



**UiT** The Arctic University of Norway

Faculty of Law

**The Roles of Cities, Industries, and Public as Stakeholders in Combating Marine Plastic Pollution within the Framework of the Emerging Plastic Regime (Plastic treaty)**

Why are these stakeholders relevant and how should they be included in the plastic regime

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## **Abstract**

Marine plastic pollution presents a critical issue that impacts numerous nations and populations. Various international treaties currently address different sources of marine pollution, primarily structured around a conventional state-centric conception. Despite these efforts, these frameworks have not successfully prevented the influx of plastic waste into marine ecosystems. To date, no single treaty comprehensively regulates the entire lifecycle of plastics. The ongoing negotiations for a new plastic treaty present a significant opportunity for the involvement of non-state actors in both the negotiation and subsequent implementation phases of the treaty. This thesis will explore the pivotal roles that non-state actors—specifically cities, industries, and the public—play as key stakeholders, and will argue for their essential inclusion in the emerging plastic regulatory framework.

# 1 Introduction

## 1.1 Statement of the problem

Plastics have been an integral part of our everyday life. Plastic production and consumption has risen over the past decades especially during covid with the use of single use protective equipment.<sup>1</sup> Plastics' low cost has led to it being overused by industries on multiple products and as a result to the rise of plastic pollution in the environment.<sup>2</sup>

Currently the world is facing a triple planetary crisis of climate change, nature and biodiversity loss, and pollution.<sup>3</sup> When it comes to pollution the marine environment faces a crucial threat coming from plastic pollution. A great example of that problem is a mass of marine debris in the North Pacific known as the Great Pacific Garbage Patch (GPGP) that seems to be growing significantly, especially when compared to the surrounding waters.<sup>4</sup>

The environmental and economic importance of the oceans is undeniable. Over 90% of surplus heat and 30% of CO<sub>2</sub> emissions caused by humans are absorbed by the ocean making it a significant sink of carbon and heat.<sup>5</sup> Additionally, diverse cultures and economies are supported by the ocean economy, which generates about \$1.5 trillion in annual contributions.<sup>6</sup>

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<sup>1</sup> Ana L. Patrício Silva, Joana C. Prata, Tony R. Walker, Armando C. Duarte, Wei Ouyang, Damià Barcelò and Teresa Rocha-Santos, 'Increased Plastic Pollution Due to COVID-19 Pandemic: Challenges and Recommendations' (2021) 405 *Chemical Engineering Journal* 1–9, page 3

<sup>2</sup> Fozia Sarwar , Sajid Ali , Shaukat Hussain Bhatti , Saif ur Rehman, 'Legal Approaches to Reduce Plastic Marine Pollution: Challenges and Global Governance', *Annals of Social Sciences and Perspective*, Vol.2, No.1, 2021, p. 18

<sup>3</sup> Hellweg, S., Benetto, E., Huijbregts, M.A.J. et al. Life-cycle assessment to guide solutions for the triple planetary crisis. *Nat Rev Earth Environ* **4**, p. 471–486. UNEP (2020). *The Triple Planetary Crisis: Forging a New Relationship between People and the Earth* (UNEP). <http://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth>.

<sup>4</sup> Lebreton, L., Slat, B., Ferrari, F. et al. Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. *Sci Rep* **8**, 4666 (2018), p. 1, 7

<sup>5</sup> Katie Lebling, Eliza Northrop and Colin McCormick , 'Ocean-based Carbon Dioxide Removal: 6 Key Questions, Answered', <https://www.wri.org/insights/ocean-based-carbon-dioxide-removal#:~:text=We%20know%20the%20ocean%20is,more%20carbon%20than%20the%20atmosphere.>, November 15, 2022

<sup>6</sup>UN Environment program, 'Ocean, seas and coasts UNEP promotes the protection, conservation, restoration, and sustainable management of the world's marine and coastal areas', <https://www.unep.org/topics/ocean-seas-and-coasts#:~:text=The%20ocean%2C%20a%20major%20carbon,supporting%20diverse%20cultures%20and%20economies.>

The 21st century has been dubbed as the Plastic Age.<sup>7</sup> Covid-19 pandemic added to the problem with the use of single-use plastics like face masks and single-use gloves. Marine plastic litter represents a formidable environmental crisis with direct and indirect implications for marine ecosystems, economic stability, and human welfare.<sup>8</sup> It is estimated that around 75-199 million tons of plastics enter the oceans per year and this amount is expected to triple by 2040<sup>9</sup> while according to the Ellen MacArthur Foundation report (2016), by 2050 it is likely that the plastics at sea will outreach fish.<sup>10</sup>

In 2015 the UN (United Nations) released the sustainable goal agenda that was adopted by governments and industries in order to promote sustainability.<sup>11</sup> It is constituted by 17 SDGs and 169 targets. Goal 14 relates to the international efforts to tackle the plastic pollution that enters into the oceans as it refers to the *Conservation and sustainable use of the oceans, seas and marine resources for sustainable development*. Plastic debris remain the most common type of marine litter that can be found in the oceans.<sup>12</sup> According to target 14.1 : by 2025 ‘*marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution should have been prevented and significantly reduced*’. The effectiveness of the taken measures will be measured by the nitrogen use efficiency on the food systems, the number of marine protected areas (MPAs), the index of coastal eutrophication and the amount of floating plastic on the ocean.<sup>13</sup> This goal recognizes plastic pollution as a global threat, crucial for the wellbeing of marine ecosystems.

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<sup>7</sup> Porta R. Anthropocene, the plastic age and future perspectives. FEBS Open Bio. 2021 Apr;11(4):948-953. PMID: 33794071; PMCID: PMC8016130.

<sup>8</sup> Concern over chemicals included in most plastics that people are exposed to—like phthalates, bisphenol A, and polybrominated diphenyl ethers (PBDE)—and how they may affect human health are growing. There is disagreement among researchers over whether to classify certain additives as toxicants or carcinogens, among many other matters, but it is generally agreed that these substances have the power to modify the endocrine system. (Kumar, P. Role of Plastics on Human Health. Indian J Pediatr 85,p. 384–389 (2018).)

<sup>9</sup> \*UNEP, From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution, 2021

<sup>10</sup> World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, The New Plastics Economy: Rethinking the future of plastics (2016).

<sup>11</sup> UN (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. Resolution Adopted by the General Assembly on 25 September 2015, 42809, p. 1-13.

<sup>12</sup> Auta HS, Emenike CU, Fauziah SH (2017) Distribution and importance of microplastics in the marine environment a review of the sources, fate, effects, and potential solutions. Environ Int 102:165–176, p. 166-167

<sup>13</sup> Walker, “(Micro)Plastics and the UN Sustainable Development Goals.”, (2021), Volume 30,page 100497, p. 5-6

But how does plastic enter the oceans? The main source is land-based as more than 80% comes from land sources.<sup>14</sup> Plastic litter can also enter the oceans through atmosphere, coastal zones, rivers (wind, runoff, precipitation, tire wear, paint etc).<sup>15</sup> For example, it is estimated that around 30.000 rivers are accountable for 20% of riverine plastic emissions.<sup>16</sup> In addition, significant plastic pollution of water bodies has resulted from inadequate waste management procedures.<sup>17</sup> Moreover, beaches with a lot of plastic debris tend to have less aesthetic and recreational value.<sup>18</sup> A big also challenge when it comes to marine plastic litter is the amount of plastics like fishing ghost gear that end up in the sea through fishing, either legal or illegal. The fact that plastics can have a transboundary nature makes their management even more difficult. Also, in contrast to what most people believe, the majority of plastic litter that is found in the oceans are under the surface, making it really hard to be removed.<sup>19</sup>

## **1.2 Purpose, research question and sub questions**

In May 2022, the United Nations Environment Assembly (UNEA) adopted a resolution requesting that an international negotiating committee (INC) be convened to develop an international legally binding instrument on plastic pollution, including in the marine environment, based on a comprehensive approach that addresses the full life cycle of plastic. This legally binding international instrument on plastic pollution is known as ‘The plastics treaty’.<sup>20</sup> On occasion of the negotiations on the Plastics treaty this thesis is focusing in plastic pollution in the marine environment and the role that the stakeholders can play in it.

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<sup>14</sup> Anthony L. Andrady, Microplastics in the marine environment, *Mar. Pollut. Bull.* 62 (2011) 1596–1605., Laura Parker, ‘ June 2018, National Geographic., page 10, Garcia, B., Fang, M. M., & Lin, J. (2019). Marine Plastic Pollution in Asia: All Hands on Deck!. *Chinese Journal of Environmental Law*, 3(1), 11-46. , p. 6

<sup>15</sup> Susana Lincoln, Barnaby Andrews, Silvana N.R. Birchenough, Piyali Chowdhury, Georg H. Engelhard, Olivia Harrod, John K. Pinnegar, Bryony L. Townhill, Marine litter and climate change: Inextricably connected threats to the world's oceans, *Science of The Total Environment*, Volume 837, 2022, 155709, p. 1-2.

<sup>16</sup> Meijer et al ‘More than 1000 rivers account for 80% of global riverine plastic emissions into the ocean’ (2021) *Science Advances & River Plastic Pollution Sources*, p. 1-4

<sup>17</sup> Kunju Vaikarar Soundararajan Rajmohan, Chandrasekaran Ramya, Manakkal Raja Viswanathan, Sunita Varjani , ‘Plastic pollutants: effective waste management for pollution control and abatement’, *Current Opinion in Environmental Science & Health*, Volume 12, December 2019, p. 72-84, Available online 31 August 2019, Version of Record 19 November 2019, page 73

<sup>18</sup> Only 9 % of plastics are recycled and 22% is mismanaged. Source: OECD Global Plastics Outlook Database

<sup>19</sup> Pabortsava, K. & Lampitt, R. S. High concentrations of plastic hidden beneath the surface of the Atlantic Ocean. *Nat. Commun.* 11, 4073 (2020), p. 2-4

<sup>20</sup> United Nations Environment Programme (UNEP), UNEA Resolution 5/14 ‘End plastic pollution: towards an international legally binding instrument’, UN Doc UNEP/PP/OEWG/1/INF/1 (10 May 2022).

More specifically the central question for this thesis is: In the face of the crucial crisis of marine plastic pollution, why are cities, industries and public participation relevant in the emerging plastic regime and how should they be included?

To answer the legal research question stated above, a set of sub-questions need to be answered first.

**Sub-question 1:** What is the current international framework on marine plastic pollution?

**Sub-question 2:** Why these three stakeholders should be included in the plastic regime?

**Sub-question 3:** How they are participating in the current international framework and how should they participate in the new plastic treaty?

As part of the answer to the research question I will be looking at the Arctic as an example of inclusive governance of public participation regarding indigenous people as a minority group. The research question that this thesis will answer concerns the problem of marine plastic pollution and the evolving plastic regime and why and how cities, the plastic industry and public participation can be a part of the new plastic's treaty. The objective of this thesis is to point out the gap in marine pollution governance that follows a state-centric approach, add to the existing literature related to the evolving plastic regime and, by examining three main stakeholders and their participation, contribute to the development of a comprehensive and effective global response to the challenge of marine plastic pollution.

### **1.3 Literature review**

When it comes to plastic pollution the progress that has been made is slow to say the least. The legal frameworks governing the marine environment are complex, encompassing a myriad of international conventions, regional agreements, and national legislations. As it has been said by many scholars,<sup>21</sup> up until now there is no international agreement that regulates the full life

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<sup>21</sup> Jung D. An International Legal Framework for Marine Plastics Pollution: Time for a Change to Regulate the Lifecycle of Plastics, p. 47-50. In: Platjouw FM, Pozdnakova A, eds. *The Environmental Rule of Law for Oceans: Designing Legal Solutions*. Cambridge University Press; 2023:46-57, McIntyre, Owen, *Addressing Marine Plastic Pollution as a 'Wicked' Problem of Transnational Environmental Governance* (January 1, 2020), p. 284-286. (2020) 25/6 *Environmental Liability: Law, Policy and Practice* 282-295., Raubenheimer, K. & McIlgorm, A. (2018). Can the Basel and Stockholm Conventions provide a global framework to reduce the impact of marine plastic litter?. *Marine Policy*, 96 p. 285-290.



cycle of plastics in a comprehensive manner but more in a fragmented way.<sup>22</sup> In general it is really hard to eliminate what we mean by the term plastic while also more types of litter than just plastics are addressed by the existing instruments referring to marine pollution.<sup>23</sup> Every existing treaty, regional or international, regulates just a part of the plastics cycle or a geographically limited part or have a different approach to marine litter.<sup>24</sup>

The crux of the problem lies also in the fragmented legal landscape, where responsibilities are dispersed among a wide array of stakeholders, including plastic producers, maritime operators, coastal and non-coastal states, international organizations, and civil society. The lack of a cohesive and enforceable legal structure leads to a diffusion of accountability and hinders cooperative efforts. However, the persistent influx of plastics into our oceans reveals a disconcerting gap in the legal mechanisms and their enforcement.

Even though concerns about plastic pollution are becoming more and more pressing, plastics are expected to be produced and used more in the upcoming decades. In the past decade the international community has shown efforts to tackle the issue with highlight on 2 March 2022 the convening of an international negotiating committee towards the negotiation of an international legally binding instrument on plastics by 2024 requested by the Executive Director of UNEP by the United Nations Environment Assembly to the United Nations Environment Program (UNEP)<sup>25</sup>. This building momentum seems like the best opportunity to develop the law. One of the biggest challenges in the new treaty is to determine the ‘proper’ policies that should be adopted and followed. Who should be engaged in this emerging regime?

For the framing of a policy regarding plastic waste a variety of stakeholders needs to be involved to deal effectively with the issue and its impact on the marine environment and human health. The worldwide nature of the plastics supply chain necessitates global coordination among all key players in any action to combat plastic pollution. The main key stakeholders that are identified in this thesis are industries, cities and public participation. These stakeholders

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<sup>22</sup> Ibid

<sup>23</sup> Elizabeth A. Kirk & Napom Popattanachai, Marine plastics: Fragmentation, effectiveness and legitimacy in international lawmaking, 27 REV. EUR. COMP. & INT'L ENVTL. L. 222 (2018). P. 223-226

<sup>24</sup> Ibid

<sup>25</sup> UNEA Plastic Resolution; United Nations Environment Assembly (UNEA) 5/14. United Nations Environment Assembly of the United Nations Environment Programme Fifth session Nairobi (hybrid), 22 and 23 February 2021 and 28 February–2 March 2022 ,'End plastic pollution: towards an international legally binding instrument : resolution / adopted by the United Nations Environment Assembly,UN Doc UNEP/EA.5/RES.14, March 2022

range greatly in terms of their traits, viewpoints, methods of operation, and approaches to the problem of plastic pollution worldwide.<sup>26</sup>

Stakeholder participation has shown that it improves environmental governance, as discussed by the following. Environmental governance outcomes are generally thought to be improved when organized stakeholders and citizens participate and collaborate in public decision-making processes. A meta-analysis of 305 case studies done by Jens Newig et al. illustrates the significance of differentiating between the following aspects of participation: the delegation of decision-making authority to participants, the representation of stakeholders, and the level of communication between participants and with governmental bodies.<sup>27</sup> However, the existing international law that refers to marine pollution tends to a state centric system, neglecting in that way stakeholders that can contribute crucially to sustainable ocean governance.

The way on how all these stakeholders should participate in the environmental governance and the relationship between them has been a topic of discussion as many theories and concepts can be interpreted. For example, one concept is the Multistakeholders platforms that seek for stakeholders to work together to reconcile their conflicting interests.<sup>28</sup> Another approach is the holistic approach that highlights the numerous connections and interactions between the different components that comprise a system as a whole such as social, environmental, and economic factors. Rather of seeing the plastic problem as a straightforward linear issue, one must consider the wide range of factors that contributed to the plastic pollution and constrained the available remedies. Citizen science has also been a theory that often interacts with environmental law, demonstrating the community-based aspects of environmental law governance.<sup>29</sup>

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<sup>26</sup> Lampitt, R.S., Fletcher, S., Cole, M. et al. Stakeholder alliances are essential to reduce the scourge of plastic pollution. *Nat Commun* **14**, 2849 (2023).

<sup>27</sup> Jens Newig, Nicolas W. Jager, Edward Challies, Elisa Kochskämper, Does stakeholder participation improve environmental governance? Evidence from a meta-analysis of 305 case studies, *Global Environmental Change*, Volume 82,2023,102705,ISSN 0959-3780, <https://doi.org/10.1016/j.gloenvcha.2023.102705>(<https://www.sciencedirect.com/science/article/pii/S0959378023000717>)

<sup>28</sup> Siangulube, F.S. The Role of Multistakeholder Platforms in Environmental Governance: Analyzing Stakeholder Perceptions in Kalomo District, Zambia, Using Q-Method. *Environmental Management* (2023).

<sup>29</sup> Kasperowski, D, Berti Suman, A, Chen, S-L and Kullenberg, C. 2023. Where Environmental Citizen Science Meets the Law. *Citizen Science: Theory and Practice*, 8(1): 8, pp. 1–4.

