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TOWARDS A NEW TREATY
ON PLASTIC POLLUTION

ASSESSING THE RELEVANCE OF THE EU DIRECTIVE ON SINGLE-USE PLASTICS

JUNE 2021

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ASSESSING THE RELEVANCE OF THE EU DIRECTIVE ON SINGLE-USE PLASTICS

There is growing support among UN Member States for the development of a new global agreement to tackle marine plastic pollution. So far, however, the multilateral discussions on the issue have focused more on the *rationale* for a new treaty than on the *design* of it. At this point, it is therefore not entirely clear what a new treaty would aim to achieve, and how it could be shaped in order to achieve it. A key challenge in this regard will be to develop a shared understanding of the treaty's objectives and scope, as well as to identify the global rules, regulations and standards needed to put the international community on the path towards reaching that goal. It will also be important to figure out how the new legal framework can incentivize the required change in behaviour among UN Member States. The purpose of this report is to contribute to the ongoing discussions by considering whether any useful lessons in this regard can be drawn from the way the European Union has approached the issue, and in particular by assessing the relevance of the 2019 directive on single-use plastics, one of the few existing international legal frameworks specifically aiming to reduce plastic pollution in the marine environment.

TABLE OF CONTENT

EXECUTIVE SUMMARY

- **There is growing support among UN Member States for a new global agreement to tackle marine plastic pollution**. So far, however, the multilateral discussions on the issue have focused more on the *rationale* for a new treaty than on the *design* of it. At this point, it is not entirely clear what that new treaty would aim to achieve, and how it could be shaped in order to achieve it.

- **A key challenge in the process of elaborating the new treaty will be to develop a shared understanding of the treaty's objective and scope**, as well as to identify the global rules, regulations and standards needed to achieve a meaningful reduction in the discharge of plastic litter and microplastics into the ocean. It will also be important to figure out how the new legal framework can incentivize the required change in behaviour among UN Member States.

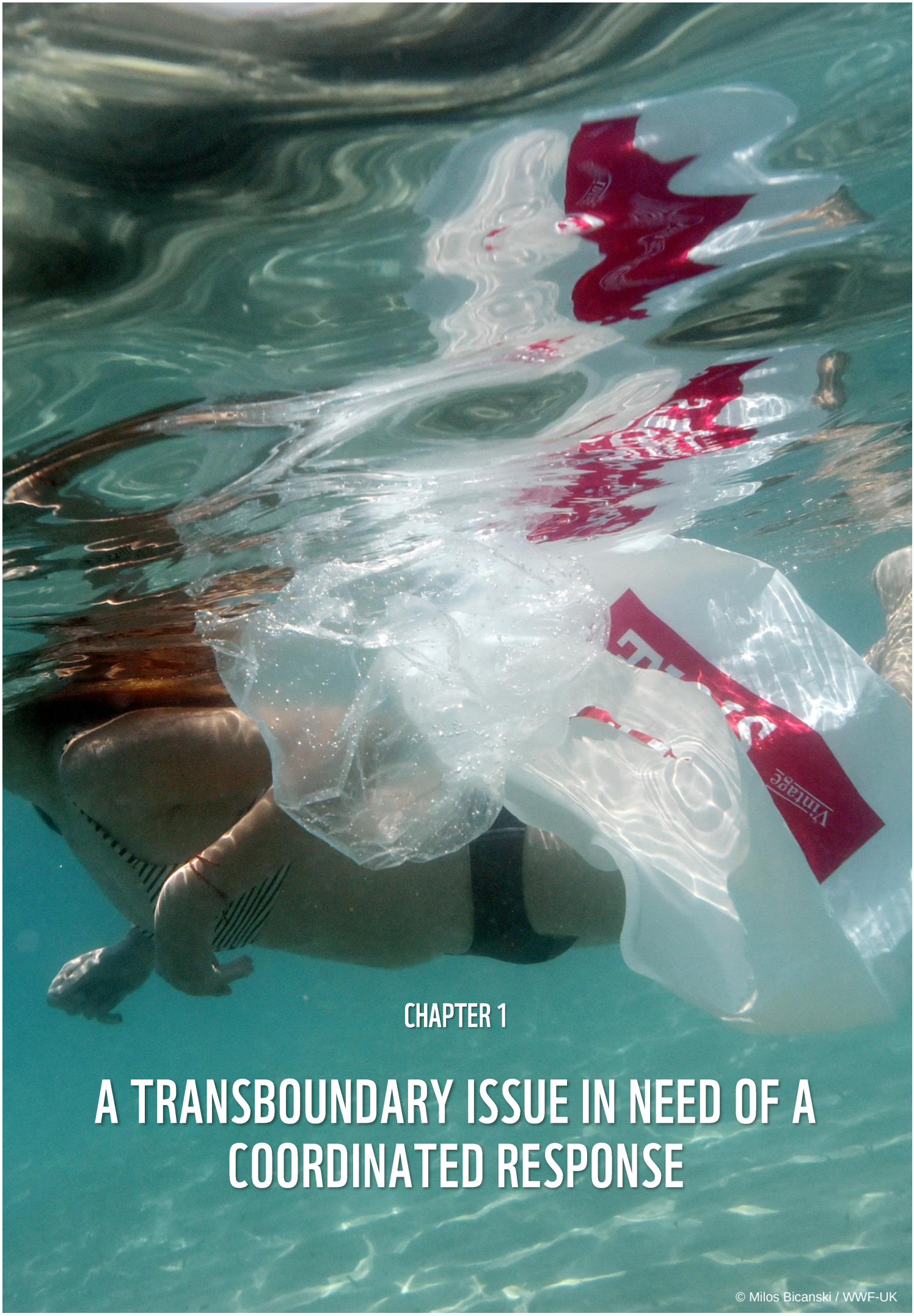
- **The SUP Directive is a useful source of inspiration, even if it doesn't tell the full story.** There is a broad range of EU regulation with bearing on the issue of marine plastic pollution, but the 2019 single-use plastics directive (SUP Directive) is the only legal act specifically dedicated to the issue. It is also one of the few existing international legal frameworks specifically aiming to reduce plastic pollution in the marine environment. When exploring the potential elements of a new treaty, the SUP Directive therefore merits consideration.

- **The SUP Directive does not address *all* plastic pollution. It prioritizes.** The SUP Directive has a narrow thematic scope, which is based on items found on beaches in the region. This serves to reduce the regulatory complexity of the issue, but with the drawback of leaving some parts of the problem out, at least initially.

- **The SUP Directive uses an item-based approach, which eases the task of regulation.** Most of the policy measures introduced are targeted, specific, unambiguous, and verifiable. And they are large proportional, meaning they do not go beyond what is necessary to achieve the Directive's defined objective. Prevention is prioritized, and most measures are consequently aimed high up in the causal chain (e.g., ban, design requirements, markings, recycled content etc.). This despite the marine starting point.

- **The SUP Directive has many strong features but is difficult to use it as a blueprint for a global agreement.** In principle, all the policy measures contained in the SUP Directive could be applied at global level but doing so would likely produce problems of legitimacy. An even bigger issue on a global level is to ensure participation and compliance. A new treaty would probably need a suite of institutional arrangements, supporting provisions and compliance mechanisms that are already taken care of within the EU system.

- **As inspiration for the design of a new global agreement on marine plastic pollution, the SUP Directive is first and foremost useful in terms of illustrating how specific, measurable, and harmonized rules for tackling single-use plastics might be shaped.** It is less relevant when it comes to reducing leakage of other categories of plastic, or for setting up an implementation support architecture to assist countries in meeting their obligations. For that, it might be better to seek inspiration elsewhere.



CHAPTER 1

A TRANSBOUNDARY ISSUE IN NEED OF A COORDINATED RESPONSE

1 A TRANSBOUNDARY ISSUE IN NEED OF A COORDINATED RESPONSE

Plastic has become the most dominant form of marine litter in the world's oceans.[1] It comes in a wide variety of forms, from microscopic particles to trawl nets the size of football fields.[2] According to one estimate, more than five trillion pieces of plastic, with a total weight of around 260,000 metric tons, are floating around on the ocean surface.[3] Though these numbers pale in comparison to the plastic found on the ocean floor, where more than 90% of the marine plastic pollution is believed to have accumulated.[4] There is, however, still considerable scientific uncertainty regarding concentration levels, sources, pathways and leakage rates of plastic into the marine environment.[5] It remains an unresolved question where all the ocean plastic eventually ends up.[6]

The accumulation of plastic in the ocean poses a considerable risk for marine life. Nearly a thousand marine species are known to have been negatively affected by entanglement and/or ingestion,[7] including all known species of sea turtles and about half of all species of marine mammals. This, in turn, threatens marine biodiversity. About 15% of all the species affected were on the Red List of the International Union for Conservation of Nature (IUCN) as of 2012. In addition, plastic degrades into microplastic particles which have been shown to alter soil conditions,[8] contribute to coral degradation[9] and impact the health of marine life. For the marine environment in particular, plastic pollution represents a major threat to biodiversity along with habitat destruction, climate change and invasive alien species.[10]

By reducing the productivity of vital natural systems, plastic pollution also has significant economic costs. This is especially true for the tourism, fishing, and shipping industries, which benefit directly from marine ecosystem services. In the Asia-Pacific region alone, the cost of marine plastic pollution to these three industries is estimated at USD 1.3 billion a year.[11]

1.1 A FRAGMENTED AND INEFFECTIVE INTERNATIONAL GOVERNANCE STRUCTURE

Plastic pollution in the world's oceans is a classic example of a *negative multilateral externality*, whereby the sum of actions and activities of each individual country generates

[1] Estimates vary, but all of the top ten items found in coastal clean-ups since 2017 have been made of plastic (see Ocean Conservancy (2019), "The Beach and Beyond". In the EU, products made of plastic make up about 80% of the items found on beaches.
[2] Stephanie Pappas, "'Ghost Gear' Haunts the Oceans in a Growing Threat", Scientific American, November 7, 2018.
[3] Eriksen et al. (2014), "Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea", PLoS ONE 9(12), e111913, p. 2.
[4] See overview in Eunomia (2016), "Plastics in the Marine Environment".
[5] Most estimates of annual discharge rates of plastic into the ocean rates focus on leakage from mismanaged waste, with ranges from about 5 million metric tons to about 12 million metric tons. On top of this comes leakage from sea-based sources, as well as releases of primary microplastic. See e.g., PEW and SYSTEMIQ (2020), "Breaking the Plastic Wave"; Jambeck et al. (2015), "Plastic Waste Inputs from Land into the Ocean"; UNEP (2018), "Mapping of global plastic value chain and plastics losses to the environment"; Boucher and Friot (2017), "Primary Microplastics in the Oceans"; and Eunomia (2016).
[6] Eriksen et al. (2014).
[7] Kuhn and van Franeker (2020), «Quantitative overview of marine debris ingested by marine megafauna», *Marine pollution bulletin* 151. See also Secretariat of the Convention on Biological Diversity, "Marine Debris: Understanding, preventing and mitigating the significant adverse impact on marine and coastal biodiversity", Technical Series No. 83 (2016); Secretariat of the Convention on Biological Diversity, "Impacts of Marine Debris on Biodiversity", Technical Series No. 67 (2012).
[8] Microplastics are commonly defined as plastic particles <5 mm. See e.g., de Souza Machado et al., "Microplastics as an Emerging Threat to Terrestrial Ecosystems", December 2017.
[9] UNEP (2016), "Marine Plastic Debris and Microplastics – Global Lessons and Research to Inspire Action and Guide Policy Change".
[10] Secretariat of the Convention on Biological Diversity (2012).
[11] UNEP (2014), "Valuing Plastics: The Business Case for Measuring, Managing and Disclosing Plastic Use in the Consumer Goods Industry".

harmful effects that extend to areas beyond their respective national boundaries. To adequately address this problem, *coordination* is required.

