risk of leakage and for which viable alternatives exist. As more knowledge becomes available about leakage probability, environmental damage, efficacy of policy measures and the availability of alternatives to these plastic products, parties could agree to expand and/or accelerate these measures at subsequent Conferences of the Parties.

64 It should be noted that while a top-down approach would allow for more stringent enforcement measures in theory, it is unclear whether the implementation of such measures would be possible in practice. States are generally reluctant to agree to stringent enforcement measures, as such measures may impinge on their perceived sovereignty. In general, it has proven difficult to codify and implement stringent enforcement measures in multilateral environmental agreements.

65 Oran R. Young, "The Paris Agreement: Destined to Succeed or Doomed to Fail?", in Jon Hovi and Tora Skodvin (eds), "Climate Governance and the Paris Agreement" (University of Oslo, 2016).

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In search of effective measures

If negotiators of a new treaty on plastic pollution opt for a top-down approach to treaty-making, the main negotiating challenge would be to identify the activities, practices and standards to be regulated in the new treaty. This will, for instance, involve considering whether to regulate plastic products (products that are wholly or partially made from plastic, such as plastic bottles and bags),[66] plastic polymers (manufactured resin produced from petrochemical or biomass feedstock, such as polyvinyl chloride and polyethylene terephthalate) and/or plastic materials.[67] Moreover, unless the new treaty is designed to address all plastic products, polymers and materials, negotiators will have to develop a criterion for the selection and prioritization of plastic products or polymers to be regulated under the new treaty, for example, products, polymers and materials at (high) risk of ending up as unmanaged plastic waste in the environment. This challenge will require significant intellectual and structural leadership, including through "coalitions of the willing".[68]

66 This would be in line with the 2019 European Union Directive on the reduction of the impact of certain plastic products on the environment, which includes policy measures regulating (i) single-use plastic products found on beaches, (ii) fishing gear containing plastic, and (iii) products made from oxo-degradable plastics. See Hugo, T. G. and Andresen, S. (2021) "Towards a new treaty on plastic pollution: Assessing the relevance of the EU directive on single-use plastics". Available at: https://media.wwf.no/assets/attachments/Assessing-the-relevance-of-the-EU-directive-on-single-use-plastics.pdf.

67 This would be in line with EIA's submission to the first INC, which recommends that the new treaty on plastic pollution includes provisions to "freeze and phase-down" production and consumption of virgin plastic polymers. See EIA, "Convention on plastic pollution—Essential Elements: Virgin Plastic Production and Consumption", 2022. Available at: https://apps1.unep.org/resolutions/uploads/essential_elements_-_production_and_consumption.pdf

68 As noted by Young, leadership can take many forms: "Intellectual leadership is a matter of creativity in finding new and effective ways to characterise a problem. Entrepreneurial leadership involves the ability to put together coalitions of the willing to support the strengthening of commitments. Structural leadership centres on the capacity to bring to bear material resources (e.g., financial assistance or rewards) in a manner that helps to persuade reluctant parties to join coalitions supporting the strengthening of commitments."

In addition, it would require a consideration of what may be called "the regulatory point of incidence". This expression refers to the most appropriate intervention point in the causal chain of plastic pollution. Negotiators could, in this respect, choose to target activities and practices that are high up in the value chain, such as the production, design, placing on the market and consumption of plastic products or plastic polymers, and/or activities and practices positioned lower down in the value chain of plastic pollution, such as disposal, recycling, incineration and landfilling of plastic products or plastic polymers. With a view to maximizing cost-efficiency, the regulatory point of incidence would depend on the product category, use patterns and an analysis of leakage cause. Given the limited amount of time set aside for the negotiations of the new treaty on plastic pollution, reaching an agreement on these issues may prove an insurmountable challenge for negotiators.

Furthermore, once adopted, negotiators would have to consider how the implementation of the obligations could be incentivized. This could include soft implementation measures, such as a monitoring, reporting, focal points and review mechanisms, as well as the provision of financial and technical support to assist parties in their implementation efforts, or harder enforcement measures. Following the models of the Montreal Protocol, the Minamata Convention, or the Stockholm Convention, negotiators could consider imposing export and import restrictions or other economic measures on non-parties or parties found to be in non-compliance with their obligations.