## 1.4 Methodology

In a first instance, to answer the first sub-question I will seek to understand and analyze the existing international law that refers to marine pollution and has been characterized as fragmented, why is that and how it is relevant with marine plastic pollution. To do so, this thesis will follow a doctrinal methodology determining what the international law is stating regarding the issue of marine plastic.<sup>30</sup> I will analyze legislation, as well as case law and literature sources related to marine plastic pollution. I will focus on key treaties like UNCLOS and the London Convention<sup>31</sup> and their relevant legal provisions that refer directly or indirectly to marine plastic pollution and their limitations.

In a second instance, to answer the next two sub-questions I will first follow a descriptive analytical method. I will describe the roles and impacts of three key stakeholders - cities, industries and public - and their responsibilities in the context of marine plastic pollution and how the international law addresses them or not. To do so, I will examine international legal instruments, such as the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter , that were analyzed in a previous stage in the thesis in order to assess how these stakeholders up until now fit or not into these frameworks and their responsibilities towards managing marine pollution.

Moreover, the stakeholder analysis involves analyzing how these stakeholders (cities, industries and public) interact and how their roles can be enhanced in the context of international plastic regime. Environmental law as an interdisciplinary branch of legal science often integrates other perspectives in its analysis,<sup>32</sup> the present study will incorporate concepts from urban studies, environmental science, and global governance to environmental law.

To answer the third sub-question, also the study will draw on academic literature and on the approaches of citizen science and Principle 10 of Rio Declaration and how they can strengthen environmental justice in the evolving plastic regime. The theory on citizen science and the Principle 10 of Rio Declaration helps explain why and how these key stakeholders should

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<sup>30</sup> Smits 2015, p. 5-6

<sup>31</sup> In the thesis the treaties that are going to be analyzed are : UNCLOS, UN Fish stock agreement, London Convention and Protocol, MARPOL, Basel Convention, Stockholm Convention

<sup>32</sup> Kokko, 2015, p. 286

participate in the plastic treaty. The study will also base its analysis on academic literature, and more specifically for the stakeholder analysis will rely on the works of Aleke Stöfen-O'Brien that discusses sustainable governance and cities and Daniel F Akrofi on non- state actor participation in the plastic treaty.

The thesis will dig into how the analyzed stakeholders fit into the broader context of international plastic environmental governance, the role they can play and how they can collaborate on regional and global scales to address the environmental challenge of plastic pollution. The example of Arctic governance will be used as a case study to support the involvement of public participation in the plastic treaty. It will more specifically focus on indigenous people as an example of represented minority and its involvement in policy-making.

## **1.5 Thesis structure**

The initial chapter of this thesis will critically examine the existing regulatory frameworks pertinent to marine plastic pollution and identify the gaps in addressing this environmental challenge. It will explore various international regulations, each focusing on distinct stages of the plastic lifecycle, including manufacturing, distribution, transfer, and disposal.

In the subsequent chapter, the focus will shift to three principal stakeholders integral to the mitigation of marine plastic pollution: cities, industry, and public participation. This section will evaluate the significance of their roles within the governance of plastic pollution and discuss their potential contributions to the emerging plastic regulatory framework.

The next chapter will delve into the governance model of the Arctic, drawing parallels with the current international regimes targeting marine plastic pollution. This analysis will highlight how Arctic governance exemplifies participative governance by emphasizing the involvement of indigenous minority groups.

By addressing these areas, the thesis will provide valuable insights for policymakers, contributing to the development of a comprehensive and effective global response to the challenge of marine plastic pollution in the light of the emerging plastic regime and add to the existing literature on the topic.

## 2 The International Legal Framework for Marine Plastic Pollution

Up until now there is no international treaty that has as its primary objective the prevention and regulation of marine plastics pollution. A number of treaties regulate in different ways various sources of marine litter. An examination of all instruments that refer to marine plastic pollution either directly or indirectly is beyond the scope of this thesis but it focuses on the key ones. Because of their relevance regarding plastics life cycle and marine environment the ones that will be analyzed are UNCLOS,<sup>33</sup> London Convention<sup>34</sup> and Protocol,<sup>35</sup> MARPOL,<sup>36</sup> Stockholm Convention<sup>37</sup> and Basel Convention.<sup>38</sup> Each of these treaties refer directly or indirectly to a different part of the plastic life cycle. The international regime that addresses marine litter has been characterized as fragmented.<sup>39</sup>

### 2.1 The United Nations Law of the sea Convention (UNCLOS)

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) is the most critical legally binding treaty, also known as the ‘constitution for the oceans’,<sup>40</sup> providing the legal framework that regulates the duties, the rights and the activities in the oceans and seas regarding governing of marine space and marine resources.<sup>41</sup> UNCLOS constitutes a crucial source of international law that governs the effects of human activity on the maritime environment<sup>42</sup> while also according to Agenda 21,<sup>43</sup> UNCLOS ‘provides the international basis upon which to

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<sup>33</sup> Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397.

<sup>34</sup> 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter

<sup>35</sup> 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter

<sup>36</sup> 1978 Protocol Relating to the 1973 International Convention for the Prevention of Pollution from Ships (including Annexes, Final Act and 1973 International Convention)

<sup>37</sup> 2001 Stockholm Convention on Persistent Organic Pollutants

<sup>38</sup> 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

<sup>39</sup> Raubenheimer K, McIlgorm A, Oral N. Towards an improved international framework to govern the life cycle of plastics. *RECIEL*. 2018;27:210–221. p 214-215, Peter Dauvergne, ‘Why is the global governance of plastic failing the oceans?’ (2018) 51 *Global Environmental Change* 22 (Dauvergne, ‘Why is global governance of plastic failing?’), p 22-25.

<sup>40</sup> Scott, K. N. (2023). The LOSC: ‘A Constitution for the Oceans’ in the Anthropocene?. *The Australian Year Book of International Law Online*, 41(1), 269-298, pages 270-273.

<sup>41</sup> Mendenhall E (2023). Building a regime complex for marine plastic pollution. *Cambridge Prisms: Plastics*, 1, e12, 1–6 , page 2

<sup>42</sup> Today, it has 168 parties, including the European Union.

<sup>43</sup> Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the

pursue the protection and sustainable development of the marine and coastal environment and its resources'.<sup>44</sup>

Marine pollution in UNCLOS is defined in Article 1(1)(4) as '*the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities*'. Plastic pollution like plastic debris, that can be found in the marine environment are human-introduced and have severe consequences for the marine living resources and human health making them fall under the requirements of the article.<sup>45</sup>

### **Articles 192 and 194**

The treaty has numerous rules that address environmental protection as it regulates in a general way many types of sources of pollution, such as land-based sources, dumping and pollution coming from vessels.<sup>46</sup> Part XII sets the scene when it comes to pollution with Article 192 and the general obligation for the States to protect the marine environment.<sup>47</sup> This obligation has a broad scope and is applied to all the activities that are or can be harmful to the marine environment.<sup>48</sup> This obligation has been clarified by the International Court of Justice (ICJ) and more specifically in the *Pulp Mills* case where the court determined that the State must take reasonable steps to protect the aquatic environment in general and pollution prevention in particular making clear that the obligation under Article 192 requires the State to exercise due diligence.<sup>49</sup> This means that the obligation is one of conduct rather than result.<sup>50</sup>

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environment. Chapter 17 discusses the interfaces between UNCLOS and Chapter 17 of Agenda 21 and its effects, and the protection of the marine environment from land-based and sea-based activities.

<sup>44</sup> Agenda 21 (n 450) resolution 1, annex ii, para 17.1.

<sup>45</sup> See chapter 1 on a summary of current scientific consensus regarding the effects and potential effects on plastics in humans, animals, and the environment chapter

<sup>46</sup> UNCLOS articles 194, 207, 210, 211

<sup>47</sup> United Nations Convention on the Law of the Sea 1982: A Commentary, Vol IV: Articles 192 to 278 (Center for Oceans Law and Policy and Kluwer Law International 2002)

<sup>48</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', A Patchwork of International Law, *Frontiers in International Environmental Law: Oceans and Climate Challenges*, p. 287

<sup>49</sup> *Ibid*, p. 290

<sup>50</sup> *Pulp Mills* case, above (n 29), para 197.

Additionally, in the *South China Sea Arbitration*, the Arbitral Tribunal not only upheld the obligation of due diligence to protect and preserve the marine environment but also provided a comprehensive and broad interpretation of Article 192.<sup>51</sup> The tribunal initially clarified that Article 192 is supported by other sections of Part XII of the Convention and additional relevant international rules. By referring to 'other applicable rules of international law,' the Tribunal extended its normative scope beyond just international treaties or conventions to potentially include customary international law and even non-binding legal instruments, or soft law.<sup>52</sup> Furthermore, the Tribunal elaborated on the meaning of 'protect and preserve the marine environment' as stipulated in Article 192 by interpreting 'protect' as safeguarding against future harm and 'preserve' as either maintaining or enhancing the current state of the marine environment.<sup>53</sup> Additionally, it noted that these responsibilities involve proactive actions to safeguard and maintain the environment and also include the imperative to prevent any deterioration of the existing marine conditions.<sup>54</sup>

On the other hand, Article 194 (1) requires States to take all measures considered necessary to '*prevent, reduce and control pollution of the marine environment from any source*' including vessel and land-based sources, making sure also that the pollution that is created from activities taking place in their territories it is not going to spread out in areas outside their jurisdiction (194(2)). Article 194(3) explicitly mandates that the measures implemented should, among other things, aim to reduce as much as possible 'the discharge of toxic, harmful, or noxious substances, particularly those that are persistent, originating from land-based sources, through the atmosphere, or by means of dumping'. This requirement undoubtedly encompasses marine litter and plastics as plastics is a source of pollution that can be persist in the environment and cause and cause an number of environmental problems.<sup>55</sup> However, that obligation of article 194 is an obligation of due diligence meaning that falls upon States to take necessary measures

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<sup>51</sup> South China Sea Arbitration (The Republic of Philippines v The People's Republic of China), Award, 12 July 2016, pca Case No 2013-19.

<sup>52</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', A Patchwork of International Law, *Frontiers in International Environmental Law: Oceans and Climate Challenges*, Pages: 281–315, p 290-291

<sup>53</sup> South China Sea Arbitration, para 941

<sup>54</sup> Ibid para 941

<sup>55</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', p 286

to minimize sources of marine litter but also enforcing them with a particular level of caution, and exercising administrative control over both public and private businesses.<sup>56</sup>

More recently, in the advisory opinion on Climate change, case number 31 that was delivered on 21<sup>st</sup> of May 2024, ITLOS noted that the ‘necessary’ measures in the context of this provision (Article 194) should have a broad interpretation. This expansive understanding is in line with the broad obligation described in Article 194, paragraph 1, indicated by terms like "all" measures or "any" source. This interpretation is also supported by the detailed definition of "pollution of the marine environment" found in Article 1, paragraph 1, subparagraph 4, of the Convention. Consequently, the term "necessary" includes not just measures that are crucial for preventing, reducing, and controlling marine pollution, but also those that help in achieving this objective.<sup>57</sup> According to ITLOS ‘the scope and content of necessary measures may vary depending on the means available to States and their capabilities...’<sup>58</sup> Regarding the obligation imposed by Article 194(5) of UNCLOS, the States when it comes to these measures mentioned in the article and their implementation they have a level of discretion depending on their domestic legal systems.<sup>59</sup> ITLOS also noted that, regarding the due diligence obligation under 194 (1), due diligence is a ‘variable concept’ that can change over time depending each time on the existing circumstances (scientific and technological information, applicable international rules and standards, the risk of harm and how urgent it is).<sup>60</sup> This obligation of ‘continuing nature’ is applied to the due diligence obligation in Article 192 of UNCLOS in a similar way.<sup>61</sup>

## **Article 207**

When it comes to marine plastic pollution, it is mainly perceived as a land-based sources problem as more than 80% comes from land sources.<sup>62</sup> UNCLOS, remains the only treaty that regulates land-based sources pollution in a binding way.<sup>63</sup> Article 207 (1) and (2) refer to land-

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<sup>56</sup> Pulp Mills case, para 164

<sup>57</sup> ITLOS Advisory Opinion on Climate change, No 31, 21<sup>st</sup> May 2024, para 203

<sup>58</sup> Ibid para 225

<sup>59</sup> Ibid para 405

<sup>60</sup> Ibid para 239 and 317

<sup>61</sup> Ibid para 397

<sup>62</sup> W.C. LI, H.F. TSE, L. FOK, Plastic waste in the marine environment: A review of sources, occurrence and effects, *Science of The Total Environment*, Volumes 566–567, 2016, Pages 333-349, page 335

<sup>63</sup> Jung D. An International Legal Framework for Marine Plastics Pollution: Time for a Change to Regulate the Lifecycle of Plastics. In: Platjouw FM, Pozdnakova A, eds. *The Environmental Rule of Law for Oceans: Designing Legal Solutions*. Cambridge University Press; 2023:48., p 48



based pollution and imposes the duty on States to *'adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.'*<sup>64</sup> These responsibilities are augmented by the duty of States to engage in cooperative actions, which involve efforts to align their policies according to Article 207(3), and to work together through appropriate international organizations or diplomatic conferences to create global and regional regulations, standards, and recommended practices and procedures (Article 207(4)).<sup>65</sup>

Additionally, with specific importance to marine debris and microplastics, there is a focus on ensuring that such measures aim to 'reduce to the greatest extent feasible, the discharge of toxic, harmful, or noxious substances, particularly those that are persistent, into the marine environment' (Article 207(5)). However, even though UNCLOS in article 207 provide further details regarding the actions that States are required to take when it comes to marine litter, like in article 207(4), this provisions have more of an aspirational than practical role as states are just expected to "endeavor to establish global and regional rules."<sup>66</sup> In this regard, article 207 provisions have been criticized as weak with restricted practicality.<sup>67</sup>

According to Nilüfer Oral, it is well accepted that States are required to preserve the marine environment from land-based sources of pollution, including marine litter and plastics.<sup>68</sup> To this end, they must aggressively implement the necessary rules and enforce them strictly. The standard for necessary State action is notably stringent, indicating that based on scientific evidence of the detrimental impacts of plastics on the marine environment, all State Parties to

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<sup>64</sup> United Nations, 1982. United Nations Convention on the Law of the Sea. United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly (1994). Article 207

<sup>65</sup> Article 207(4) : 'States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development.'

<sup>66</sup> Telesetsky, A. (2021). Keeping UNCLOS Relevant: Revising UNCLOS to Address 21st Century Fishing, Labor Practices, Pollution, and Climate Change. *The Korean Journal of International and Comparative Law*, 9(1), 18-34., p. 27

<sup>67</sup> Daud Hassan, 'International Conventions Relating to Land-Based Sources of Marine Pollution Control: Applications and Shortcomings' (2004) 16(4) *Georgetown International Environmental Law Review* 657, page 668.

<sup>68</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', pages 291-292

the UNCLOS, and potentially all States if Part XII is considered customary international law, are required at a minimum to fulfill their due diligence responsibilities.<sup>69</sup> Additionally, they must uphold their duties to protect, prevent, and preserve the marine environment from marine litter and plastics. The decisions by the ICJ and ITLOS tend to clarify and give clearer guidance to the States in relation to their responsibilities and obligations under Part XII and Articles 193, 194 and 207.<sup>70</sup>

An additional soft law instrument that primarily focuses on marine litter from land-sources is the The Global Programme of Action for Protection of the Marine Environment from Land-based Activities (GPA). States are urged under the GPA to create national strategies to address land-based sources of pollution that affect the marine environment.<sup>71</sup> The GPA highlights particular sources of land-based pollution that require international collaboration, such as wastewater treatment, persistent organic pollutants, and sewage.<sup>72</sup> Within these categories, plastics are explicitly noted under sewage and litter.<sup>73</sup> However, a significant issue is the absence of a monitoring system to track the advancement of these programs or to guarantee their development and implementation by states.<sup>74</sup>

## **2.2 UNCLOS limitations**

Plastic pollution is only addressed in an indirect way by UNCLOS as plastics are not recognized as a distinct type of waste.<sup>75</sup> The convention also lacks detailed pollutant descriptions and clear obligations with defined rules, standards, or implementation timelines for states regarding the conservation and preservation of the marine environment. Moreover, UNCLOS struggles with enforcement challenges and assigning responsibilities for removing plastics from international waters, where identifying the responsible parties is problematic.<sup>76</sup> This issue is exacerbated by

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<sup>69</sup> Nilüfer Oral, Chapter 11 ‘From the Plastics Revolution to the Marine Plastics Crisis’, pages 291-292

<sup>70</sup> Ibid

<sup>71</sup> Nagtzaam, Gerry, et al. *Global Plastic Pollution and Its Regulation : History, Trends, Perspectives*, Edward Elgar Publishing Limited, 2023, Chapter 6 Current international law and plastic, p. 213

<sup>72</sup> GPA

<sup>73</sup> Ibid

<sup>74</sup> Nagtzaam, Gerry, et al. *Global Plastic Pollution and Its Regulation : History, Trends, Perspectives*, Edward Elgar Publishing Limited, 2023, Chapter 6 Current international law and plastic, p. 213

<sup>75</sup> Nilüfer Oral, Chapter 11 ‘From the Plastics Revolution to the Marine Plastics Crisis’, pages 291-292

<sup>76</sup> Ibid

the transboundary nature of marine pollution, complicating enforcement and accountability across states.<sup>77</sup> Additionally, UNCLOS lacks a robust compensation framework for states required to implement pollution controls, leading to hesitancy among nations to allocate resources to address pollution they did not originate.<sup>78</sup> Another issue is the fact that a powerful marine plastic contributor, the United States, is not a signatory party of the Convention.<sup>79</sup>

Furthermore, UNCLOS does not clearly list pollutants or provide technical guidelines, resulting in a patchwork of national regulations that create an inconsistent regulatory environment.<sup>80</sup> Additionally, the strong emphasis on state sovereignty within UNCLOS permits states considerable discretion to disregard pollution controls, as illustrated by Article 210, which suggests states should enact pollution-reducing laws but also allows them the authority to permit and manage such dumping as they see fit.<sup>81</sup>

### **2.3 Fisheries related legal Instruments – The UN Fish Stocks Agreement and the FAO Code of Conduct for Responsible Fisheries**

Variou agreements are linked to UNCLOS provisions related to marine litter and provide clarification on the general duties arising from the convention and regulate the way these provisions should be implemented by the States like the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement).<sup>82</sup> Fishing is also one of the activities that contribute crucial to marine plastic pollution. A significant amount of fishing gear and equipment incorporates plastics. Synthetic fibers, which are both affordable and durable, are commonly used in the manufacture of fishing nets, trawls, dredges, traps, floats, lures, and hook and line

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<sup>77</sup> Nagtzaam, Gerry, et al. *Global Plastic Pollution and Its Regulation : History, Trends, Perspectives*, Edward Elgar Publishing Limited, 2023. ProQuest Ebook Central, <https://ebookcentral-proquest-com.mime.uit.no/lib/tromsoub-ebooks/detail.action?docID=30721849>, Chapter 6 Current international law and plastic, p. 194

<sup>78</sup> João Pinto da Costa et al, 'The Role of Legislation, Regulatory Initiatives and Guidelines on the Control of Plastic Pollution' (2020) 8 *Frontiers in Environmental Science* 1 (da Costa et al, 'The Role of Legislation') p. 2.