Currently, however, the existing international governance structure for marine plastic pollution is "fragmented and uneven".[12] There is a host of legally binding international agreements in place that directly or indirectly have bearing on the issue of marine plastic pollution,[13] and there is also a patchwork of regional agreements that aim to protect specific areas of the world's ocean.[14] As the issue has gained more prominence over the past few years, many voluntary initiatives have also emerged.[15] But no dedicated global legal framework, specifically designed to deal with the issue of marine plastic pollution, has so far been developed.

1.1 GROWING CALLS FOR A NEW TREATY

Existing frameworks and initiatives may have provided useful opportunities for sharing experiences and identifying areas in need of better coordination, but they have not, so far, succeeded in turning the tide on plastic pollution. In recognition of the need for a more robust global governance structure to tackle marine plastic pollution, UN Member States have begun to voice their support for the development of a new global agreement.[16] Calls for a new treaty are also growing in strength among civil society organizations and scientists,[17] and even private companies.[18] In November 2020, at a meeting of governmental experts, several countries suggested that a decision to start formal negotiations on the new treaty should be adopted at the next session of United Nations Environment Assembly (UNEA).[19]

Existing frameworks and initiatives may have provided useful opportunities for sharing experiences and identifying areas in need of better coordination, but they have not, so far, succeeded in turning the tide on plastic pollution.

If the multilateral process continues along its current trajectory, it is likely that a formal negotiation process will be initiated within the next year or two. What is less clear at this point, is what precisely that new treaty would aim to achieve, and how it would be shaped to achieve it. So far, the multilateral discussions on this issue have focused more on the

[12] This was one of the key conclusions of a UNEP report from 2017, which was developed at the request of UNEA. See UNEP (2017), "Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches", p. 74.
[13] Examples include the Basel Convention, the Stockholm Convention, MARPOL Annex V, the London Convention, and the UN Convention on the Law of the Seas (UNCLOS).
[14] For more information, see UNEP (2017), as well as the UNEP website on Regional Seas Conventions.
[15] Examples include the Global Partnership on Marine Litter (GPML), the G7 Ocean Plastics Charter, and the G20 Plan of Action on Marine Litter.
[16] For an overview of the support, see WWF's global plastic navigator.
[17] See, for instance, Gold et al. (2013), "Stemming the tide of plastic litter: a global action agenda"; Worm et al (2017), "Plastic as a persistent marine pollutant"; and Borrelle et al. (2017), "Why we need an international agreement on marine plastic pollution". More than 2 million individuals around the world have also signed the WWF petition calling for a new global treaty.
[18] For an overview of businesses that support the negotiation of a new treaty, see www.plasticpollutiontreaty.org.
[19] The expert group meeting in November 2020 was the last of four meetings held between 2018 and 2020. The group was initially set up by the fourth UNEA in 2017, and the mandate was extended for another intersessional period in March 2019. For more details on the work of the expert group, see https://www.unep.org/environmentassembly/expert-group-on-marine-litter.

rationale for a new treaty than on the *design* of it.[20] With some notable exceptions,[21] input from States on what the new treaty might look like have been limited to headline comments about principles, approaches, and potential elements—pointing, for instance, to the need for a full life cycle approach, reduction targets, reporting obligations, a financial mechanism, and national action plans.[22]

As States and other stakeholders begin to explore these elements in further detail, a key challenge will be to figure out how the new legal framework can incentivize the required change in behaviour. Which global rules, regulations and standards are needed to put the international community on the path towards the "elimination of discharge of litter and microplastics to the oceans"?[23]

A key challenge will be to figure out how the new legal framework can incentivize the required change in behaviour.

The purpose of this report is to contribute to these discussions by considering whether useful lessons can be drawn from the way the European Union (EU) has approached the issue. We start with an analysis of the problem at hand (Chapter 2), drawing, to a large extent, on concepts and findings from the academic literature on regime effectiveness and lessons learned from other Multilateral Environmental Agreements (MEAs). In Chapter 3, we summarize and discuss the EU's approach to the regulation of marine plastic pollution, with a particular focus on the 2019 Directive on the reduction of the impact of certain plastic products on the environment (often labelled the 'single-use plastics directive', or 'SUP Directive').[24] In Chapter 4, we consider the relevance of the EU's approach for the design of a new global agreement on marine plastic pollution, before we end with some concluding observations in Chapter 5.

[20] The case for a new treaty to tackle marine plastic pollution has been elaborated in a number of recent publications. See, for instance, the Environmental Investigation Agency (2020), "Convention on Plastic Pollution Toward a new global agreement to address plastic pollution"; WWF/EMF/BCG (2020), "The business case for a UN treaty on plastic pollution"; WWF (2019), "Tackling marine plastic pollution: It is time to begin negotiations on a new legally binding agreement"; and Norwegian Academy of International law (2018), "The case for a treaty on marine plastic pollution".

[21] In late 2020, the Nordic Council of Ministers published a report on possible elements of a new global agreement to prevent plastic pollution (available at www.nordicreport2020.org). Some academic articles on lessons that could be drawn from other treaties in the design of a new plastic pollution agreement have also been published. See e.g., Raubenheimer and McIlgorm (2017), "Is the Montreal Protocol a model that can help solve the global marine plastic debris problem?"; and Raubenheimer and McIlgorm (2018), "Can the Basel and Stockholm Conventions provide a global framework to reduce the impact of marine plastic litter?".

[22] See e.g., submissions to the fourth expert group meeting, available via https://www.unep.org/environmentassembly/expert-group-on-marine-litter (note that, in contravention of the principle of transparency in public affairs, registration required to access the meeting documents)

[23] The long-term goal of eliminating discharge of plastic litter and microplastic into the ocean was adopted by UNEA at its third session in 2017. See UN Official Document UNEP/EA.3/Res.7, para. 10(d).

[24] Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment (SUP Directive).

CHAPTER 2

THE CHALLENGE OF REGULATING MARINE PLASTIC POLLUTION EFFECTIVELY

2 THE CHALLENGE OF REGULATING MARINE PLASTIC POLLUTION EFFECTIVELY

There is no shortage of pressing environmental problems. Many of these problems are subject to regulation through international legally binding agreements.[25] But unless you can be fairly certain that a new MEA will be able to resolve or at least improve the state of affairs, it makes limited sense to establish them. The value of a new global agreement on marine plastic pollution is ultimately a question about effectiveness.

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Regime effectiveness may be conceived in various ways. One could, for instance, view effectiveness in terms of a regime's ability to contribute to a fair and equitable distribution of costs and benefits for the parties involved. Most attention, however, has been paid to effectiveness in terms of problem-solving: to what extent has the relevant regime been able to solve the problem that prompted its establishment?[26] This is also the focus of this report.

Over time, a consensus has emerged that the following three criteria may be used to measure regime effectiveness: i) output, ii) outcome and iii) impact. To simplify: output deals with the rules and regulations adopted by the regime. As a point of departure, the more stringent and ambitious the rules, the higher the effectiveness can be expected to be. For example, a strict ban on all single-use plastic bags can be assumed to be more effective than a vague, qualified encouragement about preventing leakage of plastic bags into the environment. This approach is typically used by legal scholars when discussing effectiveness and it is also highly relevant for international relations (IR) students. Its main strong point is that is straightforward to measure. It has high reliability. However, the downside is that rules are not always followed. Thus, output is prone to a low score in terms of validity[27] (accuracy) and deals more with *potential* effectiveness rather than *actual* effectiveness.

Therefore, we need to study the actual effect of the regime on the relevant target groups, the outcome indicator. For example, has the UN Framework Convention on Climate Change (UNFCCC) led to a drop in the global production or consumption of oil compared to a business-as-usual scenario? Although this indicator has a higher score on validity, it is arguably lower in terms of reliability as it is much more difficult to measure precisely. The key challenge in terms of assessing regime effectiveness is to establish a causal link between the regime and the behaviour of target groups, since reductions may well result from a host of other factors. Cautious process tracing is therefore needed.

The impact indicator is even more demanding from a methodological point of view, as a causal chain needs to be established between the regime and actual impact on the

[25] In their dataset of environmental agreements, Mitchell et al. (2020) count 290 such lineages/regimes. See Ronald B. Mitchell et al. (2020), "What We Know (and Could Know) About International Environmental Agreements", Research Note, *Global Environmental Politics* (2020) 20 (1): pp.103–121.

[26] 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.

[27] 'Validity' is a concept used in the evaluation of research methods, techniques and measures. It is often coupled with the concept of 'reliability'. Validity is, at its most basic, about accuracy, whereas reliability is a question of consistency. Good research methods should score high on both counts.

biophysical problem. Here the number of other intervening factors are even higher, making this indicator difficult to apply in many cases. How would we know, for instance, if a global rule on awareness raising eventually leads to a drop in the number of single-use plastic bags floating in the ocean?

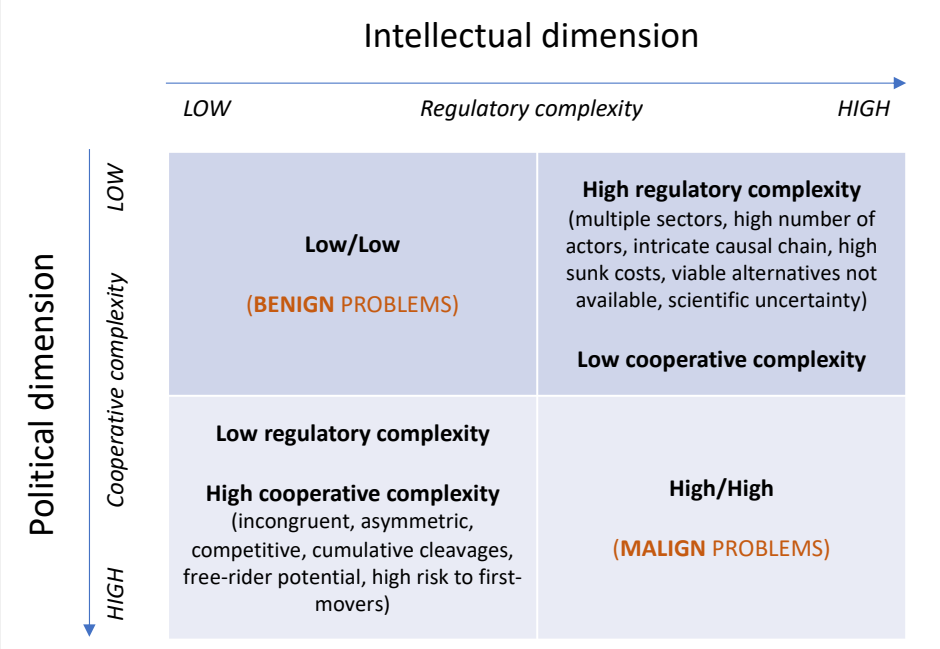
2.1 EXPLAINING EFFECTIVENESS

There is general agreement in the academic community that regime effectiveness can be explained from two main perspectives: i) the nature of the problem to be regulated, and ii) the properties of the regime.

2.1.1 THE NATURE OF THE PROBLEM

The nature of the problem can be analysed along two dimensions: an *intellectual* one and a *political* one. The intellectual dimension concerns how difficult it is to deal with the problem from a regulatory point of view, regardless of its international political properties.[28] The *regulatory complexity* tends to increase when the issue cuts across multiple sectors and a high number of actors are involved. An intricate causal chain further adds to the regulatory complexity, as does sunk costs and lack of viable alternatives. If, on top of that, there is scientific uncertainty about causes and effects, the intellectual dimension can make an environmental problem very difficult to tackle, even before the international political factors are considered.