Finally, to account for differences in national circumstances, including a State's capacity to implement the agreed control measures, a treaty with specific and binding core provisions may have to confer different obligations upon its parties according to some criterion.[69] A provision granting parties with very low consumption levels of the controlled product categories a delay in the implementation of the treaty's provision may not be enough to account for pre-existing differences in national circumstances. This may lead negotiators to propose alternative criteria of differentiation, such as level of economic development. However, this may become a source of political contention in itself.[70]

A leadership challenge

The main challenge for a treaty with specific and binding core provisions may be to deal with a potentially politically malign problem structure, and therefore to garner the participation required to effectively solve the problem. As noted above, several

69 There are many examples of multilateral agreements that confers different obligations upon its parties according to some criterion. The 1992 UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, for example, introduce a "hard" distinction between developed countries and developing countries, mainly to account for the fact that "the largest share of historical and current global emissions of greenhouse gases has originated in developed countries [and] that per capita emissions in developing countries are still relatively low", as stated in the preamble of the UNFCCC. In line with this, UNFCCC's and the Kyoto Protocol's obligations to cap and reduce emissions of greenhouse gases applies primarily to developed countries. In the field of international security and disarmament, the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) introduces a legal distinction between States that had "manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967" (labelled "nuclear-weapon States"), on the one hand, and those that had not (labelled "non-nuclear-weapon States") on the other. Under the NPT, the non-nuclear-weapon States undertake never to receive, manufacture, or acquire nuclear weapons, whilst the nuclear-weapon States undertake not to transfer or in any way assist, encourage or induce non-nuclear-weapon States to do so. In all cases, the criteria introduced to differentiate between the parties' obligations have become entrenched sources of political contention.

70 Initially, the political dimension put great strains on the biodiversity negotiations. Comparatively higher levels of technological and economical ability to exploit biological resources gave the developed countries close to all the benefits from harvesting the added cash-flows from biotechnology, with little benefits accruing to the Global South. The global distribution of terrestrial biological diversity put a greater burden of conservation on tropical countries in the South. This gave rise to the access and benefit sharing regime of the Convention on Biological Diversity. For climate, historical emissions initially put most of the responsibility for action on the developed world (Kyoto), while the Paris agreement made all parties responsible for implementing obligations – which may have enhanced implementation willingness among developed countries.

countries and groups of countries have indicated that they do not wish to submit to a set of policies negotiated and adopted at a multilateral level. This includes actors with considerable global influence, including the United States and Japan. On the other hand, other countries, including Switzerland, Norway, and Rwanda, as well as the EU, have indicated that they wish to see the development of a set of specific and binding provisions.

Persuading a critical mass of States of the merits of a plastic pollution treaty with specific and binding core provisions will require significant entrepreneurial and structural leadership. Countries wishing to pursue such a treaty will have to pro-actively put together coalitions of the willing throughout the negotiations, and employ pledges of financial assistance or other rewards to gradually broaden support for such a treaty. To succeed, countries may have to be willing to adopt a treaty without support from all the States participating in the negotiations, even if such an approach could be criticized for lacking inclusivity. It is currently unclear whether governments would be prepared to adopt a treaty without full consensus among the States participating in the negotiations, even if the rules of procedure may provide that possibility.[71]

Yet, entrepreneurial and structural leadership may not be enough to secure support from the critical mass of States required to make a treaty on plastic pollution effective. As noted, some countries could object to a bottom-up treaty because it would place the onus on and require significantly deeper commitments from those countries with the highest rate of mismanaged plastic waste. Negotiators of a top-down treaty would have to take the same asymmetry considerations into account. A treaty containing an obligation to prohibit, phase down or phase out the production of certain plastic products could, for example, lead veto players in countries with high production of such products to lean on their governments to object to the treaty's adoption and to refuse to sign and ratify it after adoption.

However, a treaty with specific and binding core provisions appears to allow negotiators significantly more flexibility in leveraging and managing asymmetries in the problem structure than a bottom-up treaty without any common global rules. In addition to the possibility of including trade restrictions, which is quite common in pollution-oriented MEAs, a top-down treaty would allow negotiators to explore trade-offs and bargains, for instance by including a provision to phase out certain plastic products in return for financing of the phasing in of technical waste management standards to prevent such pollution. While identifying and elaborating such trade-off proposals would be a crucial task for negotiators of a top-down treaty on plastic pollution, the two-year timeline envisaged for the negotiations may make such an exercise difficult to complete in time for the treaty's adoption.