<sup>79</sup> *Ibid*

<sup>80</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', p. 195-196

<sup>81</sup> *Ibid*

<sup>82</sup> Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (adopted 4 December 1995, entered into force 11 November 2001) 2167 UNTS 3 (UN Fish Stocks Agreement).

setups.<sup>83</sup> Additionally, plastics are utilized in the construction and maintenance of boats, insulation of holds, and in fish crates while plastic materials are employed for storing and transporting fish.<sup>84</sup>

The UN Fish Stocks Agreement is focused on the conservation and management of straddling fish stocks and highly migratory fish stocks in areas beyond and under national jurisdiction. It also addresses a certain level of marine plastic. In Article 5 (f), *inter alia*, it reads that States are required to reduce waste, pollution, discards, and catch by lost or abandoned gear (ALDFG).<sup>85</sup> This is pertinent to plastics since a large portion of fishing nets and other gear that is used today are made of plastic, which contributes significantly to plastic pollution in the marine environment.<sup>86</sup> Furthermore, Article 5(g) mandates that States safeguard biodiversity, which could encompass measures to prevent debris from ALDFG that negatively impacts various elements of biodiversity.<sup>87</sup>

However, the scope of the UN Fish Stocks Agreement is restricted to fishing activities targeting highly migratory and straddling fish stocks. It does not extend to entirely domestic stocks or discrete high seas stocks. Additionally, the term ALDFG is not utilized within the UN Fish Stocks Agreement. Moreover, this agreement is mainly dependent for its implementation on the use of regional fishery management organizations (RFMOs) to regulate abandoned, lost or otherwise discarded fishing gear (ALDFG).<sup>88</sup>

The only international instrument that specifically refers to ALDFG is the FAO Code of Conduct for Responsible Fisheries, a non-legally binding instrument.<sup>89</sup> As stated in Article 8.4.6, it promotes state-to-state collaboration in the development of materials and technologies aimed at lowering the loss of fishing gear while in paragraph 6.6 and 8 promotes generally the minimization of waste.

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<sup>83</sup> Nilüfer Oral, Chapter 11 ‘From the Plastics Revolution to the Marine Plastics Crisis’, p. 303

<sup>84</sup> Ibid

<sup>85</sup> UN Fish Stocks Agreement (n 22) art 5(f).

<sup>86</sup> UNEP (2021) p. 38

<sup>87</sup> Nilüfer Oral, Chapter 11 ‘From the Plastics Revolution to the Marine Plastics Crisis’, p. 303

<sup>88</sup> RFMOs are treaty-based bodies whose objective is to ensure the sustainable conservation and management of shared fish stocks and other living marine resources through international cooperation. Article 9 of Fish stocks agreement, It will be explained also in Chapter 4 of the Thesis

<sup>89</sup> Adopted 31 October 1995, fao Doc 95/20/Rev/1 (1998).

## **2.4 Marine plastic litter, Dumping and Vessel-Source Pollution**

The majority of plastic pollution comes from land-based sources, but an important part also comes from shipping, both during regular operations and through disposal/dumping of waste. UNCLOS contains specific articles addressing pollution from dumping in the marine environment (Article 210) and pollution from vessels (Article 211). Article 210 explicitly requires States to enact laws and regulations aimed at preventing, reducing, and controlling marine pollution caused by dumping, ensuring that such activities receive approval from the relevant state authorities.<sup>90</sup> This mirrors the provision in Article 207(3) concerning land-based pollution sources, urging States to develop global and regional rules, standards, and recommended practices through appropriate international organizations or diplomatic conferences to manage such pollution.<sup>91</sup>

The Law of the Sea Convention does not introduce any new technical or pollution regulations for shipping but refers to norms that have been established within the International Maritime Organization (IMO). The International Maritime Organization (IMO), a specialized agency of the United Nations focused on international shipping, is the primary international organization overseeing shipping activities.<sup>92</sup> Among the instruments that the IMO has adopted over the years to deal with marine pollution are the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and its 1996 Protocol and the International Convention for the Prevention of Pollution from Ships (MARPOL ) that are also of important relevance to plastic pollution mitigation.

### **2.4.1 London Convention (LC) and London Protocol (LP)**

Another IMO instrument that is relevant to marine plastic litter is the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and the Protocol to the Convention from 1996 (1996 London Protocol). Dumping, according to article 1(5) UNCLOS, is ‘the deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea and any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea at sea and does not include the disposal of

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<sup>90</sup> UNCLOS, article 210 (1) and 210 (3)

<sup>91</sup> Nilüfer Oral, Chapter 11 ‘From the Plastics Revolution to the Marine Plastics Crisis’, p. 296

<sup>92</sup> Ibid

waste'.<sup>93</sup> The importance of this Convention is found in the important role it has when it comes to non-land-based waste management.<sup>94</sup>

The London Convention's principal goal is to prevent the intentional disposal of waste or other materials into the marine environment and eliminate the pollution caused by that to the marine environment.<sup>95</sup> The London Convention features three annexes: Annex I identify certain wastes for which dumping is forbidden, and it also bans the incineration of industrial waste and sewage sludge at sea. Annex II requires a special permit obtained in advance for the dumping of listed wastes, while Annex III wastes can be dumped under a general permit process. In 1996, a new protocol was adopted by the Parties to the Convention (the London Protocol), updating the convention to reflect recent environmental developments. The main difference between the Convention and the Protocol is found in the approach they follow.

More specifically, the London Convention adopts a 'listing approach' as the convention in Article IV prohibits dumping of wastes listed in Annex I, according to which dumping is prohibited except for the listed substances including plastics as part of other synthetic materials like fishing gear.<sup>96</sup> Plastics may be disposed of in the ocean as long as they are quickly converted to inert forms by physical, chemical, or biological processes and as long as they don't contaminate or make marine life unfit for human consumption. The Convention further states that certain materials included in Annex I of the London Convention, such as persistent plastics, may be disposed of if they are found in dredged material or sewage sludge.<sup>97</sup>

The London Protocol takes a more stringent stance, using a 'reverse listing approach' that forbids dumping altogether, with the exception of materials that are expressly allowed.<sup>98</sup> The Protocol in Article 4.1 discusses that the Parties "shall prohibit the dumping of any wastes or

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<sup>93</sup> UNCLOS, article 1(5)

<sup>94</sup> Frank V (2007) *The European Community and marine environmental protection in the international law of the sea – implementing global obligations at the regional level*. Brill/Nijhoff, Boston

<sup>95</sup> London Convention art. 3(1)(a)

<sup>96</sup> Stöfen-O'Brien, A., Werner, S. (2018). Waste/Litter and Sewage Management. In: Salomon, M., Markus, T. (eds) *Handbook on Marine Environment Protection*. Springer, Cham., p. 768

<sup>97</sup> Ibid

<sup>98</sup> Aleke Stöfen-O'Brien, Abolfazl Najj, Amy L. Brooks, Jenna R. Jambeck, Farhan R. Khan, *Marine plastic debris in the Arabian/Persian Gulf: Challenges, opportunities and recommendations from a transdisciplinary perspective*, *Marine Policy*, Volume 136, 2022, 104909, ISSN 0308-597X, <https://doi.org/10.1016/j.marpol.2021.104909> (<https://www.sciencedirect.com/science/article/pii/S0308597X21005200>), p. 4-5

other matter with the exception of those listed in Annex I.”<sup>99</sup> The Annex features a brief list with only eight categories, and it does not specifically mention plastics or related items.<sup>100</sup> This omission suggests that plastics are generally not intended to be dumped. However, under category 4, which permits the dumping of vessels and platforms, components made of plastic might be included.<sup>101</sup> These components could eventually break down and add to marine pollution. Furthermore, the ambiguity of the seventh category, which covers "bulky items primarily composed of iron, steel, concrete, and other materials deemed non-harmful," complicates matters. This category is designed for specific scenarios, such as in remote island communities lacking viable disposal alternatives. The inclusion of "non-harmful materials" in this category is unclear and could potentially be interpreted to include plastics, according to the wording used.<sup>102</sup>

The convention and protocol do not contain any particular responsibilities with relation to land-based plastic pollution sources, even though they both call upon parties to safeguard and conserve the marine environment from all sources of pollution.<sup>103</sup> The London Convention currently has 87 Parties, and the 1996 Protocol has only 49 Parties.

## **2.4.2 MARPOL**

States have generally embraced the IMO's significant role in a highly controlled manner with the main IMO treaty regulating shipping activities being MARPOL Convention. In 1973 States adopted the International Convention for the Prevention of Pollution from Ships (MARPOL) that came into force in 1983 and aims to address ship-related international marine pollution, other than dumping. This convention is linked to article 211 of UNCLOS that refers to vessel – source pollution as mentioned above.<sup>104</sup>

MARPOL Convention focuses on the establishment of rules and standards that aim at the prevention, reduction and control of the amount of waste being discharged into the sea from

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<sup>99</sup> London Protocol, article 4.1.

<sup>100</sup> Nagtzaam, G., Van Calster, G., Kourabas, S., & Karataeva, E. (2023). "Chapter 6: Current international law and plastic". In *Global Plastic Pollution and its Regulation*. Cheltenham, UK: Edward Elgar Publishing. Retrieved Jun 18, 2024, p. 183 – 184

<sup>101</sup> Ibid

<sup>102</sup> Ibid

<sup>103</sup> International Maritime Organization (IMO), Review of the Current State of Knowledge Regarding Marine Litter in Wastes Dumped at Sea under the London Convention and Protocol - Final Report (LC 38/16) (2016), Annex 8

<sup>104</sup> UNCLOS, article 211

vessels. MARPOL, up until today, has adopted six annexes including Annex V on garbage pollution from ships. It should be noted that the Convention covers all ships, unless provided otherwise, including fishing vessels.<sup>105</sup> When it comes to plastics, more specifically, MARPOL's Annex V that underwent a major revision in 2011,<sup>106</sup> regulating 'the prevention of pollution by garbage from ships', now covers also plastic waste.

The amended Annex V expands the definition of garbage to encompass all types of waste, both operational and household, including plastics, cargo residues, and fishing gear.<sup>107</sup> It also bans the discharge of all garbage into the sea, with the exception of specific circumstances outlined in Regulations 4, 5, and 6 of the Annex (generally related to food waste, cargo residues, cleaning agents and additives and animal carcasses). Plastics are defined broadly within the revised Annex V to include items such as synthetic ropes, synthetic fishing nets, plastic garbage bags, and ashes from incinerated plastic products.<sup>108</sup> Moreover, when plastic is combined with other types of garbage, the entire mixture must be treated as plastic and is subject to strict handling and discharge procedures.<sup>109</sup>

Moreover, Annex V (reg 3(2)) strictly forbids the disposal of plastics at sea as the list of prohibited discharges contains "plastics, synthetic ropes, fishing gear, plastic garbage bags.". It is permissible under special circumstances, if the disposal is deemed "necessary for the purpose of securing the safety of a ship and those on board or saving life at sea" or in the case that a ship is damaged.<sup>110</sup> However, if the loss of synthetic fishing nets is accidental it is not covered by the prohibition if also 'all reasonable precautions have been taken to prevent such loss'.<sup>111</sup> To enable ships to properly dispose of their waste when they enter a port, Parties to Annex V are required to supply garbage receptacles at their ports.<sup>112</sup>

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<sup>105</sup> UN Environmental Assembly of the UN Environment Programme, Combating marine plastic litter and microplastics: an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches, first meeting, May 2018

<sup>106</sup> IMO, The Marine Environment Protection Committee, Resolution MEPC.201(62), adopted 15 July 2011, Amendments to the Annex of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships 1973 (Revised MARPOL Annex V) .

<sup>107</sup> Ibid

<sup>108</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', p. 299

<sup>109</sup> IMO, Resolution mepc.219(63): 2012 Guidelines for the Implementation of marpol Annex v, adopted 2 March 2012, para 2.4.6.

<sup>110</sup> Annex V reg. 7 (1.1 - 1.2)

<sup>111</sup> Annex V reg. 7 (1.3)

<sup>112</sup> Annex V reg. 8



The International Maritime Organization (IMO), that is responsible for the implementation of MARPOL Annex V, adopted in 2012 Guidelines for the Implementation of Annex V that were revised in 2017.<sup>113</sup> Regulation 10.3.2 and 3 of Annex V of MARPOL requires ships with of 400 gross tonnages and over and ships certified to carry 15 or more people to have a garbage record plan and a Garbage record book.<sup>114</sup> Moreover, regulation 10.2 of the revised MARPOL Annex V requires that every ship of 100 gross tonnage and above, and every ship which is certified to carry 15 or more persons and fixed or floating platforms must carry a Garbage Management Plan based on the 2012 Guidelines for the Development of Garbage Management Plans (resolution MEPC.220(63)).<sup>115</sup>

The guideline regarding plastics, which was established in 2017, restates the ban on discharging any kind of plastic into the ocean.<sup>116</sup> Even though Annex V is an optional Annex is currently counting 155 parties equal to 98,64% of the world's shipping tonnage,<sup>117</sup> with however limited enforcement making compliance is a significant problem that needs further attention.<sup>118</sup> The overall efficacy of international agreements may be hampered by inadequate national regulations that limit their effectiveness in reducing plastic litter.

### **2.4.3 Basel Convention**

Worldwide, 343 million metric tons (Mt) of primary plastic waste are created; less than half of this is recycled, with the other portion being burned or disposed of.<sup>119</sup> This 'disposal culture' that introduces an enormous amounts of plastics has negative consequences to the marine environment that can be caused from the loss of plastics and single-use plastics as well as the

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<sup>113</sup> International Maritime Organization (IMO), 2012 Guidelines for the Development of Garbage Management Plans, MEPC.220(63), (Resolution MEPC.220(63)) [http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-\(MEPC\)/Documents/MEPC.220\(63\).pdf](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-(MEPC)/Documents/MEPC.220(63).pdf).

<sup>114</sup> MARPOL, Annex V, reg 10.3.6.

<sup>115</sup> MARPOL, Annex V, reg 10.2 and UN Environmental Assembly of the UN Environment Programme, Combating marine plastic litter and microplastics: an assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches, first meeting, May 2018, p. 24

<sup>116</sup> MARPOL Annex V reg. 3.2

<sup>117</sup> Aleke Stöfen-O'Brien and Stefanie Werner, Handbook On Marine Environment Protection : Science, Impacts And Sustainable Management, Chapter 19 ' Waste/Litter and Sewage Management' 2018, p.759

<sup>118</sup> Nilüfer Oral, Chapter 11 'From the Plastics Revolution to the Marine Plastics Crisis', page 188

<sup>119</sup> Kibria, M.G., Masuk, N.I., Safayet, R. et al. Plastic Waste: Challenges and Opportunities to Mitigate Pollution and Effective Management. *Int J Environ Res* **17**, page 20 (2023). <https://doi.org/10.1007/s41742-023-00507-z>

toxic chemicals they might contain.<sup>120</sup> That situation make waste management crucial for the sustainable use of the oceans. The Basel Convention addresses an important part of the life cycle of plastics that has to do with their transfer and movement.