Figure 1: **Two dimensions of an international environmental problem**



The political dimension deals with the configuration of interests and preferences among the players taking part in the relevant international regime. As such, it is an indicator of the *cooperative complexity* of a given problem. In a politically 'benign' problem structure, there are identical preferences and interests between the participants. Under such circumstances,

[28] In the words of Arild Underdal (2002, p. 15), finding an effective mix of (national) policy instruments for a given environmental problem requires "powerful theory, large amounts of accurate data, and the creative imagination and perseverance of skilled people."

the regime only has to provide proper coordination between actors involved. On the opposite pole there are strong differences regarding interests and preferences between the players. The problem is particularly difficult to deal with if there is incongruity, competition as well as cumulative (overlapping) political fault lines involved. Competition typically arises when the participants are concerned about relative gains.

The main assumption is that the more politically and intellectually malign a problem, the more difficult it is to put in place an effective international regime. Past research on regime effectiveness has by and large confirmed this assumption. For malign problems, effective regimes are more the exception than the rule.

2.1.2 THE PROBLEM-SOLVING ABILITY OF THE REGIME

The other explanatory perspective deals with the problem-solving ability of the regime. On the one hand, this is a question of regime design, notably the rules and procedures laid down in the legal framework underpinning it, and the structures set up to reinforce it. On the other hand, it is a function of the political and institutional skill and energy invested in the regime to deal with the problem. Power and leadership are closely associated with political feasibility; the outer boundaries of what can be achieved. As such, the problem-solving capacity of the regime can be seen as a function of rules, power, leadership, and institutional design.

2.2 THE PROBLEM OF MARINE PLASTIC POLLUTION

Applying the theoretical framework introduced above, marine plastic pollution can thus be analysed along two main dimensions: one intellectual and the other political.

2.2.1 THE INTELLECTUAL DIMENSION

The ubiquity of plastic means that the number of potential leakage points and sources of pollution is near infinite. Plastic can escape into the natural environment at all stages of the value chain, intentionally or unintentionally, and it can take any number of forms, from large fishing nets to tiny particles worn off car tires or textiles. This makes it a hard nut to crack for policy makers, not just internationally, but also on a national level.

2.2.1.1 Scientific uncertainty and technical complexity

Part of the challenge in regulating plastic pollution is technical or scientific. There is, for instance, considerable scientific uncertainty regarding leakage rates, sources, pathways, concentration levels and ultimate fates. A large share of the plastic entering the world's oceans every year is believed to be the result of littering and poor waste management, but most estimates are based on assumptions and extrapolations.[29] A considerable, but unknown, amount of plastic is also assumed to leak into the environment at the earlier stages of the value chain. Plastic pellets, powders and flakes can escape during production, conversion or transport to market. Some items, such as fishing-gear, are often unintentionally lost during their intended use. Again, precise estimates are hard to come by (as the data is difficult to obtain).

[29] See e.g., Lebreton and Andrady (2019), "Future scenarios of global plastic waste generation and disposal"; Jambeck et al. (2015); and Borrelle et al. (2020).

Knowledge about composition and concentration levels of plastic in the marine environment is gradually improving, as more studies are being undertaken and new measuring methodologies are being developed.[30] Still, current knowledge about the types of plastic products that tend to end up in the ocean and what happens to them when they do is quite rudimentary.[31] Apart from a few observation-based research projects, most data about product categories and material composition is drawn from coastal clean-up data, which is where the litter is easiest to gather. It is, of course, possible that the items collected on beaches around the world closely mirror the composition of items floating out in the ocean (or at the bottom of it, depending on buoyancy), but it is also possible, and even likely, that the composition of items along the coast is different from that of the high seas.[32]

The technical complexity of the issue is further exacerbated by the fact that much is still unknown about the long-term impacts of plastic pollution, including on human health, and about which plastic products pose the greatest environmental risk. Finally, the search for cost-efficient solutions to the problem is also likely to require—or at least benefit from—new technology and innovation,[33] which is another technical hurdle.

For many countries, plastic pollution might be perceived more as an economic problem, or a development problem, than a technical or scientific problem.

This suggests that marine plastic pollution would receive a relatively high score in terms of technical complexity. At the same time, the picture is arguably less bleak than it might first appear. For one, there is sufficient evidence available to conclude that marine plastic pollution is indeed a considerable environmental problem, and, in contrast to certain other environmental issues, there is no question as to whether the problem is caused by humans. In addition, many of the proposed solutions, such as improvement in waste management infrastructure or a phase-out of the most leakage-prone product categories, require little technological innovation. For many countries, plastic pollution might therefore be perceived more as an economic problem, or a development problem, than a technical or scientific problem.[34] And even if coastal clean-ups and beach counts have their shortcomings (as a basis for designing policy interventions), they do provide a benchmark and a foundation that can be gradually strengthened over time. Overall, therefore, marine plastic pollution should perhaps not be considered particularly malign in terms of technical complexity and scientific uncertainty—though some subcategories of the problem might be trickier than others.

[30] Eriksen (2014); Lebreton and Andrady (2019). See also Julien Boucher et al. (2019), "Review of plastic footprint methodologies: Laying the foundation for the development of a standardised plastic footprint measurement tool", International Union for the Conservation of Nature (IUCN).
[31] Eriksen (2014). See also Erik van Sebille et al. (2020), "The physical oceanography of the transport of floating marine debris", *Environmental Research Letters*, February 2020.
[32] Some global data on composition of beach litter already exists (see, for instance, Ocean Conservancy (2019), "The Beach and Beyond"), but to our knowledge, no global assessment with the level of detail used in the EU's baseline report has so far been produced.
[33] For instance, in the form of beverage bottle deposit return machines, molecular tracing, or eco-modelling of plastic products. Deposit return can, of course, be done manually, but that might not be sufficiently cost-effective for large scale implementation.
[34] Lebreton and Andrady (2019, p. 3) found a statistically significant negative correlation between GDP and fraction of mismanaged waste: The lower the GDP, the higher the share of municipal solid waste that is mismanaged. Though they also found, as expected, a significant *positive* correlation between GDP and municipal solid waste generation, meaning that rich countries generate much more waste per capita than poor countries.

2.2.1.2 Administrative complexity

Another part of the challenge of regulating plastic pollution is administrative, which concerns the ease with which national governments can introduce, implement and enforce effective policy measures to tackle the problem. Plastic is used in virtually all sectors of the economy, with leakage occurring at every stage of the value chain, from production, conversion, and transport to waste collection and disposal. Effective regulation is thus likely to require close collaboration and coordination across multiple sectors, various ministries and government agencies, and the involvement of a broad set of experts, industry actors, and other stakeholders. Another complicating factor is that waste management is often delegated to municipality level, which adds to the number of relevant administrative entities that needs to be involved.

Furthermore, most of the leakage sources are mobile (humans littering, for instance), and the specific acts or human behaviour that causes plastic to leak into the marine environment also vary. Yet a general distinction can be drawn between intentional discharge (e.g., dumping, littering, deliberate release) and acts that, directly or indirectly, cause unintentional leakage (e.g., accidents, spills, run-off, abrasion, or force majeure). The latter category would also include leakage caused by negligence, insufficient precaution, or lack of proper safeguards, which can result in plastic leaking into the environment during bad weather (discharge rates typically surge after storms)[35] or being pulled out of waste bins by birds and wild animals looking for food.

This indicates that plastic pollution, if all aspects of it are included, has a very high *administrative complexity*, and the fact that no country has managed to eliminate plastic pollution (i.e., reduce to zero) serves to confirm this.

2.2.1.3 Costs

A third aspect that makes the plastic pollution problem challenging to regulate concerns costs, which, in essence, is a question of how politically difficult (or easy) it is for national decision-makers to introduce and implement the policy measures required to solve the problem. For some countries, where waste management infrastructure is poorly developed, the investments required to prevent discharge of plastic waste into the environment can, from a government perspective, be prohibitively high. And for decision-makers in these countries, other issues, from poverty reduction to education and public health, are likely to take precedence on the list of political priorities. Pushing the cost of such infrastructure investments over to the consumer (e.g., through waste delivery fees or consumption taxes) can be tempting, but not necessarily politically appealing. It might be easier, in that case, to pass the bill to the private sector, for instance through extended producer responsibility (EPR) schemes—even if the burden is likely to trickle down to the consumer anyway.

For the more targeted policy measures, however, such as bans or marking requirements for certain product categories, financial considerations are less of a challenge from a government perspective. And as long as viable and affordable alternatives are available, a ban on certain high-risk products is unlikely to cause much fuss or political upheaval on the part of consumers. At the end of the day, however, the cost of an effective response to the

[35] See e.g., Hurley, Woodward and Rothwell (2018), "Microplastic contamination of river beds significantly reduced by catchment-wide flooding", *Nature Geosci,* 11, pp. 251–257.

problem will depend on the measures introduced, and some measures are likely to be more expensive (for consumers, private companies or governments) than others.

2.2.2 THE POLITICAL DIMENSION

Marine plastic pollution is a relatively complex problem along the intellectual dimension. But what about the political dimension? How difficult is it to solve in terms of collective action and cooperation among States?

2.2.1.4 Incongruity and national incentives

Marine plastic pollution could be said to constitute a typical example of an international cooperation problem, whereby the interests or cost-benefit calculations of each individual actor diverge from the interest of the collective. For the international community as a whole, the rational course of action would be to prevent the ocean from filling up with plastic debris. For each individual country, however, unilateral remediation measures can be prohibitively costly. Cooperation is therefore required.

Marine plastic pollution could be said to constitute a typical example of an international cooperation problem, whereby the interests or cost-benefit calculations of each individual actor diverge from the interest of the collective.

At the same time, the externality share (how much of the problem that is transboundary) of the plastic pollution issue is much lower than for many other pollution categories. According to one estimate, only 9% of mismanaged plastic waste is discarded in proximity to coastlines.[36] And though large amounts of plastic waste is carried to the ocean through large rivers, considerable quantities can also be assumed to linger within national jurisdictions. Even most beach litter have been found to come from domestic sources.[37] Contrast this with CO_2 emissions, for instance, which has a very high externality share (virtually no national-only effects).

One could therefore assume that individual States have an interest in minimizing leakage of plastic into the environment, including the marine environment, regardless of what other States choose to do. And doing so does not in and of itself reduce the competitive advantage for that country in plastic-related markets. As such, plastic pollution is not a particularly malign problem in terms of its collective-action potential.

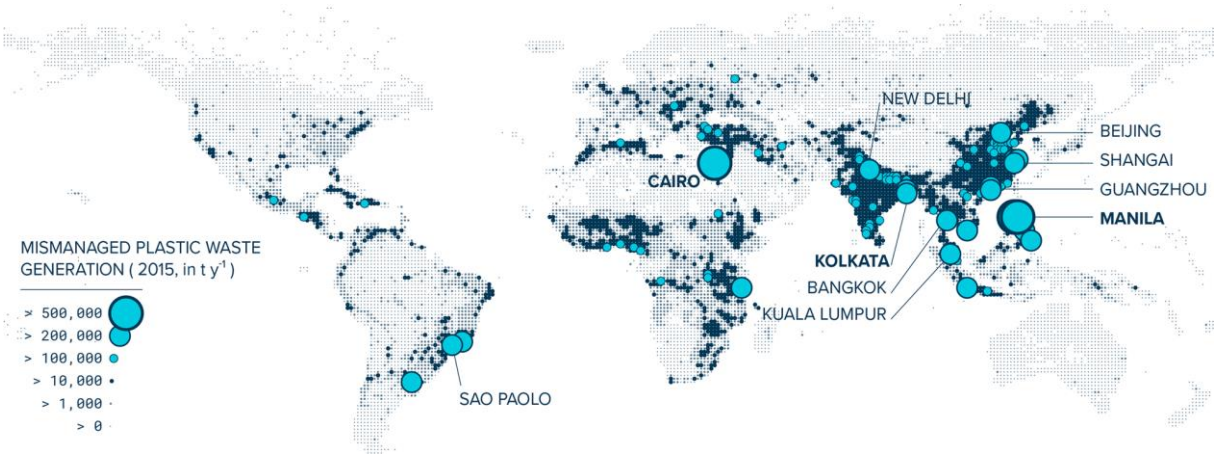
[36] Lebreton and Andrady (2019, p. 9).
[37] As an example, one study found that 77% of the geographical-identified items on Norwegian beaches originated within the country. Mepex (2020), "Deep dive into our plastic ocean", p. 6.

