CHAPTER 23

Common but Differentiated Responsibilities as a Guiding Principle towards a Potential International Treaty on Plastic

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1 Introduction

Plastics are an enduring representation of our time. They provide convenience in packaging food, cosmetics and any number of other consumables. Most recently and importantly during the Covid-19 pandemic, they have proven to be an effective means of facilitating hygiene standards, thereby ensuring a certain degree of human health protection against the spread and effects of the virus. However, increased plastic consumption has resulted in a significant increase in marine environmental pollution by plastic in the form of marine litter. This type of pollution challenges the architecture of international public law and ocean governance. Whereas developed countries engineer the plastics and export the waste, they are generally not the major source polluting countries. Their contribution to the marine litter pollution load tends to be relatively limited due to the existence of an adequate infrastructure for waste management and recycling.[1] Mismanaged waste mostly makes its way into the ocean from a range of States in Asia and Africa, all of which have in common that they are considered developing countries.[2] Considered in light of pollution from other sources, such as those emitting CO_2 emissions, a dichotomy between high and low emitters is being pursued.[3]

This chapter argues that there may be a need to move away from these approaches in the context of plastic pollution and adopt a more nuanced

1 The Economist Plastics Management Index, October 2021 at https://backtoblueinitiative.com/?utm_source=Referral&utm_medium=SustainabilityProject&utm_campaign=BacktoBlue2021.

2 J.R. Jambeck, R. Geyer et al., 'Plastic waste inputs from land into the ocean', 347 *Science*, 768–771, 2015, p. 771.

3 J. Depledge and F. Yamin 'The global climate change regime: a defence', in: Helm and Hepburn (eds.), *The economics and politics of climate change* (Oxford: Oxford University Press, 2009), pp. 533–453, p. 443.

architecture of burden-sharing. In addition, the legal framework must serve to better distribute responsibility for plastic pollution, taking into account the complex interactions and supply chain of plastics on a global scale. In this regard, the application of the principle of common but differentiated responsibilities (CBDR) may be suitable to guide such (preliminary) discussions, which are currently getting underway regarding a potential new international legally binding instrument on plasticbeing discussed within the framework of the UN Environment Programme.

Admittedly, the complexity of any such regime is complex and cannot be reduced to or solved by the application of a principle. Nonetheless, giving further thought to the operationalisation of CBDR in an effort to foster greater equity in the overall governance approach is of upmost importance. It has the potential to go some way towards addressing the asymmetry in the global governance system pertaining to marine litter, a system characterised by a dearth of effective regulatory instruments on national and regional levels and compounded by partial data availability (particularly in certain parts of the world)[4] as well as aspects of parachuting science, whereby only research is conducted by some few countries (also in third countries) without the involvement of local governments, researchers and/or organisations.[5] CBDR may also serve to guide towards the resolution of conflicts of interests along the prevailing North-South divide in international politics.[6]

2 Marine Litter as a Long-Term and Persistent Environmental and Societal Challenge

Marine litter includes all durable, manufactured or processed persistent materials that enter the marine environment through accidental or intentional introduction. Besides materials such as rubber, metals, fabrics/textiles, glass, wood or paper, plastic is the most frequently found material with a share of > 75%. Plastics have become an expression of our throwaway society – they can

4 United Nations (UN), 'Chapter: 12', *The Second World Ocean Assessment* (*WOA II*), Volume II, ISBN: 978-92-1-1-130422-0 (2021), W. Lau et al., 'Evaluating scenarios toward zero plastic pollution', 369 *Science,* 2020, pp. 1455–1461.

5 A. Stöfen-O`Brien, K.K. Ambrose et al.,'Parachuting science through a regional lens: marine litter research in the Caribbean Small Island Developing States and the challenge of extra-regional research', 174 *Marine Pollution Bulletin*, 2022.

6 P.G. Harris, and J. Symons, 'Norm conflict in climate governance: greenhouse gas accounting and the problem of consumption', 13 *Global Environmental Politics*, No.1, 2013, p. 10.

be easily and quickly industrially produced and processed and are often given away cheaply or even for free (plastic straws, bags etc.). Recent studies estimate that globally between 1.8 % and 4.6 % of the plastic waste produced in 192 States ends up in the oceans, which amounted to somewhere between 4.8 to 12.7 million tons in 2010.[7] The reasons for this are many and variable: poor or inadequate waste management, especially in Southeast Asia and emerging and developing countries; low recycling rates; societal factors contributing to intensive plastic consumption; and, lack of awareness of the consequences of careless disposal of waste in the environment (littering).