The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, counting 190 parties including the big plastic producers, has the aim of reducing the movement of hazardous waste and their impact to the environment and promote ‘near-source’ disposal.<sup>121</sup> According to the Convention, states must limit the transboundary movement of hazardous waste, manage hazardous waste in an environmentally sound manner, and reduce the amount of hazardous waste produced.<sup>122</sup> According to the Preamble of the Convention “the most effective way of protecting human health and the environment from the dangers posed by hazardous and other wastes” is to reduce the quantity of such waste created “to a minimum in terms of quantity and/or hazard potential.”<sup>123</sup>

### **The Basel Convention Amendment**

Before the so called 2019 Plastic Waste Amendment, Basel Convention plastic waste was not covered in a proper way by the scope of the Convention. Under the convention, solid plastic wastes were usually regarded as non-hazardous.<sup>124</sup> Article 1 of the treaty only applied to plastics that were collected and disposed of in household garbage that were susceptible to transboundary movement. Annex I of the Convention sets the categories of waste that fall under the term ‘hazardous waste’ and are controlled under Basel. However, plastic was not defined in an explicit way in any of the Convention’s articles and annexes, neither as ‘hazardous’<sup>125</sup> nor as ‘other’ waste.<sup>126</sup>

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<sup>120</sup> Eva Romée van der Marel, *Trading Plastic Waste in a Global Economy: Soundly Regulated by the Basel Convention?*, *Journal of Environmental Law*, 2022, 34, 477–497 <https://doi.org/10.1093/jel/eqac017> Advance access publication 25 September 2022, p. 477-478

<sup>121</sup> Raubenheimer, K., 2016. *Towards an Improved Framework to Prevent Marine Plastic Debris*. Doctor of Philosophy Thesis. Australian National Centre for Ocean Resources and Security (ANCORS). <http://ro.uow.edu.au/theses/4726>, p. 77

<sup>122</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, article 4(2) and (8)

<sup>123</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Preamble.

<sup>124</sup> Basel Convention Annex ix item B3010 before amendment by cop19.

<sup>125</sup> Annex I and III of the Convention

<sup>126</sup> Annex II of the Convention

Waste types that are considered hazardous are listed in Annex I, unless they don't have any of the hazardous characteristics listed in Annex III,<sup>127</sup> while Annex VIII lists wastes that are presumed to be harmful and are consequently regulated by the Basel Convention. As explained by Eva Romee on her article, Annex IX lists wastes assumed to be non-hazardous and so fall outside the scope of the Convention.<sup>128</sup> However, Parties of the Convention they are allowed to characterize themselves in their domestic legislation particular waste as hazardous, that after this characterization will fall under the Basel Convention.<sup>129</sup> Since hazardous wastes and other wastes that need special treatment (referred to as controlled wastes) are largely governed by the same Basel Convention methods and principles, there is generally little need to distinguish between the two types of wastes.<sup>130</sup>

In response to increased public concern and awareness of the issue of marine plastic litter and microplastics, Norway made a proposal in June 2018 to amend the Basel Convention's annexes to address plastic waste within its provisions. COP14 (2019) decided to proceed to the amendment of a number of Annexes known as plastic amendments.<sup>131</sup> Plastic waste that is considered hazardous and other plastics are managed under the Convention's mechanisms of environmental sound manner (ESM)<sup>132</sup> and prior informed consent (PIC procedure).<sup>133</sup> COP 14 adopted amendments regarding Annex II, VIII and IX making the scope of the Convention regarding plastic waste clearer.<sup>134</sup>

Starting with Annex II, the amendment<sup>135</sup> make it clear that all plastic wastes, including mixtures of such waste, are now classified as 'other wastes' requiring special consideration,

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<sup>127</sup> Basel Convention Article 1(1)

<sup>128</sup> Eva Romée van der Marel, *Trading Plastic Waste in a Global Economy: Soundly Regulated by the Basel Convention?*, *Journal of Environmental Law*, 2022, 34, 477–497 <https://doi.org/10.1093/jel/eqac017> Advance access publication 25 September 2022, p. 480 - 483

<sup>129</sup> Article 1(1)(b) of Basel Convention

<sup>130</sup> Ibid

<sup>131</sup> Basel Convention cop decision bc 14/12 (2019), 'Amendments to Annexes ii, viii and ix to the Basel Convention' unep/chw.14/12 IISD

<sup>132</sup> ESM is defined under Article 2 (8) BC as 'taking all practicable steps to ensure that [controlled wastes] are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes'.

<sup>133</sup> This means that exporting nations must formally request the approval of importing nations in order to accept shipments of plastic waste and guarantee that the importing nations are equipped to handle plastic waste in an environmentally sound manner.

<sup>134</sup> The amendments came into force on January 1st 2021

<sup>135</sup> With entry code Y48

unless they are deemed to be non-hazardous, in that case falling under Annex IX or presumed hazardous falling in that case under Annex VIII.<sup>136</sup> It is clear now that plastic waste considered ‘hazardous’ or ‘other waste’ fall under the scope of the Basel Convention.<sup>137</sup> The amendment of Annex VIII<sup>138</sup> provides clarification on the range of plastic wastes that are deemed hazardous and must follow the PIC procedure. Therefore, in order to ensure that plastic debris stay out of the ocean, prospective importing nations must demonstrate that they can handle it in an environmentally sound manner. Annex IX amendment<sup>139</sup> refers and formulates the non-hazardous categories of plastics that are exempt from the PIC procedure because they are considered non-hazardous and thus fall outside the scope of the Convention. More specifically, Annex IX amendment specifies certain plastic wastes eligible for recycling under defined conditions. This includes cured resins and polymers that are free from halogens and fluorine, with the stipulation that these materials must be recycled responsibly and should be nearly devoid of contaminants and other waste types.<sup>140</sup> Additionally, the entry covers waste mixtures made up of polyethylene (PE), polypropylene (PP), or polyethylene terephthalate (PET). These mixtures must also be recycled in an environmentally responsible manner, with each type of plastic processed separately and the materials nearly free from any contamination and extraneous wastes.<sup>141</sup>

To support the Parties in their new endeavors, the Plastic Waste Partnership was founded by the COP. It serves as a worldwide platform that unites nations from all over the world, collaborating with stakeholders from the business community and civil society to advance environmentally sound management of plastic waste as well as the prevention and mitigation of its generation.<sup>142</sup> Other actions that were adopted is a series of technical guidelines that enhance environmentally sound management of plastic waste and regulate transboundary

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<sup>136</sup> Eva Romée van der Marel, *Trading Plastic Waste in a Global Economy: Soundly Regulated by the Basel Convention?*, *Journal of Environmental Law*, 2022, 34, 477–497 <https://doi.org/10.1093/jel/eqac017> Advance access publication 25 September 2022, p. 481

<sup>137</sup> *Ibid*

<sup>138</sup> With entry code A3210

<sup>139</sup> With entry code B3011

<sup>140</sup> Wingfield, S., Lim, M. (2022). *The United Nations Basel Convention’s Global Plastic Waste Partnership: History, Evolution and Progress*. In: Bank, M.S. (eds) *Microplastic in the Environment: Pattern and Process. Environmental Contamination Remediation and Management*. Springer, Cham. [https://doi.org/10.1007/978-3-030-78627-4\\_10](https://doi.org/10.1007/978-3-030-78627-4_10), Chapter 10, p. 327

<sup>141</sup> *Ibid*

<sup>142</sup> *Ibid*

movement,<sup>143</sup> while a committee was formed to assist parties with their duties under the Convention.<sup>144</sup> The amendments are anticipated to have a major effect on how plastic waste is treated worldwide, which in turn will have an impact on how much of it is produced and how it is handled domestically.

Basel Convention constitutes the most extensive international instrument for waste management to date, however, because it only addresses a relatively small part of the plastics life cycle, it only provides a part of the solution to the plastics problem making the treaty essentially inadequate to address the bigger issue at hand. Even though the 2019 amendments adopt a more comprehensive policy when it comes to plastic waste, nevertheless, the Convention falls short of fully utilizing recyclable plastic waste's resource potential, particularly in cases where it is transported overseas. By virtue of Annex IX, recyclable plastic wastes and some potentially hazardous plastic wastes remain substantially beyond the purview of the Convention, so long as they are virtually completely free of contamination and intended for ESM recycling.<sup>145</sup>

#### **2.4.4 Stockholm Convention on Persistent Organic Pollutants**

Among the chemicals and wastes agreements Stockholm Convention that was adopted in 2001, is also relevant when it comes to marine plastic pollution and should be mentioned as it addressed the manufacturing part of the plastic life cycle. The additives used in the manufacturing of plastics vary and can pose risks for both the environment and human health, as it was pointed out in the UN Environmental Assembly in Nairobi in December 2017. However, these affects are not reflected in an adequate way in the existing international framework.<sup>146</sup> The Stockholm Convention on Persistent Organic Pollutants (POPs) regulates

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<sup>143</sup> BC-14/13, Decision BC-VI/21

<https://www.basel.int/TheConvention/ConferenceoftheParties/ReportsandDecisions/tabid/3303/Default.aspx>

<sup>144</sup> Basel Convention, 'The Basel Convention Mechanism for Promoting Implementation and Compliance' (2006), <https://www.basel.int/TheConvention/ImplementationComplianceCommittee/Overview/tabid/2868/Default.aspx>

<sup>145</sup> Eva Romée van der Marel, Trading Plastic Waste in a Global Economy: Soundly Regulated by the Basel Convention?, *Journal of Environmental Law*, 2022, 34, 477–497 <https://doi.org/10.1093/jel/eqac017> Advance access publication 25 September 2022, p. 496-497

<sup>146</sup> United Nations Environment Assembly of the United Nations Environment Programme, Third session Nairobi, 4–6 December 2017, Combating marine plastic litter and microplastics: An assessment of the effectiveness of relevant international, regional and subregional governance strategies and approaches (UNEP/EA.3/INF/5), 19.

the protection of the environment from the exposure to POPs<sup>147</sup> by adopting a precautionary approach. The Convention regulates the use and disposal of certain additives used in the production of plastics and mandates that the parties should take action to reduce or completely stop releasing POPs into the environment. The goal of the Convention is to limit, ban, or eradicate the deliberate production and usage of chemicals specified in Annexes A and B, and to diminish or eradicate emissions from the accidental production of chemicals outlined in Annex C of the Convention.<sup>148</sup>

The Convention is addressing the crucial role that the manufactures have with the use of POPs when it comes to lessening the impact of their products in the environment throughout their whole lifecycle, as per article 3, focusing on the first stage of plastic production, manufacturing of plastics.<sup>149</sup> Furthermore, the Convention with article 9 refers to information exchange between States while article 10 focuses on the importance of informing the public about the dangerous qualities of the chemicals they manufacture.<sup>150</sup> Therefore, limiting the usage of specific POPs during manufacturing can influence the design process and lower the risk potential of plastic items.<sup>151</sup> Several POPs that are listed in the Convention are used in the manufacture of plastics, giving them some specific qualities, for example bisphenol A (BPA), phthalate (DEHP), diisodecyl phthalate (DIDP), diisononyl phthalate (DINP) and butyl benzyl phthalate (BPP) are used in the manufacturing of plastics to increase qualities such as flexibility, transparency and longevity .<sup>152</sup> These enhancements often lead to increased environmental persistence and potential ecological risks.

Parties shall specifically forbid the import and export of the substances mentioned in Annex A,<sup>153</sup> as well as their manufacture and use, unless the party in question is exempt from this requirement. Additionally, they will limit the usage and manufacturing of the substances

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<sup>147</sup> Pops are naturally occurring chemical compounds that, when discharged into the environment, become extensively dispersed, accumulate in the fatty tissues of living things, resist degradation for incredibly long periods of time, are toxic to both people and wildlife, and are susceptible to bioaccumulation.

<sup>148</sup> The Stockholm Convention, article 3 and 5

<sup>149</sup> Stockholm Convention article 3(a)(i)

<sup>150</sup> Stockholm Convention article 9 and 10

<sup>151</sup> Raubenheimer, K. & McIlgorm, A. (2018). Can the Basel and Stockholm Conventions provide a global framework to reduce the impact of marine plastic litter?. *Marine Policy*, 96, p. 285-290.

<sup>152</sup> Nagzaam, Gerry, et al. *Global Plastic Pollution and Its Regulation : History, Trends, Perspectives*, Edward Elgar, Chapter 6, 'Current international law and plastic', 2023, p. 197-198

<sup>153</sup> Stockholm Convention Annex A

mentioned in Annex B<sup>154</sup> while parties are required by Article 5 of the Stockholm Convention to take action to limit and perhaps eliminate the discharges of the substances listed in Annex C.<sup>155</sup>

However, some POPs listed in Annex A can be exempted and used in the manufacture of plastics, for example brominated diphenyl ethers (BDEs) that are added to plastic to make it flame retardant, while parties to the convention can keep recycling plastics that may contain them until 2030.<sup>156</sup> When it comes to marine plastic litter the Stockholm Convention's annexes include a wide range of substances that are commonly found in aquatic ecosystems and have their origins in human activity. These chemicals tend to concentrate at the surface of plastic pieces, especially microplastics, from the ambient seawater and through there to the food chain.<sup>157</sup>

Unfortunately, the Convention is limiting its application and regulates only the chemicals that are considered POPs and cannot regulate effectively other plastic materials, like food packaging, that do not contain POPs but can be found as waste in the aquatic environment.<sup>158</sup> As only a small percentage of plastics contain POPs, with about 26% of global plastics used solely for packaging,<sup>159</sup> most plastics are manufactured with additives that do not fall under the current scope of the convention, many of which are concerning due to their potential endocrine-disrupting effects.<sup>160</sup> Consequently, the treaty currently has a minimal impact on the vast majority of plastic products.

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<sup>154</sup> Stockholm Convention Art 3(1)

<sup>155</sup> Ibid Article 3 (2)

<sup>156</sup> Stockholm Convention, Annex A, part V

<sup>157</sup> Zhihao Yuan, Rajat Nag, Enda Cummins, Human health concerns regarding microplastics in the aquatic environment - From marine to food systems, *Science of The Total Environment*, Volume 823, 2022, 153730, ISSN 0048-9697, <https://doi.org/10.1016/j.scitotenv.2022.153730>, p. 3-4

<sup>158</sup> Raubenheimer, K. & McIlgorm, A. (2018). Can the Basel and Stockholm Conventions provide a global framework to reduce the impact of marine plastic litter?. *Marine Policy*, 96, p. 285-290.

<sup>159</sup> Raubenheimer and McIlgorm, 'Can the Basel and Stockholm Conventions provide a global framework?', p. 288

<sup>160</sup> Nagtzaam, Gerry, et al. *Global Plastic Pollution and Its Regulation : History, Trends, Perspectives*, Edward Elgar, Chapter 6, 'Current international law and plastic', 2023, p. 198-199

### **3 Stakeholders and plastic regime - Cities, Industries and Public participation**

Marine plastic pollution persists as a multifaceted challenge. The complexity and urgency of plastic pollution, underscored by the significant volumes of plastics entering the oceans, have thrust this issue and has brought it in the spotlight.<sup>161</sup> Notably, high-profile declarations, such as those made by the G7 Leaders in 2018, have played a pivotal role in elevating global awareness regarding oceanic plastic pollution. Historically, existing treaties have predominantly adopted a state-centric approach that mostly addressees sovereign States. However, marine plastic pollution transcends national boundaries and necessitates a multilevel and multi-stakeholder approach. The ongoing negotiations of the Plastics Treaty should examine the participation of three types of non-State actors – cities, industries and public participation - within the legal frameworks designed to combat plastic pollution. These specific stakeholders are chosen to be analyzed in this chapter because of their importance to plastics’ life cycle and plastic policy. Each stakeholder will be analyzed furthermore in the sections below. More specifically we will look at why they should be included and how they are currently included in the relevant international law.

#### **3.1 Cities**

Current initiatives to strengthen maritime environmental protection should involve cities as crucial players and view them under international law as emerging actors and subjects. For example, among the UN Sustainable Development Goals (SDGs) that were adopted by the UN Member States in 2015, SDG 11 is referring to Sustainable cities while SDG 14 to Life below water.<sup>162</sup> According to Aleke Stöfen-O’Brien et al all these SDGs are interrelated when it comes to sustainable ocean governance.<sup>163</sup>

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<sup>161</sup> Garcia, B., Fang, M. M., & Lin, J. (2019). Marine Plastic Pollution in Asia: All Hands on Deck!. *Chinese Journal of Environmental Law*, 3(1), 11-46., p. 12-14

<sup>162</sup> UN Department of Economic and Social Affairs, ‘The 17 Goals’ available at [sdgs.un.org/goals](https://sdgs.un.org/goals); accessed 19 March 2024.