2.2.1.5 Asymmetry

Another aspect of the political dimension concerns asymmetry, which can serve to make an issue intractable. When it comes to leakage of plastic into the marine environment, there are considerable asymmetries between countries and regions, as Figure 2 (next page) illustrates.

What Figure 2 also shows, however, is that mismanagement of plastic waste is a problem all over the world. In fact, no country is completely without blame. All UN Member States generate a considerable amount per capita. And although global production is concentrated in certain markets (China, USA and Europe as the largest), plastic is also manufactured in all regions of the world.

Figure 2: Overview of estimated mismanaged plastic waste generation in 2015



Source: Lebreton and Andrady (2019)

In sum, the *cooperative complexity* (political dimension) of marine plastic pollution does not appear to be insurmountable. It is first and foremost a question resources (technical and financial) and of managing the development dimension of the issue. In terms of *regulatory complexity*, the main hurdle appears to be administrative; that is, to identify and implement cost-efficient national policy-measures, adapted to context, with a sound scientific basis, and about prioritizing and structuring the issue to make it more manageable (by source category, product category or otherwise).

CHAPTER 3

THE SUP DIRECTIVE AND THE EUROPEAN UNION'S APPROACH

3 THE SUP DIRECTIVE AND THE EUROPEAN UNION'S APPROACH

There is a range of EU legislation that to varying degrees has a bearing on the issue of marine plastic pollution (see Box 2). Given the high amounts of plastic that continues to wash up on European beaches, however, more focused efforts were considered necessary.[38] This led to the development and adoption of the *EU Directive on the reduction of the impact of certain plastic products on the environment* (SUP Directive) in 2019.

3.1 THE SUP DIRECTIVE

The SUP Directive is one of the few existing international legal frameworks specifically aiming to reduce plastic pollution in the marine environment.[39] It was published on 5 June 2019 and is part of a comprehensive approach aimed at achieving a more circular economy, including for plastics,[40] in the EU.[41]

The SUP Directive was developed in part because the impact of existing measures on marine litter was deemed insufficient, and that "there are differences in the scope and the level of ambition amongst national measures to prevent and reduce marine litter."[42]

> **"The Union must play its part in preventing and tackling marine litter and aim to be a standard setter for the world"**

In Recital 3 of the Directive,[43] it is recognized that "[m]arine litter is transboundary in nature" and that the EU "must play its part in preventing and tackling marine litter and aim to be a standard setter for the world."[44] In parallel, the EU has called for the development of a new global agreement to tackle the problem.[45] This call is, at the time of writing, supported by more than a third of the UN Member States.[46]

Importantly, the SUP Directive does not aim to tackle all marine litter, nor all plastic pollution. On the contrary, it is explicitly stated in Recital 7 that the Directive "should only cover those single-use plastics products that are found most on beaches in the Union as well as fishing gear containing plastic and products made from oxo-degradable plastic."[47] It is estimated that 86% of the single-use plastics products found on European beaches (by item count) are covered by the scope of the Directive, which in turn makes up around half of all the items found. With fishing-related items included, which makes up 27% of items found on beaches,

[38] As noted in Recital 10, the SUP Directive constitutes a "*lex specialis* in relation to Directives 94/62/EC and 2008/98/EC" (original emphasis).
[39] There is a long list of international legally binding agreements that directly or indirectly regulate marine plastic pollution, both on regional and global level. However, none of these are specifically designed to tackle plastic pollution. For a comprehensive overview, see UNEP (2017).
[40] EU Commission (2018), "A European Strategy for Plastics in a Circular Economy", January 2018.
[41] This is confirmed in Article 1, which makes clear that the Directive has a dual objective, namely, to prevent and reduce impact of certain categories of plastic pollution, and, secondly, to "promote the transition to a circular economy" (pp. 36). See also EU's Circular Economy Action Plan, of 2015.
[42] Directive (EU) 2019/904, Recital 6.
[43] The recitals are paragraphs of a legal document that explains its purpose. In multilateral treaties, this part of the text is usually referred as the preamble.
[44] Directive (EU) 2019/904, Recital 3.
[45] EU Council Conclusions on Biodiversity, 23 Oct 2020, which states that "The Council of the European Union, [...] 47. COMMITS to work towards a global agreement to reduce plastic marine litter".
[46] See the WWF Global Plastic Navigator's layer on policy.
[47] Directive (EU) 2019/904, Recital 7.

BOX 1: TYPES OF LEGAL ACTS IN THE EUROPEAN UNION

As with national level legislation, there are several types of legal acts used in the EU:

Treaties

The most fundamental rules of the EU are enshrined in 'treaties' (regular instruments of international law), including the objective of the Union, rules for institutions, and the relationship between the institutions and the Member States. EU Treaties are negotiated by all EU Members States and ratified by parliaments, and are sometimes also put to a referendum.

Regulations

EU 'regulations' are legally binding acts that are adopted following a specified procedure (involving the Commission, the EU Parliament and the European Council). Regulations are binding as soon as they enter into force, and do not require transposition into national law.

Directives

EU 'directives' are usually less specific than 'regulations', typically requiring Member States to achieve certain results without specifying precisely how those results are to be achieved. They tend to include reporting obligations and rules for transposition (typically with a 2-year deadline). If Member States do not comply with the rules of a directive, the Commission is mandated to "initiate infringement proceedings".

Implementing acts and delegated acts

The Lisbon Treaty introduced 'delegated acts' and 'implementing acts' as replacements for a range of implementing measures previously used. The former is intended to supplement or amend existing law (e.g. directives and regulations), while the latter is meant to promote uniformity in implementation. A key difference between the two types is that 'delegated acts' provide both the European Parliament and the European Council with a veto right, whereas 'implementing acts' can be passed without the involvement of the European Parliament. Both types are developed by the EU Commission.

Other legal acts

Other legal acts used in the EU include 'decisions' (binding in their entirety), 'recommendations' (non-binding expressions of view from an EU institution), and 'opinions' (non-binding statement from EU an institution).

(Sources: https://ec.europa.eu/info/law/law-making-process/types-eu-law_en; https://www.eipa.eu/delegated-act-or-implementing-act/)

the Directive covers approximately 70% of the marine litter in the EU.[48] This narrowing of the thematic scope is done in part to better "focus efforts where they are most needed".[49]

Specifically, the scope of the Directive is limited to the following three product categories:

1. *Single-use plastic products found on beaches*
2. *Fishing gear containing plastic*
3. *Products made from oxo-degradable plastics*

In the Directive, a basic distinction is drawn between plastic products for which "suitable and more sustainable alternatives" are available and affordable, on the one hand, and plastic products for which viable alternatives are not available, on the other. For the first of these categories, the basic and relatively simple approach is to ban the products in question

[48] Directive (EU) 2019/904, Recital 5.
[49] Directive (EU) 2019/904, Recital 7. Microplastics is also explicitly excluded from the scope of the Directive, even if their contribution to the problem is recognized (Recital 8).

(prohibit placing on the market). For the second category, a broader package of measures is introduced.

In the following, each of these policy measures are presented in summarized form.

3.1.1 CORE PROVISIONS

The core provisions of the Directive, which include control measures to be implemented by Member States, are spelled out in Articles 4 to 10. Each Article deals with a particular type of policy measures, and the product categories for which these policy measures apply are listed in the Directive's Annex.

3.1.1.1 Product bans

Article 5 of the SUP Directive, which concerns restrictions on products that can be placed on the market, contains one single sentence:

> Member States shall prohibit the placing on the market of the single-use plastic products listed in Part B of the Annex and of products made from oxo-degradable plastic.

Part B of the Annex, in turn, contains a nine-point list of single-use plastic products[50] that from 3 July 2021 are to be prohibited from being placed on the market in EU Member States.[51] The list includes items such as cotton bud sticks, cutlery, plates, straws, beverage stirrers, balloon sticks, and food/beverage containers made of expanded polystyrene.[52]

3.1.1.2 Other policy measures

For products where suitable and sustainable alternatives are not deemed to be available and affordable, the Directive introduces six main categories of policy measures:

a) Consumption reduction
b) Product requirements
c) Marking requirements
d) Extended producer responsibility
e) Separate collection
f) Awareness raising

a) Consumption reduction

Article 4 of the SUP Directive requires Member States to achieve, by 2026, "an ambitious and sustained reduction in the consumption" of two main categories of single-use plastic products, as listed in Part A of the Annex: i) cups for beverages (including covers/lids), and ii) food containers (other than those made of expanded polystyrene, which, as noted above, are prohibited under Article 5). The Directive does not specify *how* Member States shall achieve

[50] The term 'single-use plastic product' is defined in Article 3, as is the term 'plastic', with reference to Regulation (EC) No 1907/2006. While seemingly clear, it has been suggested that the definition of term plastic, and the exception provided for "natural polymers that have not been chemically modified", might create loopholes or cause a shift in the use of certain materials (e.g., increased use of viscose) that would run counter to the intention of the Directive. For a discussion on this, see Simon Hann et al. (2020), "What is Plastic? A Summary Report Exploring the Potential for Certain Materials to be Exempted from the Single Use Plastics Directive", Eunomia/Reloop, January 2020.
[51] Deadlines are specified in Article 17 on transposition.
[52] Exceptions are made for some of these product categories.

the reduction, other than to state that it must be “measurable” and “quantitative”. Nor does the Directive define the terms “ambitious and sustained”.

EU Member States are, however, required to report on the measures adopted, and Article 4 also provides examples of possible measures (national reduction targets, making reusable alternatives available, or economic instruments). The methodology for the calculation and verification of the reduced consumption is to be developed by the EU Commission.[53]

b) Product requirements

Article 6 of the Directive introduces two types of product requirements, both relating to beverage containers (including bottles) with a capacity of up to three litres. The first requirement concerns the caps and lids of these products, which must “remain attached to the containers during the products’ intended use stage.” Harmonized standards relating to the necessary strength, reliability and safety of the products are to be developed by the European Standardisation Organisations. The rationale behind this requirement is that plastic caps and lids for beverage containers “are among the single-use plastic items that are found the most on beaches in the Union.”[54]

The second product requirement under Article 6, which also applies to beverage bottles only, concerns the share of recycled content in these products. From 2025, EU Member States are required to make sure that bottles made of polyethylene terephthalate (PET) contain at least 25% recycled plastic. From 2030, the threshold increases to 30% and will cover all single-use beverage bottles made of plastic (not just PET).

c) Marking requirements

Article 7 concerns single-use plastic products that are particularly prone to inappropriate disposal, including through the sewer system. The four product categories in question (listed in Part D of the Annex) are sanitary towels/tampons, wet wipes, tobacco products with filters, and cups for beverages (which are also subject to consumption reduction targets). Article 7 requires Member States to make sure that all such products bear “a conspicuous, clearly legible and indelible marking on its packaging or on the product itself”. The marking must inform consumers of the presence of any plastic, the effects of leakage into the environment, and of options for safe disposal.[55]

In December 2020, the EU Commission adopted, in accordance with Article 7(2) of the Directive, an implementing act which specifies the details of the harmonized marking requirements for the products listed in Part D of the Annex, including information about font sizes, colours and shapes of the markings (See example in Figure 3 on next page).[56]

The reason for introducing marking requirements on these products is that the high leakage rates of these particular product categories are assumed to be caused, to a large extent, by a lack of awareness on the part of the consumer.[57] And, as a consequence, that leakage rates

[53] At the adoption of the Directive by the European Council, the EU Commissions expressed concern about the short deadlines for the adoption of implementing acts. See EU Council official document 8741/19 ADD 1.
[54] SUP Directive (Directive (EU) 2019/904), Recital 17.
[55] Article 7 also specifies that the marking requirements for tobacco products comes in addition to those required by Directive 2014/40/EU, which inter alia requires health warnings on tobacco products.
[56] Commission Implementing Regulation (EU) 2020/2151 of 17 December 2020.
[57] Directive (EU) 2019/904, Recital 20.

could be expected to drop if consumers had a better understanding of the negative effects of their actions.