71 Experience from other top-down treaty making processes has shown that civil society and other non-state actors can play a key role in building support for ambitious treaty proposals over time, especially if there is a certain degree of coordination between leading negotiators and civil society. There is also some evidence to suggest that, under certain circumstances, countries that have initially been opposed to the adoption of a treaty, may over time change its stance and join the treaty or otherwise adhere to its provisions after it has been adopted.

Conclusion

The start of negotiation of a plastic pollution treaty marks a critical juncture in global environmental governance. Over the next two years, States will seek to establish a common understanding of the problem of plastic pollution and identify measures to tackle the environmental, social and economic costs of plastic pollution. The outcome of these efforts will to a large extent determine whether, in a few decades, the international community can look back at plastic pollution as a problem solved, or whether plastic pollution becomes another unwanted gift from past and current generations to generations yet to come. Moreover, just as the upcoming negotiations will be informed by past efforts to solve global problems through international law, the new treaty on plastic pollution will in turn inform future efforts to solve other global problems.

This report has sought to identify and analyse one of the emerging fault lines in the negotiation of a plastic pollution treaty: the choice between a bottom-up and a top-down approach to treaty-making. As this conclusion is written, Reuters reports that the United States is seeking to form a coalition of countries to keep the new treaty's "focus on the efforts of individual countries in a model similar to the 2015 Paris climate accord, rather than provide new universal rules

favoured by other major nations".[72] This makes it all the more important to arrive at a clear understanding of what the choice between a bottom-up and a top-down approach to treaty-making entails.

This report has approached the issue from the perspective of regime effectiveness theory. It has argued that the choice of approach is related to the manner in which the problem of plastic pollution is conceptualized and framed. It has highlighted that the choice between a bottom-up and a top-down approach is not binary, and that it comes down to a question about the level of specificity and bindingness of the new treaty's core provisions. Moreover, based on experiences from existing multilateral agreements and lessons learned from regime effectiveness research, the report has argued that a plastic pollution treaty containing core provisions with specific and mandatory global rules and standards will likely address the problem of plastic pollution more effectively than a bottom-up treaty based on country-driven approaches alone. At the same time, the feasibility and ultimate success of a top-down treaty will depend on the ability of its proponents to convince a critical mass of States of the benefits of introducing them as common global rules. This, it would seem, is the main diplomatic challenge for States and other actors seeking an ambitious treaty on plastic pollution, as they prepare for the first INC in November 2022.

Although the difference between a bottom-up and a top-down approach to treaty-making appears to become a significant fault line in the negotiation of a plastic pollution treaty, the choice between the two approaches may not be mutually exclusive. Indeed, there may be aspects of the plastic pollution problem that could be addressed more effectively through specific and binding core provisions, while other aspects of the problem, notably aspects characterized by large differences in national circumstances, that could benefit from a more flexible approach. Identifying those aspects of the plastic pollution problem that would not benefit from a set of specific and binding core provisions adopted at a multilateral level is an important question for further research.

Moreover, the difference between a top-down and a bottom-up approach to the new treaty on plastic pollution will not be the only factor influencing the treaty's success. In a few decades, when the effectiveness of the plastic pollution treaty can be assessed with the benefit of hindsight, the choices made by States and other stakeholders throughout the negotiations, particularly those of veto players, could to a large extent explain the treaty's effectiveness. As the negotiations for the new treaty begin in Uruguay, monitoring the positions and statements of influential actors and potential veto players is also an important undertaking.

Finally, the success of the new treaty will also depend on the design of the new treaty's structure, supporting provisions, institutional arrangements and final clauses. Given the limited amount of time set aside for the negotiations of the new treaty, it appears to be especially important to establish mechanisms that would allow both the obligations and the implementation of the treaty's provisions to be gradually strengthened over time. How reporting, monitoring, verification and enforcement provisions, as well as science-policy interfaces, may be designed and utilized to achieve this are thus important questions for further research.

72 https://www.reuters.com/world/exclusive-us-seeks-allies-split-emerges-over-global-plastics-pollution-treaty-2022-09-27/

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