<sup>163</sup> Stöfen-O’Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672. p. 652-653



In recent decades, urban centers have experienced significant expansion.<sup>164</sup> This surge in population, coupled with industrial advancement, has precipitated a complex array of environmental impacts, among which plastic waste is notably significant.<sup>165</sup> For the purposes of this thesis, attention will be directed towards what Aleke Stöfen-O'Brien terms 'Ocean Cities'.<sup>166</sup> These entities are conceptualized as interconnected with the ocean via atmospheric and fluvial pathways and influence food systems through their production and consumption patterns. Consequently, their sphere of influence extends beyond the high seas to include various marine zones within their national boundaries, as well as shorelines, waterways, wetlands, lakes, and rivers.<sup>167</sup>

Globally, the majority of major cities are situated in proximity to coastal regions. This is attributable to the convergence of favorable conditions—geographical, economic, historical, and employment opportunities—that these areas typically offer, thereby attracting migration. This proximity to coastlines also positions these cities as pivotal contributors to marine plastic pollution, encompassing plastic waste, marine debris, and synthetic fibers from clothing, which may enter marine environments through urban sewage systems. The escalation in urban populations inherently amplifies waste production, exacerbating the challenge of marine pollution.<sup>168</sup>

### **3.1.1 Cities in international law**

Cities are sub – national bodies that represent the way we can see international policies from international treaties taking place in a national – local level.<sup>169</sup> Cities , as non – state actors, cannot be subject of international law as they are not recognized as legal persons in international law.<sup>170</sup> Cities are not included in any international treaty, UN convention, or almost

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<sup>164</sup> Bettencourt LMA. Urban growth and the emergent statistics of cities. *Sci Adv.* 2020 Aug 19;6(34):eaat8812. PMID: 32875099; PMCID: PMC7438098. Pages 9-11, P Newman, 'The environmental impact of cities' (2006) 18(2) *Environment and Urbanization* 275–295, p. 279.

<sup>165</sup> Stöfen-O'Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672. <https://doi.org/10.1163/15718085-bja10102> , p. 645

<sup>166</sup> *Ibid*

<sup>167</sup> *Ibid*

<sup>168</sup> *Ibid*

<sup>169</sup> Blank, Yishai, *The City and the World*. *Columbia Journal of Transnational Law*, Vol. 44, No. 3, 2006, Available at SSRN: <https://ssrn.com/abstract=1020141> , p. 883

<sup>170</sup> The ICJ in the *Reparation for Injuries* opinion gave the definition that: an international person ... is ... capable of possessing international rights and duties, and ... has capacity to maintain its rights by bringing international

International Court of Justice (ICJ) decision that acknowledges them as legal bodies under international law.<sup>171</sup> That has its link to the principle of sovereignty stating that States are sovereign of their territory and as a result subjects of international law. Cities are seen as integral parts of their states and not as separate entities even if at a national level hold a high degree of autonomy. Cities have a unique function as they intercede between the State and the public.<sup>172</sup> However, the significance of cities as participants in public international law has not received as much attention as it should. The literature on international law has not given much attention to the global function of cities.<sup>173</sup> International Law follows a state - centric approach based on the idea that States, not cities, may conclude international treaties and that there is a clear division between domestic and foreign issues.

Globalization, however, has made the limits of this division blurry. Cities and municipalities now have additional responsibilities deriving from international law, which obliges them to adhere to international law in addition to national legal standards. The degree to which various international treaties and agreements address cities' responsibilities will be examined in the next section.

### **3.1.1.1 Coastal cities and sustainable goals**

The role of cities in international environmental law has started to develop and be more active. A well-recognized example are the UN Sustainable Development Goals (SDGS).<sup>174</sup> SDG 11 refers to Sustainable cities and communities while SDG 14 refers to life below water with the goal of making cities and human settlements inclusive, safe, resilient, and sustainable and by focusing on excellent urban governance and establishing goals such fair access to

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claims (Reparation for Injuries Suffered in the Service of the United Nations (Advisory Opinion), 1949 ICJ Reports 174, 179.), Blank, Yishai, The City and the World. Columbia Journal of Transnational Law, Vol. 44, No. 3, 2006, Available at SSRN: <https://ssrn.com/abstract=1020141> , p. 884

<sup>171</sup> Ibid

<sup>172</sup> Ibid

<sup>173</sup> Aust and Nijman (eds) (n 9); H Aust, 'Shining cities on the hill? The global city, climate change, and international law' (2015) 26(1) EJIL 255–178, at pp. 255, 256; JE Nijman, 'Renaissance of the city as global actor: The role of foreign policy and international law practices in the construction of cities as global actors' in G Hellmann et al. (eds), Blank, Yishai, The City and the World. Columbia Journal of Transnational Law, Vol. 44, No. 3, 2006

<sup>174</sup> UN Department of Economic and Social Affairs, 'The 17 Goals' available at [sdgs.un.org/goals](https://sdgs.un.org/goals)

environment.<sup>175</sup> ESCAP platform shows the interaction between the two goals.<sup>176</sup> Under the existing structure of the framework, it is the responsibility of individual cities to achieve the SDGs using the methods and strategies they have selected.<sup>177</sup>

### **3.1.1.2 Cities and UNCLOS**

Public international law has not given much attention to the role of non-State players, such as cities, as was previously established. However, cities may already be incorporated into the regulatory framework for ocean governance through a variety of public international law tools. It is really challenging to fully analyze and understand the role of cities in international ocean governance. Cities, as it was said before, are one of the main ways international policies are taking place at a national level.

UNCLOS do not directly refer to cities. The convention among a variety of rights and obligations establishes the so called ‘maritime zones’. Cities may have an impact on various maritime zones designated under the UNCLOS, thus it is important to consider how this zonal approach relates to city-related activities and impacts.<sup>178</sup> When it comes to plastic pollution, plastics that come from city activities can travel long distances and transport through the oceans and in different maritime zones. Cities thus contribute to transboundary issues on a worldwide level.<sup>179</sup>

Part XII of UNCLOS on Article 207 sets the obligation for the States to prevent, reduce and control pollution of the marine environment from all sources, including land-based sources. This obligation is carried out on a national level by laws of coastal states.<sup>180</sup> According to article 197 States are also required by UNCLOS to collaborate on a regional and worldwide scale to

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<sup>175</sup> ‘UN Sustainable Development Goals Knowledge Platform, ‘Sustainable Development Goal 11’ (captured 18 December 2019) available at <https://perma.cc/4EHZ-XS7C> , ‘UN Sustainable Development Goals Knowledge Platform, ‘Sustainable Development Goal 14’ <https://sdgs.un.org/goals/goal14> : accessed 22/5/2024

<sup>176</sup> ESCAP, “Cities and the SDGs’ (Urban SDG Knowledge Platform) available at <http://www.urbansdgplatform.org/index.msc>; accessed 22 May 2024

<sup>177</sup> Stöfen-O’Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672. <https://doi.org/10.1163/15718085-bja10102> , p. 653

<sup>178</sup> Stöfen-O’Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672. , p. 656

<sup>179</sup> Ibid

<sup>180</sup> Ibid

tackle marine plastic pollution meaning that also coastal cities, as local jurisdictions, should collaborate with each other and regulate their maritime zones. That can happen, for example, with collaboration between coastal and port cities in order to address land- based and sea-based plastic pollution.<sup>181</sup>

### **3.1.1.3 Cities and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and London Protocol**

Another activity that highlights the role that cities have in plastic pollution is dumping. The dumping of waste in the marine environment is regulated under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter<sup>182</sup> and London Protocol (LP).<sup>183</sup> The LP, with some exceptions, forbids dumping in the ocean.<sup>184</sup> The rise in Ocean cities' waste has led to the increase of the demand of waste infrastructures for materials, like plastics, that need to be disposed of, making cities a crucial player when it comes to waste management facilities.

### **3.1.1.4 Cities and other international agreements**

MARPOL convention is only indirectly referring to cities by adopting measures that are proven beneficial for the population and the environment of port and ocean cities.<sup>185</sup> Even though MARPOL is an instrument referring to international shipping it can be argued that its regulations include and affect coastal and port cities as for example regulations regarding wastewater management plans and standards applying under their water jurisdiction.<sup>186</sup>

As Stöfen O'Brien et al mention in their article, the UN Convention on Biological Diversity (CBD) has adopted numerous decisions pertaining to cities and subnational administrations under the Conference of the Parties (COP). An interesting approach that the CBD follows is the importance of indigenous people when it comes to sustainable use of biological diversity and

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<sup>181</sup> Stöfen-O'Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672., p. 657

<sup>182</sup> Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, 13 November 1972, in force 30 August 1975)

<sup>183</sup> Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, 7 November 1996, in force 24 March 2006)

<sup>184</sup> LP, Annex 1, Article 4(1)(b)

<sup>185</sup> K Sekimizu, 'OECD Port Cities Conference' (IMO, 9 September 2013) available at <https://www.imo.org/en/MediaCentre/Sec.aspx>; accessed 23 May 2024

<sup>186</sup> Stöfen-O'Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672., p. 658-659

their close link to the cities as Indigenous and local communities are integral to the cities in which they exist because they may directly participate in the decision-making process and represent the unique socio-political context.<sup>187</sup>

Another relevant agreement is the UN Fish Stocks Agreement and the FAO Code of Conduct for Responsible Fisheries (CCRF) referring to marine environment and living resources.<sup>188</sup> The FAO code assist local communities like cities in the implementation process of the agreement. As stated in the CCRF, towns may implement the necessary policies to create ethical fishing methods and the usage of environmentally friendly fishing equipment.<sup>189</sup>

Additionally, when it comes to chemicals and waste agreements and local communities, the Stockholm Convention's Articles 7, 9, and 10 mandate that the local level—and especially the cities —be included in the process of implementation.<sup>190</sup> Basel Convention, after the 2019 amendments, regulates the trade of hazardous waste and the global trade in plastic waste. While the language of the Convention does not specifically mention cities or local governments, the Guidance Document on National Reporting refers to the local context in the Basel Convention. It recognizes types of waste that must be managed by working with neighborhood partners and requesting technical support that should be provided in compliance with regional protocols.<sup>191</sup> Cities are responsible, according to their capacities, to manage waste in their municipality zone. Many times, local governments of cities have adopted measures due to missing national legislation.<sup>192</sup>

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<sup>187</sup> Stöfen-O'Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672., p. 660

<sup>188</sup> Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (New York, 4 August 1995, in force 11 December 2001), Food and Agriculture Organisation (FAO), Code of Conduct for Responsible Fisheries (CCRF), Report of the Conference of FAO, Twenty-Eighth Session, 20–31 October 1995, Annex 1 to the CCRF (Background to the Origin and Elaboration of the Code).

<sup>189</sup> CCRF (n 179), Article 7.2

<sup>190</sup> Stockholm Convention on Persistent Organic Pollutants (Stockholm, 22 May 2001, in force 17 May 2004)

<sup>191</sup> Committee for Administering the Mechanism for Promoting Implementation and Compliance of the Basel Convention, Guidance Document on Improving National Reporting by Parties to the Basel Convention (September 2009) available at <https://www.unep.org/att/IRC/eCOPIES/Global/364.pdf>

<sup>192</sup> RM Krause, 'Why are we doing this? Issue framing, problem proximity, and cities' rationale for regulating single-use plastics' (2021) 23(4) *Journal of Environmental Policy & Planning* 482–495. p 482-485

### **3.1.2 Cities in the emerging plastic regime and the plastics treaty**

As it was discussed already, Cities have a critical role to play in environmental protection and marine plastic pollution, but often lack a well-defined strategy and plan for addressing these issues. But should they be part of the negotiations and the new plastic treaty?

The goal of the internationally plastics agreement that member states will debate and negotiate is to address the entire plastic life cycle, which involves a wide range of stakeholders. Among these stakeholders, that have significant influence on plastic pollution are the local governments – cities. Cities are responsible for a large amount of plastic waste and many of them have taken some significant voluntary measures to address the issue like ban of single use plastic.

Marine plastic litter represents a significant challenge for coastal cities while coastal cities are also the ones that can more easily collaborate on a local level with individuals and industries and lead to regional policy changes. Cities should be part of the treaty negotiations by providing them a specific observer status. Their insights can be proven valuable in the development of the practices to deal with marine plastic pollution and maybe put cities on the text of the treaty. The Geneva Cities Hub supports the involvement of cities in the tackle of plastic pollution and plastic waste management. According to that Hub cities and local governments should be referred as ‘decision-making entities’ regarding the full life cycle of plastics while the new treaty should also include a specific provision that enables local governments to show their political commitment regardless of their state’s administration.<sup>193</sup>

A proposal regarding coastal cities and marine plastic litter is the establishment of a global forum where coastal cities will be able to exchange information about the management of marine plastic waste and the engagement of the public in eco- plastic free projects. A great example is the ICLEI – Local Governments for Sustainability network, a global network that has managed to gather more than 2500 local and regional governments working on sustainable urban development.<sup>194</sup> The involvement of cities, as key stakeholders, in the emerging plastic regime will enhance their role with more power and responsibilities and give them the opportunity to develop their own policies regarding marine pollution governance.

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<sup>193</sup> Geneva Cities Hun submission for INC – 2, accessed 23 May 2024  
[https://apps1.unep.org/resolutions/uploads/230112\\_geneva\\_cities\\_hub.pdf](https://apps1.unep.org/resolutions/uploads/230112_geneva_cities_hub.pdf)

<sup>194</sup> ICLEI – Local Governments for Sustainability network <https://iclei.org/>

## 3.2 Industries

Another crucial non-state actor that should be mentioned in the new plastics treaty is plastic industry. Distinguishing the plastic industry from public participation in a new plastic treaty is crucial to prevent conflicts of interest and ensure transparency, as industry motivations often differ from environmental goals. The industry interferes with all the three main stages of the plastics' value chain (upstream, midstream and downstream). The raw resources utilized in the upstream stage of plastic manufacture include crude oil, natural gas, biomass, and recyclable materials. Designing, producing, distributing, and using plastic items are all part of the midstream stage. Hazardous chemicals purposefully added microplastics, and avoidable plastic (unnecessary, short-lived, and single-use plastic) are all involved. The downstream stage concentrates on legacy plastic (defined as pre-existing plastic pollution) and end-of-use plastic treatment, which includes collection, sorting, waste management, repair, reuse, and recycling.<sup>195</sup>

The plastics industry has innovated to produce affordable, robust, and adaptable plastics with a wide range of end uses. Though the amount of plastic produced is rising quickly, just 9% of all plastics in the world are currently recycled<sup>196</sup> while about 80% of plastic pollution in the marine environment comes from land-based sources.<sup>197</sup> Plastic industry is dominated by multinational corporations that possess transboundary resources and influence that States cannot match making them crucial players in suggesting and, more significantly, putting into practice solutions to address plastic pollution.<sup>198</sup> Marine plastic pollution besides environmental damages is estimated to have US\$ 13 billion damage its year.<sup>199</sup> Data from 2019 indicates that the leading 20 producers of plastic (polymers) were responsible for 55 percent of the world's plastic waste.<sup>200</sup> Additionally, a brand audit conducted across 51 countries identified the top 10 polluting entities as multinational corporations specializing in fast-moving consumer goods.

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<sup>195</sup> Dreyer, E., Hansen, T., Holmberg, K., Olsen, T., Stripple, J., 2024. Towards a Global Plastics Treaty: Tracing the UN Negotiations. Lund University. Lund, Sweden. p 10

<sup>196</sup> . Geyer R, Jambeck JR, Law KL (2017) Production, use, and fate of all plastics ever made. *Sci Adv* 3(7):1–5, pages 1-2

<sup>197</sup> Andrady A (2011) Microplastics in the marine environment. *Mar Pollut Bull* 62:1596–1605, page 10

<sup>198</sup> Daniel F. Akrofi, Peixuan Shang & Jakub Ciesielczuk, Reconsidering: Approaches towards Facilitating Non-State Actors' Participation in the Global Plastics Regime, 14 *EUR. J. LEGAL STUD.* 121 (2023), p 124

<sup>199</sup> UNEP, *UNEP Year Book 2014: Emerging Issues in Our Global Environment* (2014) United Nations Environment Programme, Nairobi <http://wedocs.unep.org/handle/20.500.11822/9240>

<sup>200</sup> Dominic Charles, Laurent Kimman and Nakul Saran, 'The Plastic Waste Makers Index' (2021) Minderoo Foundation, p. 31.

These corporations are based in the global north and have a network of subsidiaries and affiliates of global retailers worldwide.<sup>201</sup> All these makes it clear that industry plays a crucial role in reducing plastic pollution. But how are industries addressed in the current international law related to marine pollution?

Typically, industry stakeholders engage in developing industry-codes of conduct, which are promoted by their representatives and, in some instances, by business-initiated non-governmental organizations (BINGOs). In both roles, these non-state actors generally do not possess direct decision-making authority.<sup>202</sup> Many of the substantive obligations are imposed by international environmental treaties. Even though they are addressed to Contracting parties, in reality they are depended on non-State actors such as industries to be implemented through the translation into domestic law of the Parties. That is the case in the Basel Convention, MARPOL and the London Convention and Protocol. However, neither the treaty language nor the procedural regulations mention the involvement of pertinent industry actors.<sup>203</sup>

Furthermore, even though UNCLOS does not directly address industry, it has implications for them, particularly those involved in activities such as shipping and fishing. These industries are potential sources of plastic pollution due to operational discharges, accidental losses, and other waste management practices. Besides the obligation coming from Article 194(1) for States to take measures to prevent, reduce, and control pollution of the marine environment from any source and Article 207 that focuses on preventing, reducing, and controlling pollution from land-based sources,<sup>204</sup> that can include activities conducted by maritime industries, moreover these industries are linked to coastal and port states and through that to coastal cities.