Figure 3: From 3 July 2021, all tobacco products with filters placed on the marked in the EU are to be marked with this label (language of text subject to national adjustments).

d) Extended producer responsibility

Article 8 of the Directive concerns extended producer responsibility (EPR) schemes, defined (in the waste Directive) as "a set of measures taken by Member States to ensure that producers of products bear financial responsibility or financial and organizational responsibility for the management of the waste stage of a product's life cycle."[58] The Directive requires Member States to ensure that EPR schemes are established for a list of specific single-use plastic products (Part E of the Annex), as well as for fishing gear containing plastic.

Article 8 also details certain types of costs that are to be covered by the producers[59] of the products in question. This includes, for instance, costs related to awareness raising, waste collection and cleaning up of litter. See Table 1 below for an overview of the costs that producers of the various product categories are required to cover.

[58] Waste directive (Directive 2008/98/EC), Article 3(21). The Waste Directive also outlines minimum requirements for the design of such schemes are outlined in the waste Directive (Articles 8 and 8a). Note that Article 8a was added through an amendment in 2018. For ease of reference, the consolidated version of the directive contains all the latest amendments (though the document does not have legal effect)

[59] The term 'producer' is defined in Article 3 (11) of the SUP Directive and includes any natural or legal person that "professionally manufactures, fills, sells or imports".

Table 1: Costs to be covered by the producers of certain plastic products

	EPR schemes to be established for the following product categories (in accordance with waste directive, Art. 8 and 8a)	**Awareness raising**	**Waste collection** (for items discarded in public collection systems)	**Separate collection** (of delivered waste)	**Clean-up of litter** (including transport and treatment, Commission to publish guidelines for cost calculation criteria)	**Data gathering and reporting**
Part E of Annex	**Section I** • Food containers • Packets and wrappers • Beverage containers • Cups for beverages • Lightweight plastic carrier bags	x	x		x	
	Section II • Wet wipes • Balloons	x			x	x
	Section III • Tobacco products	x	x		x	x
Not in Annex	• Fishing gear containing plastic	x		x		

e) Separate collection

Article 9 of the Directive establishes binding targets for the separate collection[60] of all single-use plastic items listed in Part F of the Annex, which currently only includes one product category: beverage bottles with a capacity of up to three litres.[61] By 2025, EU Member States must ensure the separate collection for recycling of a minimum of 77% of such bottles by weight.[62] By 2029, the minimum rate increases to 90%.

To achieve those targets, the Directive lists two possible measures that Member States may choose to implement: i) the establishment of deposit-refund schemes, or ii) separate collection targets for relevant EPR schemes. It is, however, up to the Member States to decide how to ensure that the targets are reached.

[60] 'Separate collection' is understood as "collection where a waste stream is kept separately by type and nature so as to facilitate a specific treatment", as defined in point 11 of Article 3 of Directive 2008/98/EC.
[61] Including caps and lids, but not if the bottle is made of metal or glass. Exceptions are also made for bottles intended for special medical purposes.
[62] The SUP Directive uses the term "equal to", which might indicate that 77% is also maximum. One could assume, however, that no such upper limit exists, and that Member States are allowed to achieve higher rates than the threshold specified.

f) Awareness raising

The final category of control measures in the Directive (Article 10) concerns awareness raising. The basic assumption is that consumer awareness is a key factor when it comes to littering, and that if consumers were better informed about leakage risk, as well as options available for reducing that risk, less plastic would end up in the environment.[63]

Article 10 applies to all the single-use plastic product categories included in the scope of the Directive (listed in Part G of the annex), except the three that are banned under Article 5, and requires Member States to take measures to inform consumers of two main things:

1) the "availability of alternatives, re-use systems and waste management options"; and

2) the impact of littering and other inappropriate waste disposal, both on the environment—in particular the marine environment—and on the "sewer network".

Article 10 does not, however, specify how this awareness raising should be achieved, or what those measures should entail. Nor does it specify the level of information consumers ought to have for the obligations of Member States to be fulfilled.

Figure 4: Summary of measures by product category

	Consumption reduction	Market restriction	Product design requirement	Marking requirements	Extended producer responsibility	Separate collection objective	Awareness raising measures
Food containers	X				X		X
Cups for beverages	X				X		X
Cotton bud sticks		X					
Cutlery, plates, stirrers, straws		X					
Sticks for balloons		X					
Balloons				X	X		X
Packets & wrappers					X		X
Beverage containers, their caps & lids			X		X		X
- Beverage bottles			X		X	X	X
Tobacco product filters					X		X
Sanitary items: - Wet wipes				X	X		X
- Sanitary towels				X			X
Lightweight plastic carrier bags					X		X
Fishing gear					X		X

Source: EU Commission[64]

[63] SUP Directive (Directive (EU) 2019/904), Recital 28.
[64] EU Commission, "Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the reduction of the impact of certain plastic products on the environment", COM/2018/340 final - 2018/0172 (COD), p. 3.

3.1.2 SUPPORTING PROVISIONS

The remaining articles of the Directive (Articles 11–19) contain supporting and technical provisions regarding coordination between Member States, the development of guidelines, reporting requirements, penalties, evaluation and review, transposition, and entry into force.

3.1.1.3 Information and reporting

For each calendar year, Member States are required to report to the Commission information and data relevant for the implementation of the core provisions of the Directive. As outlined in Article 13, the reports must include data on single-use plastic products and fishing gear placed on the market; data on separate collection rates and recycled content in beverage bottles; and measures taken to reduce consumption of certain single-use plastic products (as

BOX 2: OTHER RELEVANT EU REGULATION

In addition to the SUP Directive, the EU has a broad range of existing regulations that in one way or another have bearing on the issue of marine plastic pollution. Central among these is the 2008 Waste Framework Directive, which outlines a set of rules and principles for waste management.

The waste directive further introduces a set of targets that EU Member States are required to comply with. By 2025, for instance, a minimum of 55% (by weight) of household waste such as paper, metal, glass and plastic will have to be prepared for re-use and recycling. The share will increase gradually (with 5-year benchmarks) up to 65% by 2035. As noted above, the waste directive also outlines a basic set of rules for EPR-schemes, including the possibility of fee modulation.

Also of relevance is the 1994 packaging and packaging waste directive, which aims to minimize the negative environmental impact of packaging. The packaging directive was updated in 2015 with specific rules aimed at limiting the consumption of lightweight plastic carrier bags, and again in 2018 with new recycling targets for materials used in packaging. By 2025, a minimum of 50% of plastic used in packaging must be recycled, a threshold that will increase to 55% by 2030. The European Strategy for Plastics, adopted in January 2018, also includes a goal of ensuring that, by 2030, all plastic packaging placed on the EU market is re-usable or easily recycled.

The Marine Strategy Framework Directive (MSFD) is another EU legal act with bearing on plastic pollution. The directive does not mention plastic specifically, but it requires Member States to develop and implement strategies for the protection of the marine environments for which they are responsible, which includes tackling marine litter. The MSFD also requires Member States to gather and report data on the status of the marine environment, which serves to strengthen the basis for evaluating the impact and progress also of the SUP Directive.

The Directive on Port Reception Facilities is also an integral part of the EU's effort to reduce marine plastic pollution. It includes, for instance, provisions for the separate collection of waste from ships, such as derelict fishing gear. It also introduces a cost recovery system with indirect port fees, intended to minimize the incentives for ships to discharge waste at sea. The purpose of the indirect fees is to divide the cost of receiving and handling ship waste among all the users of the port, regardless of whether any waste is delivered. As a result, ships do not incur any additional cost if they deliver waste at the port, meaning there is little to gain economically from dumping the waste at sea.

Finally, the Commission is considering various options for how to prevent the release of microplastics into the environment. As part of this, the Commission is in the process of preparing a proposal, based on a report by the European Chemical Agency, that would restrict the use of intentionally added microplastics in a range of products placed on the market in the EU.

per Article 4(1)). The format in which this information should be reported will be specified by the Commission through implementing acts.[65]

Members are further required to inform the Commission of the "laws, regulations and administrative provisions" they bring into force to comply with the Directive (Article 17). The deadline for bringing the necessary national regulatory measures into force is 3 July 2021 (except for Articles 6(1) and 8, which are not required until 2024).

3.1.1.4 Evaluation and review

Article 15 stipulates that by mid 2027, an evaluation of the Directive is to be carried out. This will be done by the Commission, mainly based on the data submitted by Member States through their annual reports. A report summarizing of the findings of the evaluation will then be submitted to the European Parliament, accompanied, "if appropriate", by a legislative proposal that may include "binding quantitative reduction targets and set binding collection rates for waste fishing gear."[66] The report will also consider the need for a review of the items listed in the Annex.

3.2 MAIN FEATURES OF THE SUP DIRECTIVE'S APPROACH

Several features stand out in the approach taken by the EU to combat marine plastic pollution, from how the problem is framed to how policy measures are designed, and obligations are formulated. The most notable, however, is the choice of scope.

3.2.1 THE FRAMING OF THE PROBLEM

The rationale for developing the SUP Directive, as outlined in the Directive's recitals, was that existing efforts aimed at preventing litter from ending up in the environment, in particular the ocean, were considered inadequate. Secondly, it was recognized that to achieve a circular economy for plastics, the leakage of plastic into nature would have to be prevented. In combination, this provides the basis for the dual objective of the Directive, as formulated in Article 1:

> …to prevent and reduce the impact of certain plastic products on the environment, in particular the aquatic environment, and on human health, as well as to promote the transition to a circular economy with innovative and sustainable business models, products and materials, thus also contributing to the efficient functioning of the internal market.

As noted, the SUP Directive is not designed to achieve the elimination of *all* discharge of plastic into the marine environment—something UN Member States agreed to as a long-term goal at the third session of the UNEA in 2017.[67] Rather, the starting point for the SUP Directive is a mapping and categorization of the litter items *most frequently found in the marine environment* (estimated on the basis of beach litter counts, the most reliable source available).

From a regime effectiveness perspective, this choice of thematic scope is interesting because it serves to reduce the regulatory complexity of the issue. As noted in chapter 2,

[65] Article 13(4).
[66] Article 15(2).
[67] See UN official document UNEP/EA.3/Res.7, para. 1.

plastic pollution is an issue where there is still considerable technical and scientific uncertainty (e.g., about leakage rates, concentration levels, causes, and effects). By accepting a rudimentary but extensively used measurement as the basis for choosing its regulatory response, the EU has largely bypassed the problem of scientific uncertainty,[68] even if that means that some products categories may escape scrutiny (e.g., because they tend to sink to the ocean floor instead of washing up on beaches).[69]

With beach litter counts as the basis, leakage rates by source or pathway thus become less important, partly because these can be estimated, to some extent, based on the use-pattern of each product category (e.g., wet wipes typically thrown in the toilet, bottles typically being littered) but also because the drivers of the problem (higher up the causal chain) are considered more relevant in policy-making terms than the particular route a piece of plastic takes in order to end up in the ocean.

The effect of this is that the administrative complexity is also vastly reduced, since regulators do not have to worry about tailor-making policy measures for each source or pathway. The narrow scope also limits the number of sectors involved (construction, transport, agriculture, and textiles are excluded), and thereby the number of actors. Moreover, it essentially takes the issue of poor waste management systems off the table. Broad measures aimed at improving waste management systems would be extremely blunt and disproportionate in light of the objective and scope of the Directive, at least in areas where waste management systems are relatively functional. That, in turn, greatly reduces the cost of implementation for national governments.

Finally, the narrowly defined scope, with its manageable list of specific product categories, makes the task of designing specific, targeted, cost-efficient and verifiable policy measures much easier. There are evidently also certain drawbacks with the choice of scope for the SUP Directive. What the SUP Directive does not do, for instance, is to cover items that are too small to be counted on beaches (e.g., microplastics),[70] but the idea is that these item categories will be dealt with through other regulatory processes in the EU (see Box 2).

3.2.2 DESIGN OF THE POLICY MEASURES

The item-based approach used to define the scope of the Directive carries on into the design of the policy measures introduced. As noted above, the scope of the Directive is limited to the following three product categories:

1. *Single-use plastic products found on beaches.*
2. *Fishing gear containing plastic.*
3. *Products made from oxo-degradable plastics.*

[68] The impact assessment accompanying the proposal for the Directive does recognize the importance of evaluating product categories based on risk, but also notes that "there is no specific literature available yet that differentiates the impacts of the different items under examination in this impact assessment", and concludes that "it is not possible to provide a statistical analysis of the relative harm caused by each of the Top 10 SUP items individually". See European Commission Staff Working document "IMPACT ASSESSMENT, Reducing Marine Litter: action on single use plastics and fishing gear", SWD(2018) 254 final, PART 1/3, pp. 17-18. See also Table 4 of the same impact assessment (p. 24), which contains an assessment of the impacts of the top 10 items. More information about relative risk of different categories of plastic litter is gradually emerging. See, for instance, Lauren Roman et al. (2020), "Plastic pollution is killing marine megafauna, how do we prioritize policy to reduce mortality?", *Conservation Letters*, December 2020.

[69] See, for instance, https://www.grida.no/resources/6930.

[70] Recital 8 specifies that a comprehensive approach to the problem of microplastics should be adopted.

Based on this list of product categories, tailored policy measures are then designed, according to a principle of proportionality.[71] The Directive specifies that it should not go beyond what is necessary to achieve its objectives. This means that the policy measures are tailored to suit each specific subcategory of plastic products. This is not to say that all the policy measure should be expected to be equally effective, however. And the Directive arguably reveals a certain hierarchy of preferred measures. The most effective measure, on paper, is the ban on placing items on the market. Provided that the ban can be enforced, and that the alternative materials introduced do not simply shift the environmental damage to another area,[72] the ban is appealing because it is relatively easy to monitor, it is unambiguous, and it is measurable.

The most effective measure, on paper, is the ban on placing items on the market.

Below the ban in the policy measure hierarchy are, presumably, the product design, marking requirements and separate collection. The effectiveness in terms of changed behaviour (outcome) is less direct than for the ban, but they are specific, monitorable and verifiable. That is, to some extent, true also for the EPR schemes, but for that particular policy measure (or package of measures), the causal link between behaviour change (output) and impact is less evident, even if the items to be covered by EPR schemes are still those defined in the scope of the Directive.

The core provisions that appear to be the least targeted, and thus have the lowest expected effectiveness (output x outcome x impact) are the ones focused on consumption reduction and awareness raising. For both of these, EU Member States are required to take (necessary) measures to achieve a certain target, but the Directive does not specify how this is to be achieved (though suggestions are provided), and the targets that are to be achieved are also relatively vague.[73]

3.2.3 REPORTING, EVALUATION AND GRADUAL STRENGTHENING

The Directive's supporting provisions logically follows the same pattern as the scope and the policy measures. This means that Member States are only required to report data that is relevant for the implementation of the Directive and the achievement of the overarching objective. There is no requirement to develop national action plans, for instance. However, for the consumption reduction measures (results-oriented, but without binding quantitative targets) Member States must inform the Commission of the measures they plan to take in order to comply with the provisions of the Directive.

[71] See e.g., Recitals 25 and 36.
[72] Ideally, the ban would lead to reduced consumption of those single-use products (regardless of material), or to a switch to reusable alternatives, but that will depend on how Member States choose to implement the measure.
[73] Article 4(1) ends by indicating that, in part, the purpose of the monitoring and reporting on measures taken is to develop, at some point, "binding quantitative Union targets for consumption reduction." As such, Article 4 on consumption reduction can be understood as an effort to prepare the ground for more specific requirements in the future, if or when it becomes clearer what the most cost-efficient measures are, or what those binding targets should be.

CHAPTER 4

RELEVANCE OF THE SUP DIRECTIVE FOR THE DESIGN OF A GLOBAL TREATY

4 RELEVANCE OF THE SUP DIRECTIVE FOR THE DESIGN OF A GLOBAL TREATY

For policymakers, setting up a new and effective global environmental regime is undoubtedly a challenging task, and different in many ways from adopting and implementing a narrowly defined and issue-specific EU Directive. Yet, it is worth considering whether there are elements of the regulatory approach taken by the EU that could be adapted to a global level.

4.1 FRAMING, OBJECTIVE, AND SCOPE

One of the first steps in the process of negotiating any new treaty is to develop a shared understanding of the issue of main concern. What exactly is the problem that the international community is trying to solve? How should it be defined? And what should the new legal framework aim to achieve?

4.1.1 FRAMING

In the UNEA-process, the problem has been framed primarily as a marine litter issue. All four UNEA-resolutions adopted to date have included the word 'marine' in the title, combined with a formulation of either 'litter', 'plastic debris', or 'plastic litter' (and ending with 'microplastics').[74]

In several recent policy documents on the need for a new global treaty, however, including in the 2020 Nordic report on possible elements for a new global agreement, the word 'marine' has been dropped.[75] The rationale for doing so is presumably that the leakage of plastic into the environment is seen as a problem regardless of where it ends up, and that an effective response to the issue requires a "life-cycle approach".[76] In that perspective, an exclusive focus on the plastic that happens to accumulate in the ocean can be perceived as too narrow, and "may fail to incorporate key land-based upstream sources and corresponding mitigative measures, such as sustainable design, production, and consumption."[77]

When it comes to choosing between the marine and the non-marine types of plastic pollution, the EU seems to have landed on something of a hybrid. The issue is framed as one of plastic pollution in general, but with an extra emphasis on the marine environment.[78] A compromise along those lines might also be a workable solution for a global treaty, with the benefit that it would retain a link to existing UNEA-resolutions, while at the same time signalling that plastic pollution is not exclusively an ocean issue. As long as there is a risk that a piece of plastic litter, in any corner of the globe, could potentially end up in another country or beyond national jurisdiction, be it in the form of marine litter or in the form of airborne particles, plastic pollution could be considered inherently transboundary. And that provides a rationale for the international community to regulate it. Such a framing might also make the issue appear more relevant for land-locked countries.

The EU approach deviates somewhat from the UNEA-framing in another respect as well, in that it explicitly situates the plastic pollution problem within a broader circularity-nexus. As

[74] For a compilation of all four resolutions, see UN official document UNEP/AHEG/2019/3/INF/2.
[75] See for instance, https://www.nordicreport2020.com, https://www.ciel.org/reports/convention-on-plastic-pollution-toward-a-new-global-agreement-to-address-plastic-pollution/, https://www.plasticpollutiontreaty.org.
[76] Nordic Council of Ministers (2020), "Possible elements of a new global agreement to prevent plastic pollution", pp. 22, 28, 32.
[77] Yangzhao Sun et al. (2021), "How Can the Scope of a New Global Legally Binding Agreement on Plastic Pollution to Facilitate an Efficient Negotiation Be Clearly Defined?", *Environmental Science & Technology*, Articles ASAP (Viewpoint).
[78] See e.g., Recital 1 of the SUP Directive, or Council conclusions on Oceans and Seas, document no. 14249/19, 19 November 2019, para. 45.

stated in Recital 1 of the SUP Directive, “the steady increase in plastic waste generation and the leakage of plastic waste into the environment, in particular into the marine environment, must be tackled in order to achieve a circular life cycle for plastics.” In other words, stopping plastic pollution is seen as a tool for achieving a circular economy. In the UNEA-resolutions, by contrast, the circular economy is hardly mentioned.[79]

4.1.2 OBJECTIVE

The framing of the problem is relevant for the formulation of the rationale for the SUP Directive, just as it is in making the case for why a new global treaty is needed. It also forms the basis for the articulation of the long-term goal. For the SUP Directive, this resulted in a dual objective (Article 1) that combines tackling plastic pollution with the promotion of a circular economy. Based on the official documents adopted so far under the auspices of UNEA, getting sufficient support for such a dual objective in a new global treaty could be an uphill battle. But there is a good chance that at least some States will argue in favour of such an approach.

It is also worth noting that the need to reduce the amount of plastic already in the ocean (clean-up, recovery) is not reflected in the official objective of the SUP Directive. The onus is on prevention and on circularity. And apart from a few formulations about the need for EPR-schemes to cover the cost of clean-up (Article 8), it does not include specific obligations for Member States when it comes to removal of plastic from the ocean (or other marine environments). The issue of clean-up does not feature prominently in the UNEA-resolutions either; it is mentioned primarily as something governments are encouraged to engage in.[80]

Should the negotiators of the new treaty wish to include the removal of plastic pollution from the ocean as part of the objective of a new global treaty, the SUP Directive might therefore not be the right place to look for inspiration. For this, more relevant examples could be found in regional frameworks like the Barcelona Convention and its protocol on land-based sources,[81] or in global conventions such as the UNFCCC with its focus on balancing emissions and removals (and the associated concept of net-zero emissions).[82]

4.1.3 SCOPE

As noted in the previous chapter, the advantage of narrowing down the scope of application to a specific list of items, as done in the SUP Directive, is that it makes it much easier to develop targeted, cost-efficient, and uniform rules and regulations. In principle, a similar approach could also be used at a global level. As such, the SUP Directive is a useful example of how the regulatory complexity of the plastic pollution issue can be reduced by identifying and prioritizing a set of product categories, and tailor-making policy measures for each of these.

The drawback of narrowing down the scope of the new agreement to the most leakage prone and high-risk product categories is, of course, that a certain share of the plastic entering the

[79] “Circular economy” and the “sustainable management of plastics through their life cycle” is mentioned once in the preambular section of the fourth UNEA-resolution from 2019 (UNEP/EA.4/Res.6, preambular para. 5).
[80] See e.g., UNEA resolution 1/6, para. 17, and UNEA-resolution 2/11, para. 10.
[81] See e.g., Article 1 of the 1980 Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS Protocol).
[82] See Article 2 of the 1992 UN Framework Convention on Climate Change. The term “net zero” is not articulated in either the UNFCCC or the Paris Agreement, but Article 4(1) of the Paris Agreement includes a formulation that can be interpreted as a net zero goal, presented as a “balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases”.

ocean will be left out of the new regime, at least initially. And if the long-term goal of the international community is to eliminate discharge of "plastic litter and microplastic into the ocean",[83] restricting the scope of application to only the most problematic product categories could be perceived as insufficiently ambitious. Others might retort that the goal of eliminating all discharge of plastic into the ocean, even in the long run, suffers from a lack of realism, and, secondly, that a scope of application is not the same as a long-term vision. The scope is the operationalization of the overarching objective. It signals a willingness and an ability to prioritize.