Article 211(4) states that ‘Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage.’ That gives coastal states the authority to enact national laws and rules aimed at stopping, reducing,

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<sup>201</sup> BFFP, 'Branded: Identifying the World's Top Corporate Plastic Polluters' (2019) 50. p 15-17

<sup>202</sup> Peter J. Spiro, 'Non-Governmental Organizations and Civil Society', in Daniel Bodansky, Jutta Brunnee and Ellen Hey (eds) *The Oxford Handbook of International Environmental Law* (2007) (Oxford University Press) 781.

<sup>203</sup> Daniel F. Akrofi, Peixuan Shang & Jakub Ciesielczuk, *Reconsidering: Approaches towards Facilitating Non-State Actors' Participation in the Global Plastics Regime*, 14 *EUR. J. LEGAL STUD.* 121 (2023), pages 126-127

<sup>204</sup> UNCLOS Article 194(1) and 207



and managing marine pollution caused by ships operating in their waters.<sup>205</sup> These laws and regulations may refer to shipping industries and may include provisions for managing ship waste to avoid plastic pollution.

It is noteworthy that the existing treaties only address the downstream disposal of plastic wastes, and none of them mention the upstream production of plastics.<sup>206</sup> However, as Dreyer et al point out in their report, from the plastic treaty negotiations and the States' submissions the biggest weight is been given to the midstream and downstream stages while the upstream is rather overlooked.<sup>207</sup> In the State submission the two main positions expressed regarding the best ways to combat plastic pollution are either the preference to treat plastic trash better in order to prevent it from becoming pollution, or it is preferable to reduce the amount of new plastic that is generated.<sup>208</sup> However, the midstream was the most heavily represented value chain segment across all suggested measures.

In order to include plastic industry in the game a system of policies that decrease the incentives for virgin plastics should be promoted. Not all plastic can be recycled or repurposed without some kind of incentive for the plastics industry to cut back on virgin plastic production.<sup>209</sup> That will contribute drastically to an effective circular economy.

Another industry sector equally important is waste management and recycling facilities. To end the plastic loop, a policy of enhancing the management of plastic waste and closely collaborating with other stakeholders should be followed. If we consider how closely interconnected are land-based plastic pollution and marine environment, the plastics industry must work closely with water and waste management authorities to discuss issues and modify waste management and plastic production plans in response.<sup>210</sup>

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<sup>205</sup> Gavouneli, M. (27 Nov. 2007). *Functional Jurisdiction in the Law of the Sea*. Leiden, The Netherlands: Brill | Nijhoff., p. 39-49

<sup>206</sup> Ibid

<sup>207</sup> Dreyer, E., Hansen, T., Holmberg, K., Olsen, T., Stripple, J., 2024. *Towards a Global Plastics Treaty: Tracing the UN Negotiations*. Lund University. Lund, Sweden. p 26

<sup>208</sup> Ibid

<sup>209</sup> Deborah Roy, Emma Berry, Karen Orr & Martin Dempster (2023) *Barriers to recycling plastics from the perspectives of industry stakeholders: a qualitative study*, *Journal of Integrative Environmental Sciences*, 20:1, 2190379, DOI: 10.1080/1943815X.2023.2190379, p. 8-9

<sup>210</sup> Ibid

As Friederike Stock et al discuss in their book, the way plastic litter is treated can be significantly improved by funding and investing in waste management infrastructure.<sup>211</sup> More than 12,7 million metric tons of plastic litter end up in the oceans due to poor waste management.<sup>212</sup> Therefore incentives should be given to waste management industries to improve waste management infrastructures. That also is closely related to coastal States regarding ocean cities and marine plastic litter. Local waste management infrastructure should guarantee on a high level the proper management of plastic waste and make sure less plastic waste is mismanaged and does not end in the ocean. A possible partnership between waste management infrastructures and local governments so the best possible level of plastic management will be assured.<sup>213</sup>

### 3.3 Public participation

The UN plastic pollution treaty's development should involve citizens as key stakeholders to successfully create communities and environments free from plastic waste. Every step of the policy-making process should involve public participation, tools for coordinating and exchanging policy feedback should be given top priority, and equitable access for all parties involved should be guaranteed throughout the negotiation and implementation process. In the existing treaties public participation has the role of public information and awareness. UNCLOS, MARPOL and the London Convention and Protocol do not have specific articles that directly address public participation. Basel convention in Article 10(4) is referring to the need for Parties, *inter alia*, to promote public awareness regarding hazardous waste<sup>214</sup> while the Stockholm Convention states in Article 10 requires parties to promote and facilitate public

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<sup>211</sup> Friederike Stock, Georg Reifferscheid, Nicole Brennholt and Evgeniia Kostianaia  
Series: The Handbook of Environmental Chemistry, Year: 2021, Volume 112, p. 129

<sup>212</sup> Jambeck JR, Geyer R, Wilcox C, Siegler TR, Perryman M, Andrady A, Narayan R Law KL (2015) Plastic waste inputs from land into the ocean, *Science*, 347(6223):768–771. <https://science.sciencemag.org/content/347/6223/768>. Accessed 25 May 2024, page 768

<sup>213</sup> In order to promote waste management, Palafox-Alcantar et al. described a partnership in which many actors, disciplines, goals, and objectives might be held jointly, 2020, 32, 106053. [CrossRef] 58. Palafox-Alcantar, P.G.; Hunt, D.V.L.; Rogers, C.D.F. A Hybrid Methodology to Study Stakeholder Cooperation in Circular Economy Waste Management of Cities. *Energies* 2020, 13, 1845, p. 1-11

<sup>214</sup> Basel Convention, Article 10(4) : ‘Taking into account the needs of developing countries, co-operation between Parties and the competent international organizations is encouraged to promote, inter alia, public awareness..’

awareness, information, and education concerning persistent organic pollutants.<sup>215</sup> However, both of these Conventions do not involve public in decision-making processes.

As Nikoline G. Oturai et al point out in their article, in this treaty the UN has a unique opportunity to involve public (citizens, vulnerable groups, indigenous people) both in the negotiation and implementation process.<sup>216</sup> This public participation can be built on two pylons: Citizen science and Principle 10 of Rio Declaration.

### 3.3.1 Citizen Science

Citizen science involves cocreating and collaborating with citizens to generate scientific knowledge and information and recently has been used to show light in the realization of the SDGs. Even though UN has expressed the view of wanting to have a wide range of stakeholders and guarantee a more effective participation, however, after the UN1 meeting a concern was expressed that not all stakeholders were represented equally, including citizens that were dominated by industry.<sup>217</sup> But how can citizen science and participation strengthen the policies adopted for plastic pollution?

In the last decades communities are showing more interest in what we call ‘environmental justice’ and want to be involved more effectively in the environmental processes<sup>218</sup> while according to Jens Newig et al case analysis, it is obvious that public participation and collaboration in decision making improves environmental governance.<sup>219</sup> Participation can vary depending on the degree of representation , the way the participants interact with each other and how much they can actually shape the decisions taken or if their role has more of a symbolic value.<sup>220</sup> In addressing plastic pollution citizen science is ideally suited for problems as it is suitable for problems that have an impact on public policy as it increases public awareness,

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<sup>215</sup> Stockholm Convention, Article 10

<sup>216</sup> Nikoline G. Oturai, Kristian Syberg, Dilek Fraisl, Asta Hooge, Tiffany M. Ramos, Sven Schade, Steffen Foss Hansen, UN plastic treaty must mind the people: Citizen science can assist citizen involvement in plastic policymaking, *One Earth*, Volume 6, Issue 6, 2023, Pages 715-724, ISSN 2590-3322, p. 715-716

<sup>217</sup> Hub, C. (2022). First global plastics treaty intergovernmental meeting concludes with a mix of high and low points | break free from plastic. <https://www.breakfreefromplastic.org/2022/12/02/first-global-plastic-treaty-intergovernmental-meeting-concludes-with-a-mix-of-high-and-low-points/>.

<sup>218</sup> Kasperowski, D, Berti Suman, A, Chen, S-L and Kullenberg, C. 2023. Where Environmental Citizen Science Meets the Law. *Citizen Science: Theory and Practice*, 8(1): 8, pp. 1–4.

<sup>219</sup> Jens Newig, Nicolas W. Jager, Edward Challies, Elisa Kochskämper, Does stakeholder participation improve environmental governance? Evidence from a meta-analysis of 305 case studies, *Global Environmental Change*, Volume 82, 2023, 102705, ISSN 0959-3780.

<sup>220</sup> Ibid

fosters an open dialogue, involve the public from the outset, and motivate them to actively participate in problem solving.<sup>221</sup>

Social inclusiveness in decision making and later decision practice will add to the motive of public to participate more actively in practices like recycling and ensure acceptance and effectiveness of the adopted measures.<sup>222</sup> When it comes to marine plastic waste the involvement of citizens can have the shape of data gathering and sharing. Examples of such data sharing and consultation bases that can be implemented from the UN regarding marine plastic pollution can be drawn from the EU. The ‘Have your say’ platform allows EU citizens to provide their opinion about possible regulations throughout different stages of policy making.<sup>223</sup> There can be a platform based on this model where, depending on the type of regulation and the coastal area, different stakeholders will be able to participate and share their views. The public should be able to have a say throughout the policy process.

### **3.3.2 Principle 10 of the Rio Declaration**

In the UN resolution about plastics, it was agreed that, *inter alia*, the plastic treaty should consider the Principle 10 of the Rio Declaration on Environment and Development to facilitate meaningful participation in the international plastic treaty procedures and implementation.<sup>224</sup> The use of this Principle can contribute to strengthening the sense of environmental democracy in the treaty.

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<sup>221</sup> 1. Backstrand, K. (2006). Democratizing global environmental governance? Stakeholder democracy after the world summit on sustainable development. *Eur. J. Int. Relat.* 12, 467–498. p 469-471 2. Beyers, J., and Arras, S. (2021). Stakeholder consultations and the legitimacy of regulatory decision-making: a survey experiment in Belgium. *Regul. Gov.* 15, 877–893. p 880-883 and 888-890 3. Nutley, S. (2003). Bridging the policy-research divide. *Can Bull Public Adm* 108, 9–28. [https://www.researchgate.net/publication/237623523\\_Bridging\\_the\\_policy\\_research\\_divide\\_Reflections\\_and\\_Lessons\\_from\\_the\\_UK12](https://www.researchgate.net/publication/237623523_Bridging_the_policy_research_divide_Reflections_and_Lessons_from_the_UK12). p 9-10

<sup>222</sup> Fox, O., and Stoett, P. (2016). Citizen participation in the UN sustainable development goals consultation process: toward global democratic governance? *Glob Gov* 22, 555–573. p 556-559  
People matter, U.N. (2008). *Civic Engagement in Public Governance* (United Nations Department of Economic and Social Affairs), p. 183

<sup>223</sup> Nikoline G. Oturai, Kristian Syberg, Dilek Fraisl, Asta Hooge, Tiffany M. Ramos, Sven Schade, Steffen Foss Hansen, UN plastic treaty must mind the people: Citizen science can assist citizen involvement in plastic policymaking, *One Earth*, Volume 6, Issue 6, 2023, Pages 715-724, ISSN 2590-3322, p. 716-718, 720

<sup>224</sup> United Nations General Assembly, Rio Declaration on Environment and Development, 21st plenary meeting, Rio de Janeiro, 3-14 June 1992, A/CONF.151/26 (Vol. I), (Rio Declaration) (14 June 1992). The Rio Declaration stems from the United Nations Conference on Environment and Development (UNCED).

The Principle 10 of the Rio Declaration states that:

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

As Jan Darpö says in his article, Principle 10 of the Rio Declaration lays down the ‘three pillars of environmental democracy’ which are the right of the public to obtain environmental information, to participate in environmental decision-making procedures and to have access to justice in environmental matters.<sup>225</sup> Principle 10 has not been fully established in any international environmental agreement, while currently, the most advanced tool for environmental democracy is the 1998 Aarhus Convention from UNECE, where according to Article 9 of this Convention, the public has the right to access justice to contest denials of environmental information access, decisions, and failures regarding permits for substantial installations and operations that could significantly affect the environment, as well as other actions that might violate environmental laws.<sup>226</sup> However, the inclusion of Principle 10 will contribute to the inclusion of public participation in the plastic treaty. Following up we will examine each pillar of Principle 10.

### **Access to information**

Environmental information is defined in article 2(3) of Aarhus Convention as ‘any information on the state of elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites, biological diversity and its components....., activities or measures, including administrative measures, environmental agreements, policies, legislation, plans and programs, affecting or likely to affect the elements of the environment...., activities or

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<sup>225</sup> Darpö, Jan, Principle 10 and Access to Justice (April 28, 2017). p. 1-5

<sup>226</sup> Ibid

measures, including administrative measures, environmental agreements, policies, legislation, plans and programs, affecting or likely to affect the elements of the environment..<sup>227</sup>

Article 4 of Aarhus Convention states that such information should be made available to the public by the public authorities regardless of their interest in the issue<sup>228</sup> or their jurisdiction.<sup>229</sup>

This is useful when dealing with a transboundary pollutant like plastic that can emerge far from its originating source. While Article 4 is applicable solely to public authorities, the accompanying Protocol on Pollutant Release and Transfer Registers mandates that industries disclose information to the public. Consequently, a treaty on plastics could aim to impose similar disclosure requirements on major industry participants.<sup>230</sup>

Access to information regarding plastics should consider different relevant types of information. That includes (i) scientific and engineering aspects of plastics covering the entire lifecycle like how they are manufactured, (ii) economic data referring to the transport, trade and the investments in the plastic sector, (iii) data referring to the impacts plastic have in human health or vulnerable populations, (iv) socio-ecological aspects and information assessing the policies and management practices adopted together with breaches by the parties and (v) the information covering the regulation of plastic at all levels.<sup>231</sup> This information should be available in a database regarding plastic that ensures constant information access to the public. The collection and dissemination of environmental information can follow the example of Article 5 of the Aarhus Convention.<sup>232</sup>

### **Participation in environmental decision-making procedures**

One other pillar of Principle 10 is the participation in environmental decision-making. Such participation may occur in several situations, such as judgments involving particular plans, programs, and development proposals, as well as rule-making procedures. Participation in international negotiations must be relevant, unrestricted, transparent and active in order to be effective. The Special Rapporteur on Human Rights and Toxics noted that public participation

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<sup>227</sup> Aarhus Convention (n 25) art 2(3).

<sup>228</sup> Ibid article 4.1(a)

<sup>229</sup> Ibid article 3(9)

<sup>230</sup> Daniel F. Akrofi, Peixuan Shang & Jakub Ciesielczuk, *Reconsidering: Approaches towards Facilitating Non-State Actors' Participation in the Global Plastics Regime*, 14 EUR. J. LEGAL STUD. 121 (2023), p. 130

<sup>231</sup> Ibid

<sup>232</sup> Aarhus Convention article 5

in the decision-making process of the plastic treaty, up until now, is weak and that is something that needs to be taken care of.<sup>233</sup>

Article 3(6-9) of the Aarhus Convention as an example- model can be followed in the upcoming plastic treaty encouraging a meaningful and equitable participation. The inclusion of public – especially vulnerable populations like the indigenous people- both in the negotiations and in various implementation procedures of the agreement will strengthen the effectiveness of the agreement. Non-state actors should participate in an equal way ensuring more inclusive decisions.

Due to their direct role in enforcing the global plastic treaty, the industries that use and produce plastic are crucial to include in its decision-making and implementation. However, the Plastics Treaty process also needs to ensure and promote broad, inclusive, and transparent public participation, including providing funding for equal participation. It is a disturbing reality that in November’s 2023 143 lobbyists from the fossil fuel and chemical industries had registered to attend the third session of the Intergovernmental Negotiating Committee (INC-3), giving them access to the discussions just as they entered a crucial stage and in fact outnumbered the 70 smallest Member States participating.<sup>234</sup> To tackle this imbalance the plastic treaty negotiations should promote the participation of civil society and vulnerable groups like indigenous people which usually don’t have the financial power to take part in the procedures by funding part of the cost of their participation.

### **Access to justice in environmental matters**

Aligned with Principle 10 of the Rio Declaration , which asserts that 'effective access to judicial and administrative proceedings, including redress and remedy, shall be provided,' article 9 of the Aarhus Convention obliges Contracting Parties to guarantee that members of the public who have a 'sufficient interest' or assert 'an impairment of a right where the administrative procedural law of a Party stipulates this as a prerequisite' can access 'a review procedure before a court of law and/or another independent and impartial body established by law.' This is to

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<sup>233</sup> Marcos Orellana, United Nations Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes: The stages of the plastics cycle and their impacts on human rights, 33 and 110.b (2021), <https://bit.ly/3LgIWAt>

<sup>234</sup> Center for International Environmental Law (CIEL), <https://www.ciel.org/news/fossil-fuel-and-chemical-industries-at-inc-3/>

challenge both the substantive and procedural legality of any decision, act, or omission covered under Article 6 of the Convention, and as applicable under national law.<sup>235</sup>

In addition, the Convention in Article 9(3-4) states that ‘without prejudice to the review procedures referred to in paragraphs 1 and 2 above, each Party shall ensure that, where they meet the criteria, if any, laid down in its national law, members of the public have access to administrative or judicial procedures to challenge acts and omissions by private persons and public authorities which contravene provisions of its national law relating to the environment.’ and that all these procedures should be fair , equitable, timely and not prohibitively expensive.<sup>236</sup> Even though Article 9 is referring to the public in the new plastic treaty it can extend to cover also plastic industry.<sup>237</sup> In these provisions adds Article 3(9) of the Convention that was mentioned above and is in line with the transboundary nature of plastic as it give the public the possibility to file a case regarding environmental matters regardless of characteristics like citizenship and nationality.<sup>238</sup>

Even though the results of the implementation of Principle 10 are more obvious on a national level rather than an international, still the fact that this Principle can be included in the plastic treaty can ensure that States and non-state actors like plastic industry can be found accountable in an International level in case of no compliance.<sup>239</sup> That strengthens the feeling of environmental justice to the public by giving the opportunity to turn against a multinational corporation whose actions may be negatively impacting the environment.