4.2 POLICY MEASURES

In principle, it would be possible to transpose the full suite of policy measures introduced in the SUP Directive to a global level (both the rules-oriented and the results-oriented provisions). This would mean, for instance, that cotton bud sticks, cutlery, plates, straws, and beverage stirrers made of plastic would be banned globally. It would then also be prohibited to make food and beverage containers made of expanded polystyrene available on the market in any of the States Parties to the new treaty. EPR schemes would be required for single-use plastic bags (which are already subject to bans or taxation in more than 100 countries),[84] packets and wrappers made from flexible plastic material, and food containers made for immediate consumption. And sanitary towels/tampons, wet wipes, and tobacco products with filters would all have to be marked with conspicuous and clearly visible labels informing consumers about the pollution risks of those products.

Even if it is too early to draw any conclusions about the effectiveness of the SUP Directive, it is not unreasonable to assume that a global application of the policy measures included in the Directive could have a positive effect on the leakage rates of plastic into the world's oceans. It could also have a positive effect in terms of harmonizing definitions (e.g., of single-use plastic carrier bags), standards and requirements on a global level. One should bear in mind, however, that the policy measures introduced in the SUP Directive—from the consumption-reduction requirements in Article 4 to the awareness raising measures in Article 10—have been tailormade to tackle the specific scope of that Directive. And the scope, in turn, is developed on the basis of a region-specific assessment of the problem. In other words, it is by no means certain that a global assessment of the problem, even if based on the same method of counting litter items on beaches, would produce the same list of prioritized product categories as the one defined in the SUP Directive. And even if it turns out that the composition of beach litter in Europe closely mirrors that of the global level, it would still be important, not least in terms of legitimacy, to ground globally applicable policy measures on an actual assessment of the problem on a global scale.

The policy measures in the SUP Directive are also tailored to achieving the dual objective of the Directive, as noted above. And if the new treaty ends up formulating an objective that does not include the promotion of a circular economy for plastic, some of the policy measures introduced in the SUP Directive run the risk violating the principle of proportionality. It would, at the very least, be important to demonstrate a reasonable causal

[83] UNEP/EA.3/Res.7, para. 1.
[84] See e.g., Rachel Karasik et al. (2020) "20 Years of Government Responses to the Global Plastic Pollution Problem: The Plastics Policy Inventory", NI X 20–05. Durham, NC: Duke University; UNEP (2018), "Legal limits on single-use plastics and microplastics"; UNEP (2018), "Single-use plastics: A roadmap to sustainability".

link between the requirements introduced and the expected effect in terms of reduced leakage rates.

It would seem, for instance, that the requirement for minimum recycled content in beverage bottles in Article 5 is included mainly to contribute towards the second objective of the Directive, namely the achievement of a more circular economy for plastic. At the same time, one could argue that a minimum requirement for recycled content could be expected to boost the residual value of plastic (PET in this case), which in turn is likely to incentivize increased collection rates. Indirectly, the recycled content requirement might therefore also help reduce the amount of uncollected or littered waste. If this measure is to be included in a treaty that does not explicitly aim to promote circularity, however, it would be important to demonstrate, with some level of confidence, that there is a credible causal link between the share of recycled content and the leakage risk of that product.

The policy measures introduced in the SUP Directive are generally quite specific, unambiguous, and verifiable. There is hardly any use of the word 'should' (except in the recitals) and few qualifiers. Every single one of the core provisions of the Directive (Articles 4–10) start with the phrase "Member States shall". The Directive also abides by the principle of proportionality, which means it does not go beyond what is needed to achieve its objective. The Directive is nearly void of aspirational formulations and non-binding ambitions that Member States are encouraged to pursue. There are good reasons for wanting to replicate this precision-level in the new global treaty. Of course, the SUP Directive is not the only example of a proportionate, specific, and unambiguously formulated international legal framework. That is one of the strengths of the Montreal Protocol as well.[85]

Finally, it is worth reiterating that the SUP Directive is not the only EU regulation with a bearing on the issue of marine plastic pollution (See Box 2). The Packaging Directive, the Waste Directive, the MSFD, and the Directive of Port Reception Facilities all contribute, directly or indirectly, to reducing the amount of plastic that ends up leaking into the environment. The same could, of course, be said for the global level. There is a long list of existing legal frameworks that, in one way or another, play a role in preventing plastic from ending up in the ocean.[86]

Even so, negotiators of the new treaty will evidently have to consider whether there are gaps in the current international legal landscape that the policy measures used in the SUP Directive would not address. In a global treaty it would make sense to provide an avenue for the development of specific policy measures aiming to tackle these aspects of the problem, for instance in the form of issue-specific protocols. One might also consider splitting up the issues included in the SUP Directive, and, for instance, treat fishing-related items separately from single-use plastic products. If so, and a dedicated protocol on fishing-related items or sea-based sources of plastic pollution is to be developed, it might make sense to involve other parts of the multilateral system working on similar issues, for instance the International Maritime Organization (IMO) and Food and Agriculture Organization (FAO).

[85] See e.g., Article 3 of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.
[86] For a comprehensive overview of existing frameworks, see UNEP (2017).

4.3. WHY THE SUP DIRECTIVE CANNOT BE A BLUEPRINT FOR A GLOBAL AGREEMENT

Despite all the advantages of the approach taken by the EU, there are important reasons for not considering the SUP Directive as a direct blueprint for a new treaty on marine plastic pollution. First, there is no global equivalent to the EU Commission, with its "autonomous powers to monitor member state compliance and to engage judicially binding sanctions."[87] In contrast, international treaties are based on voluntary cooperation and no similar enforcement mechanisms, in which "non-compliance is a matter to be addressed and settled between treaty-signatories."[88] One implication of this is that global agreements tend to be less effective than directives adopted at the EU level. This can be illustrated by contrasting the climate polices of the EU with the global UNFCCC regime. While the EU, not least thanks to the strong role of the Commission, has been able to reduce greenhouse gas emissions considerably, this has not happened globally. Although progress has been made by the evolving climate regime, global CO_2 emissions are more than 60% higher than when the process started some 30 years ago.[89]

Secondly, while there are 27 Member States in the EU, there are close to 200 potential parties to a global agreement. There are strong differences of interests within the EU on environmental policies, both along the East-West dimension as well as the North-South dimension. Nevertheless, these differences are minor compared to the vast differences existing globally in terms of interests, priorities, will and ability to deal with environmental challenges.

Together these factors illustrate that it will be much more challenging to establish an effective global marine plastic treaty than it has been to establish the SUP Directive. In short, whatever clever design features are introduced, the sobering message is that it cannot be expected to be as effective as the EU approach.

4.3 NO 'QUICK FIXES'

MEAs tend to make a positive difference. That is, using the contrafactual line of thought, the global environment would have been in a worse situation had it not been for these agreements.

The not so good news is that the global environmental problems the agreements have been set up to deal with are seldom if at all fully solved. Although there are strong variations in their effectiveness, reflecting both stark differences in the underlying problem structure as well as their problem-solving ability, the overall picture is quite bleak. The UN Environment Programme (UNEP) Global Environmental Outlook 5 (2012) assessed 90 of the most important UN environmental goals and found that *significant* progress has been made in only four. *Some* progress was shown with respect to 40 of the goals while *little or no* progress was detected for 24 of the goals. This picture fits well with empirical findings from the effectiveness literature.[90]

[87] Stine Andersen (2012), *The Enforcement of EU Law*, University Press 2012, p. 13.
[88] *Ibid*.
[89] Steinar Andresen (2019), "The Paris Agreement and is rulebook in a problem-solving perspective", *Climate Law,* 9, 122-136.
[90] Edward Miles et al. (2002), *Environmental Regime Effectiveness: Confronting Theory with Practice*, MIT Press; Helmut Breitmeier et al. (2006), *Analyzing International Environmental Regime, From Case Study to Database,* MIT Press.

Research also show that instant success is rare. It takes time to build effective and robust international governance structures. Even the global ozone regime, which has stood forth as the best example of a truly effective global regime, started on the basis of a relatively weak framework convention (The Vienna Convention on the Protection of the Ozone Layer).

In short, realistic expectations are needed when discussing a future global plastic agreement. 'Quick fixes' are rarely, if ever, possible in intricate global environmental diplomacy.

4.4. THE SIGNIFICANCE OF POWER AND LEADERSHIP

It is important to recall that *institutional design* is only one of the factors composing the problem-solving ability of an international regime, and it is not necessarily the most important one. As noted above, two other elements are *power* and *leadership* among the regime members. What has been the significance of these factors in other relevant international regimes and how has this played out for the issue of marine plastic pollution so far?

Experience has shown that these factors have significant influence on the effectiveness of MEAs, illustrated by the following two examples from the climate regime and the ozone regime, respectively. First, the fact that the United States used its powerful position and acted as a leader in the establishment of the ozone regime is an important reason for the high effectiveness of that regime.[91] Similarly, the fact that the United States throughout most of the thirty year history of the climate regime has used its powerful position (mostly) as a laggard rather than a leader is a key reason why that regime has a low score on effectiveness.[92] This obviously a simplification, as a host of other factors also make a difference, but it serves to illustrate the strong impact of power and leadership.

The role of these factors can also be illustrated in the making of the most recent global environmental regime, the Minamata Convention on Mercury, as there are some interesting similarities between the process leading up to that convention and the process so far towards the negotiation of a new treaty on marine plastic pollution. Norway and Switzerland took the initiative in 2003 to develop a legally binding convention for mercury, and soon gained support from several other States. However, since the United States and China, both major players, preferred a voluntary approach, the process was stalled. This changed when Barack Obama became President in 2009. He strongly supported a legally binding approach and was also able to get more reluctant parties on board.[93] In the present plastic process, a group of relatively small countries, including Norway, has again taken a leadership role and the number of supporting States has increased rapidly. After the election of Joe Biden, the United States now seems more open to support this process. We may therefore see a similar positive development as witnessed in the making of the Minamata Convention. This probably increases the chances of reaching an agreement. However, it is an open empirical question whether it will also increase the effectiveness of the agreement.

In short, the configuration of leadership and power is crucial for the effectiveness of the emerging plastic regime and, together with problem structure, they are decisive for what is politically feasible in terms of institutional design.

[91] Jon B. Skjærseth, (2012) "International ozone policies: effective environmental cooperation", in Andresen et al. (2012), *International Environmental Agreements*, Routledge, 38-49.
[92] Andresen (2019).
[93] Steinar Andresen et al. (2013), "Why Negotiate a Legally Binding Mercury Convention?", *International Environmental Agreements: Politics, Law and Economics* 13 (4), 425-440.

4.5. KEY DESIGN ELEMENTS

On paper, and without factoring in power and politics, it is relatively straight forward to come up with some general features illustrating an 'ideal' institutional design. These may include:

- majority voting in decision-making procedures;
- strong and effective compliance mechanisms;
- rigorous reporting procedures with independent verification;
- a strong secretariat and close cooperation with relevant organizations like UNEP;
- an independent and large fund for assistance and technology transfer;
- a strong and well balanced scientific advisory board;
- ambitious short- and long-term common goals;
- universal participation; and
- high transparency and procedures for NGO participation.

We have flagged participation and compliance as two key institutional features of particular importance. However, there are difficult trade-offs between the two. In general, the broader the participation, the softer and vaguer the compliance procedures tend to be, and *vice versa*. This can be illustrated by comparing the 1997 Kyoto Protocol with the 2015 Paris Agreement, both negotiated within the UNFCCC. The Kyoto Protocol has a very limited participation in terms of binding and specific commitments. From an effectiveness perspective, this proved to be a major weakness, as the brunt of growing emissions came from emerging nations without commitments.[94] However, the fact that it applied only to 'like-minded' and relatively rich countries, made it possible to establish legally binding compliance mechanisms.[95] Overall, compliance was high.

This illustrates the paradox that high compliance does not necessarily equal high effectiveness. As to the Paris Agreement, the compliance system is much weaker. This was the prize that had to be paid to secure near universal participation. Whether the Paris approach, with a weak compliance system but broad participation, will produce higher effectiveness than the Kyoto approach, remains to be seen. The bottom line is that there is often a difficult trade-off between participation and compliance. If there is a goal to secure very high participation in a new marine plastic litter treaty, the price may be a soft compliance approach as in the Paris Agreement.

Another strategy may be to differentiate commitments between various types of members as is often the case in global UN-based MEAs, with longer timeframes and less ambitious targets for developing countries. This approach was successfully used in the 1987 Montreal Protocol. However, over time this bifurcation has proven to be increasingly irrelevant. This is part of the reason why the Paris Agreement—in principle—has abandoned this approach.

[94] Andresen (2019).
[95] S. Oberthur and C.R. Kelly (2008), "EU leadership in international climate policy: achievements and challenges", *The International Spectator,* 43, 35-50.

Long-term visons and goals can be useful, but there is an inherent weakness that they are so distant that their crafters will never be held accountable for whether or not they are reached.

Experience shows that the establishment of measures to increase information from the parties and to build up more knowledge about the issue at hand is an important and realistic starting point for the subsequent adoption of effective response measures. Long-term visons and goals can be useful, but there is an inherent weakness that they are so distant that their crafters will never be held accountable for whether or not they are reached. They therefore need to be supplemented also with more short-term specific goals.

One important component in this regard is to establish a scientific and technical advisory body. Most international MEAs have such bodies, some are even established before negotiations started, like the Intergovernmental Panel on Climate Change (IPCC), thereby providing an important foundation for the process of negotiations. Thus, a scientific advisory body should be established early on. There is a need to carefully consider the composition of such a body. It has been suggested that a combination between integrity and involvement in such bodies for global treaties is needed.[96] Here again the IPCC offers a relevant model. Most of the work is undertaken by independent scientists, securing integrity, while policymakers are more directly involved in the finalization of the process. This may seem contrary to the ideal of independent science, but for pragmatic reasons it can be necessary to secure legitimacy and support from States.[97]

To increase the knowledge base, solid and detailed reporting procedures are also important. These procedures may not be as appealing as for example discussions about ambitious goals, but they are crucial, particularly in the early stage of the process. It has been argued that this was the most important accomplishment of the UNFCCC.[98] Requirements regarding level of detail may be different for different types of parties. It is therefore important to provide extensive assistance. This may be done by establishing a separate Secretariat or one may rely on assistance from UNEP. Self-reporting is the traditional point of departure, but over time more independent verification could be considered. However, experience has shown that many actors are often against what is seen as a more intrusive approach.

Funding is bound to be another important (and controversial) issue whenever an MEA is established. The multilateral fund created under the ozone regime has been an important contributor to the high effectiveness of this regime.[99] The main experience, however, has been that the best a new convention can hope for is to get access to the Global Environment Facility (GEF), the main funding mechanism for several MEAs. Another avenue is to establish a separate fund, as was done in the Minamata Convention.[100] Considering the

[96] Arild Underdal (2000), "Comparative Conclusion", in Andresen et al., *Science and Politics in International Environmental Regimes: between integrity and involvement*, Manchester University Press.
[97] Tora Skodvin (2000), "The IPCC", in Andresen et al., *Science and Politics in International Environmental Regimes; between integrity and involvement,* Manchester University Press.
[98] Daniel Bodansky (1993), "The United Nations Framework Convention on Climate Change, A Commentary", 18(2) *Yale Journal of International Law* 451-558.
[99] Skjærseth (2012).
[100] Steinar Andresen et al. (2013), "Why Negotiate a Legally Binding Mercury Convention?", *International Environmental Agreements: Politics, Law and Economics* 13 (4), 425-440.

economic slow-down due to COVID-19, expectations should not be too high regarding extensive funding, at least not in the short-run.

Finally, a key institutional feature relates to decision-making procedures. The standard *modus operandi* in the realm of environmental diplomacy is to adopt decisions by consensus. In the EU, the legislative system is rather different, with the EU Commission, the European Parliament,[101] and the European Council all involved in the process of adopting new legal acts. It has been argued that the consensus approach in global environmental diplomacy leads to the 'law of the least ambitious actor'.[102] That is, decisions tend to come closest to the position of the actor(s) that are least willing to pursue an ambitious policy, a truly depressive lesson. However, research as well as practice has shown this 'law' is not necessarily always correct and considerable progress can also be made through consensus.[103]

[101] When the SUP Directive was voted on in the European Parliament in 2019, 560 Member (MEPs) voted in favour, 35 against and 28 abstained. See https://www.europarl.europa.eu/news/en/press-room/20190321IPR32111/parliament-seals-ban-on-throwaway-plastics-by-2021.
[102] Arild Underdal (1980), *The Politics of International Fisheries Management: The Case of the North Sea Atlantic,* Scandinavian University Press.
[103] Breitmeier et al. (2006); Jon Hovi and Detlef Sprinz (2005), "The Limits of the Law of the Least Ambitious Program", *Global Environmental Politics,* Vol.6 Nr.3, 28-43.

CHAPTER 5

CONCLUDING OBSERVATIONS

5 CONCLUDING OBSERVATIONS

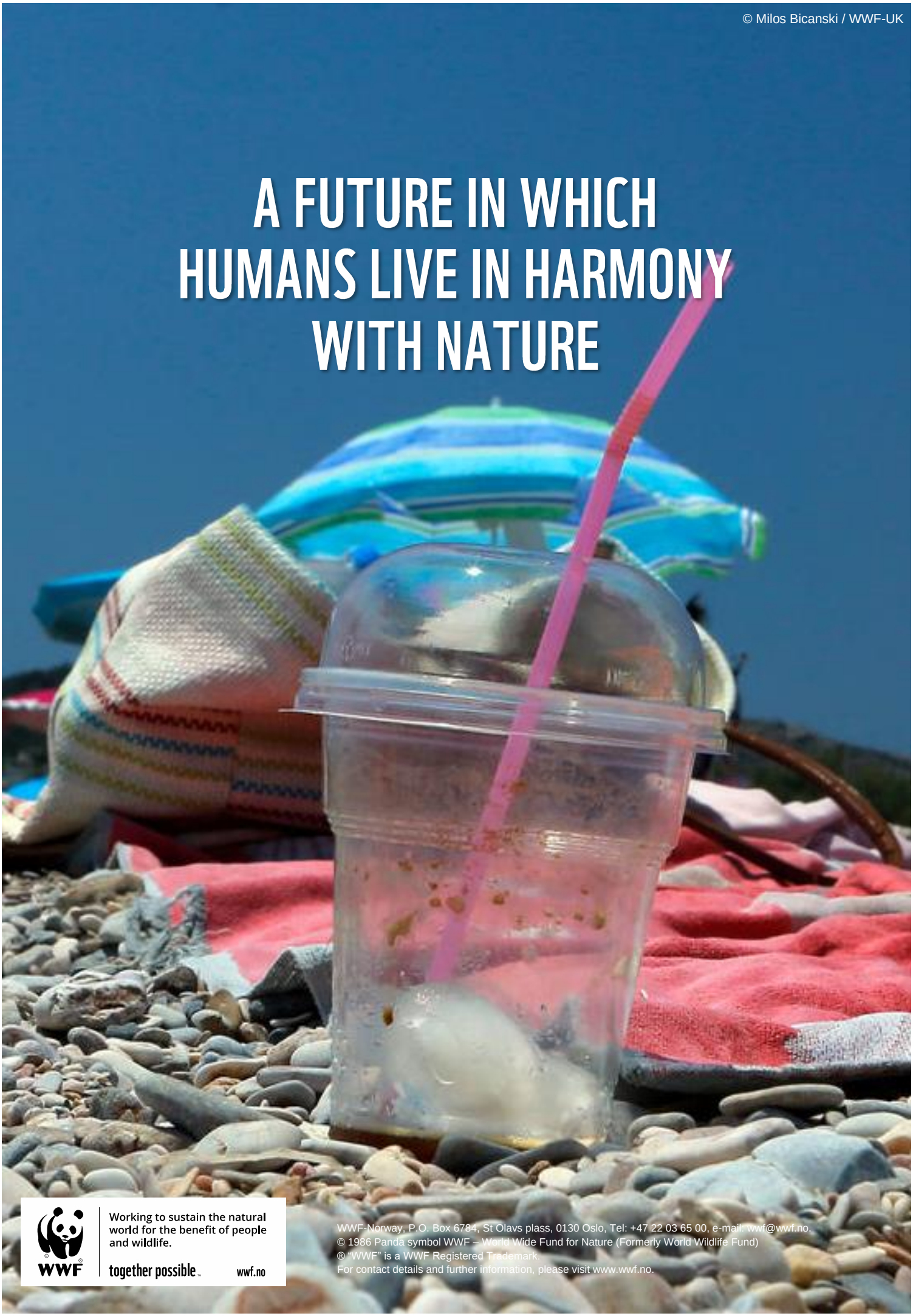
Over the past months, the calls for a new global agreement on marine plastic pollution has continued to grow in strength, and at the first part of the fifth UNEA, in February 2021, Germany announced its intention to host, in collaboration with Ghana, Ecuador and Viet Nam, a ministerial conference on the issue of marine litter and plastic pollution during the second half of 2021. One of the stated objectives of that conference is to take further steps towards a new global agreement.[104] Discussions about the possible scope and parameters of a new treaty are also taking place in multistakeholder platforms and other informal arenas.[105]

The purpose of this report has been to contribute to the ongoing discussions by taking a closer look at how the issue of marine plastic pollution has been dealt with in a region like Europe, or, more specifically, how the EU has approached the issue. In so doing, we have narrowed down our focus to the 2019 SUP Directive, which is one of the few existing legally binding multilateral instruments that specifically aims to tackle the issue of marine plastic pollution. There is, of course, a much broader set of EU regulation that merits consideration when discussing how to prevent plastic from ending up in the environment, and we have listed some of these in the report (see Box 2), but to some extent that is also the case on a global level. There is, as UNEP concluded in its report in 2017,[106] a broad range of initiatives and international regimes in place that in one way or another have a bearing on the issue of marine plastic pollution. The problem is that none of them are specifically designed to tackle the issue of plastic in the marine environment. And that is precisely what the SUP Directive aims to do.

One of the key conclusions of the report is that the SUP Directive can serve as a very useful inspiration for the global level when it comes tackling leakage of single-use plastics, but not necessarily for the design of the new regime as a whole. With its narrow thematic scope, and with specific, proportional and measurable core provisions, the SUP Directive serves to illustrate how the *regulatory complexity* of the plastic pollution issue can be managed, and it provides examples of how rules and obligations could be articulated. What the SUP Directive does not do, however, is to provide answers to the question of how the *cooperative complexity* of the issue should be handled. For a new global agreement, one of the key challenges will be to ensure compliance and participation, and without a global equivalent of the EU Commission, one would have to think differently about the design of the broader framework. The political dynamics will also be important to factor in, and for that, it makes more sense to draw inspiration from other international environmental regimes than from regulation at the EU level.

This leads us to conclude that the SUP Directive, as a source of inspiration, would be most relevant if UN Member States decide that the new global agreement should be shaped as a framework convention with issue-specific protocols, and if one of those protocols were to be focused on single-use plastics.

[104] The announcement is available at https://www.youtube.com/watch?v=q-O6jLDaapI&t=8735s.
[105] See e.g., https://globaltreatydialogues.org.
[106] UNEP (2017).



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