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<sup>235</sup> Aarhus article 9(2)

<sup>236</sup> Ibid article 9(3-4)

<sup>237</sup> Daniel F. Akrofi, Peixuan Shang & Jakub Ciesielczuk, Reconsidering: Approaches towards Facilitating Non-State Actors' Participation in the Global Plastics Regime, 14 EUR. J. LEGAL STUD. 121 (2023), p. 137

<sup>238</sup> Ibid

<sup>239</sup> Ibid



## 4 Case study Arctic: How is Arctic demonstrating participative governance?

There is the view that the Arctic is a remote - distant region and for a long time it was considered as 'virgin' region in a way that it was considered as one of the less polluted ones in the world.<sup>240</sup> However, the development of the industry together with the increasing interest in the region from tourism to nature exploitation had as a major consequence the increase of plastic pollution in the area.<sup>241</sup> More specifically, according to Melanie Bergmann et al plastic debris, and especially microplastics and discarded fishing gear, were found even in areas with waste management facilities perceived as adequate.<sup>242</sup> The Arctic was chosen as a case study due to the legal and regulatory framework that addresses plastic pollution in the area and the stakeholders that take part in it. But how do plastics reach the Arctic?

### 4.1 Sources of plastic litter in the Arctic

Even though the Arctic is in general underpopulated yet, it is observed that a high concentration of plastic litter can be found in the area.<sup>243</sup> The transboundary nature of marine debris and plastics is crucial as they can be transported by ocean currents to isolated regions like the Arctic Ocean.

As Melanie et al mention in their article, an important amount of plastic litter originates from the North Atlantic and the North Pacific.<sup>244</sup> The plastic sources can be distinguished between local and distant sources.<sup>245</sup> Local sources of plastic can include maritime activities like exploration, tourism, ship transport and fishing activities. A great amount of ghost fishing gear, constituting a crucial source of plastic litter, has been spotted in areas like Greenland, Norwegian and Barents Seas, Kara Sea and subarctic North Atlantic and North Pacific

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<sup>240</sup> Tatiana Yu. Sorokina, Global Arctic, Chapter 12 'Pollution and Monitoring in the Arctic', p. 229-230

<sup>241</sup> Ibid

<sup>242</sup> Bergmann Melanie, Collard France, Fabres Joan, Gabrielsen Geir W., Provencher Jennifer F., Rochman Chelsea M., Erik van Sebille and Tekman Mine B., "Plastic pollution in the Arctic", Nature Reviews Earth and Environment, May 2022, Vol 3, No 5, pages 323-337, p. 324-325

<sup>243</sup> Ibid

<sup>244</sup> Mu, J. et al. Microplastics abundance and characteristics in surface waters from the Northwest Pacific, the Bering Sea, and the Chukchi Sea. Mar. Pollut. Bull. 143, 58–65 (2019), Kim, S.-K. et al. Importance of seasonal sea ice in the western Arctic ocean to the Arctic and global microplastic budgets. J. Hazard. Mater. 418, 125971 (2021).

<sup>245</sup> Ibid, pages 323-325

oceans.<sup>246</sup> The debris predominantly originates from fishing activities, with items such as strapping bands and fishing nets being notably prevalent. These nets, often discarded deliberately by fishers, are a major source of microplastics in regions like the Barents Sea and southwest Greenland. While some plastic debris may originate from aquaculture, it is challenging to distinguish these sources from those related to fishing.<sup>247</sup>

Another type of plastic waste that can be considered local is the plastic bottles, plastic bags and fibers that are found in the sea that are introduced either by ships or households.<sup>248</sup> The poor waste management that characterizes the facilities in the coastal regions is also a crucial contributor to the plastic concentration in the Arctic.<sup>249</sup> On the other hand, when it comes to distant sources, we are referring to plastic litter that can reach the Arctic through the oceans, the atmosphere or rivers with most of them coming from the Eurasian basin.<sup>250</sup> However, the transportation processes of plastics in the Arctic are mostly unknown due to a lack of measurement data.<sup>251</sup>

## **4.2 Legal and regulatory framework in the Arctic regarding plastic**

According to Berkman and Young the Arctic's environmental governance is complicated since it involves several different implementation systems.<sup>252</sup> In the same way that there is no comprehensive international treaty addressing marine plastic pollution and the international regime is characterized as fragmented there is a parallelism that can be drawn with the legal system addressing marine plastic pollution in the Arctic region. Unlike Antarctica, which is governed by a specific treaty, the Arctic remains vulnerable due to the absence of a comprehensive treaty. This lack of overarching legal framework leaves it without uniform

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<sup>246</sup> Ibid

<sup>247</sup> Ibid

<sup>248</sup> ibid

<sup>249</sup> Jambeck, J. R. et al. Plastic waste inputs from land into the ocean. *Science* 347, 768–770 (2015).

<sup>250</sup> The Arctic according to Holmes et al article (Holmes, L. A., Turner, A. & Thompson, R. C. Adsorption of trace metals to plastic resin pellets in the marine environment. *Environ. Pollut.* 160, 42–48 (2012), receives > 10% of the global river wastewater, Bergmann Melanie, Collard France, Fabres Joan, Gabrielsen Geir W., Provencher Jennifer F., Rochman Chelsea M., Erik van Sebille and Tekman Mine B., "Plastic pollution in the Arctic", page 324. Mountford, A. S. & Morales Maqueda, M. A. Modeling the accumulation and transport of microplastics by sea ice. *J. Geophys. Res.* 126, e2020JC016826 (2021), p. 7-12

<sup>251</sup> Bergmann Melanie, Collard France, Fabres Joan, Gabrielsen Geir W., Provencher Jennifer F., Rochman Chelsea M., Erik van Sebille and Tekman Mine B., "Plastic pollution in the Arctic", *Nature Reviews Earth and Environment*, May 2022, Vol 3, No 5, p. 323-337

<sup>252</sup> Berkman, P.A., Young, O.R., 2009. Governance and environmental change in the Arctic Ocean. *Science* 324 (5925), 339–340. Carroll, A.B., 1991.

governance and consistent environmental protections. Currently, several treaties, such as the United Nations Convention on the Law of the Sea (UNCLOS),<sup>253</sup> the International Convention for the Prevention of Pollution from Ships (MARPOL), the Basel Convention, the Stockholm Convention and various other bilateral and multilateral agreements govern certain aspects of activity in the Arctic.<sup>254</sup> However, not every Arctic state is part of the same international and regional agreements. In this section I will first give an overview of some of the regional agreements and instruments covering the Arctic and their relation regarding plastic pollution in the area and second, I will analyze how indigenous people as part of public participation are addressed in the Arctic governance.

International framework	Canada	Faroe Islands	Greenland	Finland	Iceland	Norway	Russia	Sweden	US
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention) and its 1996 Protocol (London Protocol)	X	X	X	X	X	X	X	X	X
International Convention for the Prevention of Pollution from Ships (MARPOL)	X	AM	X	X	X	X	X	X	X
Helsinki Commission (HELCOM)	—	—	—	X	—	—	X	X	—
Global Convention on the Conservation of Migratory Species of Wild Animals (Bonn/CMS)	—	X	X	X	—	X	—	X	—
United Nations Convention of the Law of the Sea (UNCLOS)	X	X	X	X	X	X	X	X	—
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention)	X	X	X	X	X	X	X	X	—
Convention on Biological Diversity (CBD)	X	X	X	X	X	X	X	X	X <sup>a</sup>
The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)	—	X	X	X	X	X	—	X	—
United Nations Fish Stocks Agreement (UNFSA)	X	X	X	X	X	X	X	X	X
Honolulu Strategy	X	—	—	X	X	X	X	X	X
The 2030 Agenda for Sustainable Development— Sustainable Development Goals (SDGs)	X	—	—	X	X	X	X	X	X
Food and Agriculture Organization of the United Nations (FAO) Voluntary Guidelines on the Marking of Fishing Gear	X	AM	—	X	X	X	X	X	X
International Maritime Organization (IMO) Action Plan to Address Marine Plastic Litter from Ships	X	AM	X	X	X	X	X	X	X

This table is a list of Arctic countries that have signed international policy frameworks to reduce marine plastic pollution.

Note: AM, Associate Member.

<sup>253</sup> Iceland, Finland, Norway, Russia and Sweden are parties to UNCLOS. However, Canada, the United States and Denmark have not yet ratified the Convention though they have signed it. Because UNCLOS reflects customary international law, the majority of Arctic governments usually comply by its requirements.

<sup>254</sup> Lennon, Erika. “A Tale of Two Poles: A Comparative Look at the Legal Regimes in the Arctic and the Antarctic.” Sustainable Development Law and Policy, Spring 2008, 32-36, 65-66, p. 33

aNonratified.<sup>255</sup>

#### **4.2.1 North-East Atlantic Fisheries Commission NEAFC**

The Commission was created by the North-East Atlantic Fisheries Convention of January 24, 1959, in accordance with Article 118 of UNCLOS, to encourage State cooperation in the conservation and management of living marine resources in the high seas.<sup>256</sup> The North-East Atlantic Fisheries Commission (NEAFC), which has been in operation since 1980, is the Regional Fisheries Management Organization (RFMO) for the North East Atlantic, one of the world's most productive fishing regions and covers the region that extends south to Portugal, east to the Barents Sea, and south to the southern tip of Greenland.

The Agreement on Port State Measures to prevent, deter and eliminate illegal, unreported and unregulated fishing (PSM) on Article 1(i) includes a definition for RFMOs stating that an RFMO is 'an intergovernmental fisheries organization that has the competence to establish conservation and management measures'.<sup>257</sup> In other words, it adopts binding conservation and management measures for its parties to achieve optimum utilization of the fishery resources for which it is responsible<sup>258</sup> while the UN Fish stocks agreement in Article 10 describes the functions of an RFMO.<sup>259</sup> The NEAFC is the body established by the NEAFC Convention with the objective of management and conservation of fishery resources in the regulatory area. The decisions taken by NEAFC are binding for its contracting parties. Regarding its relation with the Arctic Ocean, NEAFC area of competence covers those parts of the Arctic Ocean and their dependent seas which lie north of 36° north latitude.<sup>260</sup>

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<sup>255</sup> This table is taken from Linnebjerg JF, Baak JE, Barry T, Gavrilov MV, Mallory ML, Merkel FR, Price C, Strand J, Walker TR, and Provencher JF. 2021. Review of plastic pollution policies of Arctic countries in relation to seabirds. *FACETS* 6: 1–25., p. 5

<sup>256</sup> North-East Atlantic Fisheries Commission - Regional Fishery Bodies (RFB), <https://www.fao.org/fishery/en/organization/rfb/neaftc?lang=en> Assessed June 2024

<sup>257</sup> PSM, Article 1(i)

<sup>258</sup> Ibid

<sup>259</sup> Article 10, OSPAR Convention. Molenaar, E.J. (2020). Regional Fisheries Management Organizations. In: Ribeiro, M., Loureiro Bastos, F., Henriksen, T. (eds) *Global Challenges and the Law of the Sea*. Springer, Cham. [https://doi.org/10.1007/978-3-030-42671-2\\_5](https://doi.org/10.1007/978-3-030-42671-2_5), p.89

<sup>260</sup> FAO Fisheries & Aquaculture - Regional Fishery Bodies Summary Descriptions - North-East Atlantic Fisheries Commission (NEAFC)

NEAFC's approach to combating marine litter primarily involves establishing regulations that first limit the use of specific types of fishing gear and secondly, mandate the marking and retrieval of such gear. NEAFC specifically targets the problem of abandoned, lost, or otherwise discarded fishing gear (ALDFG). This focus aligns with NEAFC's legal authority, which pertains to the management of fisheries and related activities. More specifically, according to Recommendation 3:2006 It is forbidden for vessels functioning inside the NEAFC Regulatory Area to set up gillnets, entangling nets, or trammel nets at any location where the recorded depth exceeds 200 meters.<sup>261</sup> Moreover, in Chapter II of the NEAFC Scheme of Control and Enforcement NEAFC includes also legally binding requirements related to fishing gear like for example the requirement for all fishing gear to be marked to ensure that it can be traced back to the vessel that deployed it.<sup>262</sup>

#### **4.2.2 OSPAR Convention and plastic pollution**

The Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') was adopted in Paris on 22 September 1992 and is a framework convention whose purpose is to establish a regional instrument for the environmental protection of the North – East Atlantic. It is applicable to the internal waters of each party of the convention, the territorial seas, the EEZ, the exclusive fisheries zones, the high seas and the seabed.<sup>263</sup> One of the five regions that the OSPAR Convention covers is the Arctic waters however not all Arctic states are part of the Convention.<sup>264</sup>

The contracting parties of the convention form the OSPAR Commission that is responsible for the monitoring and implementation of the Convention's decisions. The decisions are legally binding for the contracting parties of the Convention however there is no enforcement mechanism.<sup>265</sup> OSPAR has the responsibility to review the marine environment of the area that it covers, and the measures taken by the parties for the prevention of the pollution of the marine environment.<sup>266</sup> The decisions taken can apply, if decided by the parties, to only one specific area/part of the maritime area it covers.<sup>267</sup> The Convention also promoted the establishment of

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<sup>261</sup> Recommendation 3:2006

<sup>262</sup> Chapter II of the NEAFC Scheme of Control and Enforcement (<http://www.neafc.org/mcs/scheme>)

<sup>263</sup> Article 1(a), OSPAR Convention.

<sup>264</sup> Available at <http://www.ospar.org/documents?d=34012>.

<sup>265</sup> Article 10(2); Article 13, OSPAR Convention

<sup>266</sup> Article 10(2), OSPAR Convention.

<sup>267</sup> Article 24, OSPAR Convention

a network of marine protected areas, four of which are in the Arctic (OSPAR Commission 2007). Moreover, Annexes I, II and III of the Convention are referring to the prevention and elimination of pollution from land-based sources (Annex I) the prevention and elimination of pollution by dumping or incineration (Annex II) and the prevention and elimination of pollution from offshore sources (Annex III).

The Parties of the Convention according to Article 2(1)(a) are obliged to ‘take all possible steps to prevent and eliminate pollution’ and to protect the North-East Atlantic against the ‘adverse effects of human activities’. Contracting parties should cooperate with each other in order to prevent pollution from the above-mentioned sources and exchange information on the environmental situation of their maritime area. These obligations are in line with the relevant obligation of Part XII of UNCLOS of article 192 and 194 and the general obligation for the States to protect the marine environment that were analyzed in a previous chapter.

Over the years OSPAR Convention has collaborated with other Conventions and stakeholders in order to take measures to reduce plastic pollution in the OSPAR regions like the collaboration between OSPAR and Cartagena Convention that covered the topic of waste management and ban of single use plastics, however, this workshop is not binding.<sup>268</sup> In 2015 OSPAR entered into a dialogue Cosmetics and Plastic industries with the goal to voluntarily phase out the use of microplastics like microbeads in personal care products. That led to a 97% reduction in use of plastic microbeads in Europe.<sup>269</sup> Moreover, in 2014 the Convention presented the Regional Action Plan for Prevention and Management of Marine Litter in the North-East Atlantic (Marine Litter RAP) that outlines the many steps OSPAR will take to spread the word about its accomplishments and provides the communication backdrop for the organization's efforts on marine litter. To succeed in this goal the Marine Litter RAP will engage in discussions with various stakeholders like the plastic industry and local authorities.<sup>270</sup>

Regarding participation in the OSPAR Convention, article 11 states that ‘the Commission can decide to admit as an observer : a) any State which is not a Contracting Party to the Convention; (b) any international governmental or any non-governmental organization the activities of

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<sup>268</sup> UN Environmental program, November 2018, <https://www.unep.org/cep/editorial/collaboration-between-ospar-commission-and-cartagena-convention-harmonize-marine-litter>

<sup>269</sup> Action 47: Industry phase out of microplastics in cosmetics

<sup>270</sup> OSPAR Commission, Action for Marine Litter, <https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan>

which are related to the Convention.’, however these observers can participate in the meetings for example by reports that they present to the Commission but they don’t have the right to vote. Moreover, article 9 of the Convention refers to access to information stating that the Contracting Parties shall ensure that any natural or legal person, without having to prove an interest, have access to information about the maritime area of the convention.<sup>271</sup>

### **4.2.3 Arctic council**

The Arctic Council, constituted by the eight Arctic states (Canada, the Russian Federation, the United States, Iceland, Sweden, Finland, Denmark and Norway), is the primary intergovernmental instrument for discussion and policy development regarding environmental issues in the Arctic.<sup>272</sup> In 1991 the Arctic Environmental Protection Strategy (AEPS) came into being with the aim to protect the Arctic environment and its ecosystems, including human, and primarily focused on pollution issues.<sup>273</sup> To achieve its objectives, under the AEPS several working groups, that have since been incorporated into the Arctic Council, have been established.<sup>274</sup> The Arctic council, through its six working groups (Sustainable Development Working Group (SDWG), Protection of the Arctic Marine Environment (PAME), Arctic Monitoring and Assessment Program (AMAP), Arctic Contaminants Action Program (ACAP), Conservation of Arctic Flora and Fauna (CAFF) and Emergency Prevention Preparedness and Response (EPPR)) addresses the environmental issues that affect the Arctic region by implementing the international environmental law principle like the precautionary approach, the ecosystem-based management approach and the environmental impact assessment.<sup>275</sup>

The Arctic council, however, has an advisory role rather than regulatory and no implementation and enforcement ability, giving States the main role when it comes to the development and implementation of the initiatives concerning the environment and how these can take place at

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<sup>271</sup> OSPAR, article 9(1,2)

<sup>272</sup> Robin Warner, Chapter 16, Principles of environmental protection at the Poles, pages 334 – 335, Arctic Council, ‘The Arctic Council: A Backgrounder’ (2018) at <https://arctic-council.org/index.php/en/about-us/working-groups/33-about-us>

<sup>273</sup> Lennon, Erika. “A Tale of Two Poles: A Comparative Look at the Legal Regimes in the Arctic and the Antarctic.” Sustainable Development Law and Policy, Spring 2008, 32-36, 65-66, p. 33-34

<sup>274</sup> Ibid

<sup>275</sup> Robin Warner, Chapter 16, Principles of environmental protection at the Poles, pages 334 – 335, Arctic Council, ‘The Arctic Council: A Backgrounder’ (2018) at <https://arctic-council.org/index.php/en/about-us/working-groups/33-about-us>

a national level.<sup>276</sup> The Arctic council's six working groups are monitoring the Arctic in various ways and the results from this monitoring are also used by other international instruments and participants like the Stockholm Convention on POPs.<sup>277</sup> PAME is currently in charge of the Arctic Ocean Review (AOR) project, which aims to evaluate the state of Arctic maritime governance and identify trends and recommendations.<sup>278</sup> Pame in 2019 released the first 'Plastic in a bottle' program that has as a goal the collection of data regarding the way plastic bottles travel to the Arctic region.<sup>279</sup> The effectiveness of this monitoring and project management has been proven while the data that are gathered help in the scientific research in the area.<sup>280</sup> Over the years the Arctic council has produced a number of important environmental initiatives regarding the protection of the arctic marine environment with some of them dealing with the pollution concerning the region and constituting a great example of inclusive governance with the promotion of cooperation between States and other stakeholders like indigenous people.

### **4.3 Indigenous participation in the Arctic governance as part of public participation**

There is no doubt that the participation of minority groups like indigenous people in the environmental governance enriches the idea of strong and comprehensive decision-making by giving voice to the local communities.<sup>281</sup> Regarding plastic pollution Greenpeace campaigner Juressa Lee points out that "Communities living mindfully with our environment contribute to the plastics crisis the very least but are experiencing the worst effects of the plastic crisis, as well as the climate crisis. Their worldviews and lived experiences are necessary in understanding the true scale of the problem and finding solutions.....Many states acknowledged the necessity of indigenous participation in the negotiations. However, there needs to be more emphasis on removing barriers to allow participation by indigenous peoples."

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<sup>276</sup> Ibid

<sup>277</sup> Tatiana Yu. Soronika, Chapter 12, Pollution and Monitoring in the Arctic, p. 239-241

<sup>278</sup> Susanah Stoessel, Elizabeth Tedsen, Sandra Cavalieri, and Arne Riedel, Chapter 3, Environmental Governance in the Marine Arctic, E. Tedsen et al. (eds.), Arctic Marine Governance, DOI: 10.1007/978-3-642-38595-7\_3, Springer-Verlag Berlin Heidelberg 2014, p. 56

<sup>279</sup> Pame releases first 'Plastic in a bottle', September 2019, [HTTPS://ARCTIC-COUNCIL.ORG/NEWS/PAME-RELEASES-FIRST-PLASTIC-IN-A-BOTTLE/](https://arctic-council.org/news/pame-releases-first-plastic-in-a-bottle/), ACCESSED JUNE 2024

<sup>280</sup> Ibid

<sup>281</sup> M. P. Poto and L. Fornabaio. "Participation as the Essence of Good Governance: Some General Reflections and a Case Study on the Arctic Council", Arctic Review on Law and Politics, Vol. 8, 2017, pp. 139–159. <http://dx.doi.org/10.23865/arctic.v8.714>, p. 148-150



<sup>282</sup> Indigenous communities have very limited power to avoid or control waste, but are compelled to live with it.<sup>283</sup> The recognition of the importance of traditional ecological knowledge stems from the understanding that indigenous populations, who rely heavily on natural resources for their survival, are disproportionately affected by environmental crisis like plastic pollution despite their minimal contribution to its causes. The fundamental principle that should apply to indigenous people is that individuals whose livelihoods are deeply dependent on environmental management should be involved in the decision-making processes that affect them.

According to the research conducted by Max Liboiron and Riley Cotter, as part of a wider trend in Indigenous-led environmental management, there are growing calls for Indigenous involvement in the governance of plastic pollution.<sup>284</sup> Indigenous people participation in the processes and results, according to the article, indicates the level of indigenous environmental justice that exist into a framework.<sup>285</sup> The Arctic Council points out the importance of non-state actors' participation in the Arctic environmental governance and especially indigenous people by including them as permanent participants and observers.<sup>286</sup> According to Article 2 of the Ottawa Declaration: The category of Permanent Participation is created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council'. This involvement of indigenous people is a unique feature in the Arctic Council and has allowed them to play major role in decision making, as is the case of the approval of the

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<sup>282</sup> Juressa Lee, Indigenous participation crucial in Global Plastics Treaty negotiations – Greenpeace, December 2022, <https://www.greenpeace.org/aotearoa/story/indigenous-participation-crucial-in-global-plastics-treaty-negotiations-greenpeace/>

<sup>283</sup> Vladislava Vladimirova, 'Indigenous People Living with Waste and Pollution in the Arctic', CBEES, State of the region report, Ecological Concerns in Transition A Comparative Study on Responses to Waste and Environmental Destruction in the Region, 2022/2023, (2023), ISBN 978-91-85139-14-9, p. 48-49, 56

<sup>284</sup> Liboiron M and Cotter R (2023). Review of participation of Indigenous peoples in plastics pollution governance. Cambridge Prisms: Plastics, 1, e16, 1–16, p. 7-8

<sup>285</sup> Ibid

<sup>286</sup> Denmark, Canada, Finland, Iceland, Norway, and the Russian Federation United States and Sweden: Joint Declaration and Protocol on the Creation of the Arctic Council, 35 I.L.M. 1386, 1386 (1996), with an Introduction by Andrew Jenks. Aleut International Association, Arctic Athabaskan Council, Gwich'in Council International, Inuit Circumpolar Council, Association of Indigenous Peoples of North (RAIPON), and Saami Council in Arctic Council "Permanent Participants" are the six indigenous organizations that currently hold permanent participant status. Non-Arctic states, intergovernmental and interparliamentary organizations, and non-governmental organizations (NGOs) are all eligible to apply for observer participation in the Arctic Council, Andrew Jenks, An Introductory Note, cit. supra, note 62

Arctic Search and Rescue Agreement (2011), followed by the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (2013), two binding instruments negotiated aegis of the Arctic Council and where Indigenous people had an active role in decision-making.<sup>287</sup>

More specifically, regarding indigenous populations, up until now these participants have been recognized as permanent : (1) the Association of Indigenous Minorities of the North, Siberia and the Far East of the Russian Federation, (2) the Inuit Circumpolar Conference,(3) the Saami Council, (4) the Aleutian International Association, (5) the Gwich'in Council International and (6) the Arctic Athabaskan Council.<sup>288</sup> However, these participants are not formal members of the Council and cannot vote but they have the right to participate in the meetings, present their proposals, raise issues and add them to the agenda.<sup>289</sup> The Arctic Council is a great example of an instrument where non – state actor participation like the minority group of indigenous people can be seen in policy making and can inspire their inclusion in other intergovernmental organizations and agreements. The plastic treaty can use this example as a base with the goal to move even forward and succeed an effective ‘all level’ representation in engaging in decision-making in plastic governance.

#### **4.4 Plastic pollution policy in the Arctic States**

##### **European Arctic**

EU has adopted a number of policies addressing plastic pollution that focus on marine debris like the EC SWD 2012 Commission document related to marine litter<sup>290</sup> and other initiatives like the September 2019 commitment where more than 100 EU companies and organizations agreed on using 10 million tons of recycled plastic in their new products and the European

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<sup>287</sup> Poto, Margherita, (2016), ‘Participatory rights of indigenous peoples: The virtuous example of the Arctic region’, 28, *Environmental Law and Management*, p 88

<sup>288</sup> Linda Nowlan (2001). *Arctic Legal Regime for Environmental Protection*. IUCN, Gland, Switzerland and Cambridge, UK and ICEL, Bonn, Germany. xii + 7, p. 10

<sup>289</sup> Declaration on the Establishment of the Arctic Council (1996), available on the Arctic Council website at: <http://www.arctic-council.org/>.

<sup>290</sup> EC SWD. 2012. Commission staff working document: overview of EU policies, legislation and initiatives related to marine litter. EC SWD 365 final 31.10.2012.

Strategy for Plastics in a Circular Economy.<sup>291</sup> Greenland on the other hand became part of various agreements addressing the minimization of plastic pollution in the marine environment.<sup>292</sup> Iceland even though is not part of the EU, is member of the EEA and as a result has adopted and implemented a series of EU regulations related to waste management while also developed national policies as the Act No. 57/1996 that prohibits the abandonment of fishing gear lost at sea.<sup>293</sup> Norway, also not an EU member but EEA member has together with their own policies and monitoring marine debris programs followed the policies developed by the EU.

### **North America Arctic (Canada) and United States (Alaska)**

Canada has more than ten federal acts that address marine debris and enable the adoption of regulations and guidelines to mitigate marine pollution.<sup>294</sup> The US is focused more on waste management strategies and practices while Alaska, the only US arctic state, has a legislation that bans plastic bags but no legislation focusing specifically on marine plastic pollution.<sup>295</sup> Many of these policies involve a number of stakeholders like industries but most of them do not focus on marine plastic pollution but on plastic pollution in a more general way.

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<sup>291</sup> EC SWD. 2018. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions—a European strategy for plastics in a circular economy. EC SWD 16 final 16.01.2018.

<sup>292</sup> Linnebjerg JF, Baak JE, Barry T, Gavriilo MV, Mallory ML, Merkel FR, Price C, Strand J, Walker TR, and Provencher JF. 2021. Review of plastic pollution policies of Arctic countries in relation to seabirds. FACETS 6: 1–25. doi:10.1139/facets-2020- 0052, p. 5-12

<sup>293</sup> Ibid

<sup>294</sup> Ibid

<sup>295</sup> Ibid

## 5 Conclusion

### 5.1 A way forward - A cooperation multi-level and multi-stakeholder mechanism approach

The issue of plastic pollution represents a complex, transboundary challenge that impacts and involves multiple stakeholders internationally. This thesis advocates for a departure from a purely state-centric approach, proposing instead a multi-level, multi-stakeholder mechanism to effectively address this issue. It specifically examines the roles of three key non-state actors—cities, industries, and public participants—and their potential integration into a plastic regulatory framework. Currently under negotiation, the plastic treaty presents an opportunity to implement a strategy that encompasses these diverse stakeholders through the establishment of an international collaborative body. This body will allow partnerships between these stakeholders on an international but also in a local level. This body will bring together on the same table these non-state actors together with state representatives. This can be a system with many branches. But how can this work? How can these stakeholders work together?

This proposed body aims to facilitate partnerships among stakeholders at both international and local levels, bringing non-state actors and state representatives together to form a cohesive governance system. This system could include a central international committee with various sub-committees organized based on geographical criteria. For instance, coastal cities across different nations but in close proximity could collaborate on shared challenges related to marine plastics. Such collaboration might involve ecosystem assessments, data sharing, and the development of joint management and monitoring strategies. We have seen that happening to a certain extent with ‘the Ocean Cities Network’. Initiated under the UN Decade of Ocean Science it serves as a recent initiative aimed at enhancing the connection between coastal communities and the ocean. It seeks to connect city councils, harbor authorities, research institutions, and other entities to promote local stewardship and bolster the influence of natural sciences.<sup>296</sup>

In these committees, not only cities but also industries involved in plastics and the public would participate. The structure would ensure equal and inclusive participation, preventing any single

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<sup>296</sup> Stöfen-O’Brien, A., Doelle, A. J., & Del Savio, L. (2022). Cities and Sustainable Ocean Governance: A Neglected Link. *The International Journal of Marine and Coastal Law*, 37(4), 634-672. <https://doi.org/10.1163/15718085-bja10102>, pages 665-667

group from dominating the discussions. Each sub-committee would also include several working groups focusing on different aspects of plastic pollution, such as environmental impacts, scientific research, and social implications. The overarching goal of the international committee would be to assist these areas in setting objectives, adopting national legislation, and enhancing policies to strengthen environmental justice in marine plastic governance and monitoring.

## **5.2 Concluding remarks**

The full life cycle of plastic has not yet been addressed by the international community with plastic pollution being characterized by a fragmented legislative landscape. Marine plastic pollution is an international transboundary issue since it can travel long distances through the air and through the oceans and river bodies. The persistent influx of plastics into the oceans reveals the inadequateness of the existing international legal regime.

However, In the last decades the international community decided to address the issue of plastics first with the sustainable goal 14 but more importantly with the decision to negotiate an international plastics treaty that will address the issue in a comprehensive way. That gives the space and the opportunity for new ideas and new stakeholders to take part in the negotiations and implementation of the agreement. Up until now, the traditional concept of international law has been built on a State-centric system with the role of other stakeholders been neglected. The analysis of three key stakeholders that are cities, industry and public participation shows that there is, also, a piece for them on the marine plastic pollution governance pie. Although states are typically the primary recipients of international treaties, this thesis contends that numerous other actors are also necessary for these treaties to be effective. As a result, it calls for increased involvement from non-state actors, such as the public, industries, and cities, in the making and implementation of the global plastic treaty.

More specifically, cities demonstrate an important factor in sustainable ocean governance as most of the world's biggest cities are located in coastal areas and accepting a big part of the pressure coming from plastic pollution in the marine environment. Local governments were shown that are key players to the development of policies that can address the problem and provide sustainable solutions since they are the ones that can more easily communicate and interact in a more immediate way with the other two stakeholders that were analyzed, the plastic industries and the public.

Moreover, the role of industries in the new plastics treaty is undeniably critical. As major contributors to the plastics value chain, their involvement spans from the production of raw materials to the management of plastic waste. The plastics industry, with its significant global influence and capacity for innovation, is pivotal in transitioning towards a more sustainable management of plastics. By integrating robust policies that discourage the use of virgin plastics and enhance recycling efforts, alongside improving waste management systems, the industry can lead a shift towards a sustainable ocean environment. This approach not only addresses the environmental impacts but also aligns with global efforts to reduce marine plastic pollution. Effective collaboration between the plastics industry, waste management sectors, and governmental bodies like cities will be essential to ensure comprehensive and sustainable solutions to the plastic pollution crisis.

The inclusion of public participation in the development and implementation of the UN plastic pollution treaty is not just beneficial but essential for its success. By embracing the principles of environmental democracy, particularly those outlined in Principle 10 of the Rio Declaration, the treaty can ensure that all stakeholders, especially the public, have a meaningful role in shaping a sustainable future free from plastic pollution. This approach will not only enhance the legitimacy and effectiveness of the treaty but also empower communities, foster greater environmental stewardship, and ensure that the voices of the most vulnerable are heard and considered. Ultimately, by integrating public participation at every stage (negotiation and implementation), the treaty can achieve its goals more comprehensively and equitably, leading to stronger environmental governance. The Arctic council is a great example of a more inclusive governance with the inclusion of indigenous people in its processes, but unfortunately does not have a regulatory power.

The final point is that the journey towards a comprehensive international plastics treaty represents a pivotal moment in global environmental governance. By inclusively engaging these relevant stakeholders—cities, industries, and the public—and grounding the process in the principles of environmental democracy, we can forge a treaty that not only addresses the full life cycle of plastics but also sets a new standard for international cooperation and sustainable development. As we move forward, we should remain committed to this inclusive, holistic approach, ensuring that the treaty not only mitigates marine plastic pollution but also embodies the collective responsibility and action required to sustain our planet's health and vitality.

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