In addition to large-particle waste such as plastic bottles or plastic bags, microplastics (plastic particles < 5 mm) are increasingly a matter for concern.[8] So called secondary microplastics are formed by the fragmentation of larger plastic parts and during the use of products (e.g., in the form of synthetic fibers through the washing of textile products, as abrasion from shoe soles and car tires, and the weathering of facade or marine paints). Primary microplastics are deliberately added to products in micronized form (e.g. cosmetic and hygiene products and abrasives) or enter the environment through leakage/accidents.[9] Due to the longevity and very slow decomposition rate of plastics, it may take centuries for the material to be broken down by physical, chemical and biological processes in the oceans.[10] Physical conditions such as wind, waves, and currents can transport and disperse trash in the ocean over long distances from the point of entry. Consequently, plastic is now present in all aquatic habitats, and is distributed throughout the marine food web, even far from populated areas such as uninhabited islands in the polar regions and Arctic ice.

Globally, marine litter comes largely from land-based sources and the remainder from sea-based sources. However, sources vary by geographic location, and the amount and composition of litter are influenced by, for example, urban and industrial areas, ports, shipping lanes, or fishing areas. The remaining inputs consist of municipal waste, which enters the oceans primarily from

7 Jambeck, 2015, p. 768.

8 UN, WOA II, Chapter 12, 2021.

9 N.B. Hartmann et al., 'Are We Speaking the Same Language? Recommendations for a Definition and Categorization Framework for Plastic Debris', 53 *Environmental Science & Technology*, 2019, pp. 1039–1040, p. 1039.

10 D.K.A. Barnes et al., 'Accumulation and Fragmentation of Plastic Debris in Global Environments', 364. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 2012; F. Thevenon et al., 'Plastic Debris in the Ocean: The Characterization of Marine Plastics and their Environmental Impacts' (IUCN 2014) Situation Analysis Report, p. 14.

careless discarding of waste in public spaces through rivers or canals, as well as via industrial or wastewater treatment plants or stormwater discharges along the coasts. Source identification is relevant to derive efficient prevention and reduction measures. Approximately ten percent of the litter entering the seas can be attributed to fishing gear lost or left in the sea. These so-called ghost nets pose a lethal threat for decades to marine mammals, seabirds, and fish. Although most nets sink to the bottom of the sea, they can remain upright and continue to "fish" there for sometimes long periods of time. Other risks include the ingestion and accumulation of chemical substances. Plastics often contain chemical additives and, in addition, small particles are said to have a vector property whereby they adsorb chemical substances (e.g., Persistent Organic Pollutants (POPs)) from the water. By ingesting plastic parts (especially microplastics), it cannot be excluded that these substances accumulate in the food chain. Furthermore, trash can act as a vector for non-native species.

Overall, marine litter is a complex topic characterised by knowledge gaps relating to sources and impacts and an uneven distribution of environmental pressures and externalities of plastic pollution among different countries. It is closely associated with the challenge of wealth distribution and relates, first, to the issue of access to resources, and, second, to burden-sharing and the allocation of responsibilities. Access to resources may include food and a healthy environment, but equally also an inclusive participation of marginalized people and minorities, countries as well as sectors in political decision-making and economic processes.[11] Given the complex sources and impacts, a broad range of stakeholders needs to be included and addressed in any effective regulatory regime. Moreover, establishing an equitable system for the allocation of risks, burdens and responsibilities among States and other actors is of key importance.[12] The long-term nature and persistence of plastic pollution in the marine environment places it at the nexus between distributive justice and equity of social, economic and environmental costs as well as benefits between different countries and generations.[13]

11 M.G.B Lima and J. Gupta, 'The policy context of biofuels: a case of non-governance at the global level?', 13 *Global Environmental Politics* 2, 2013, p. 47.

12 F. Biermann et al., *Earth System Governance: People, Places and the Planet. Science and Implementation Plan of the Earth System Governance Project,* ESG Report (Bonn, IHDP: The Earth System Governance Project, 2009), p. 60.

13 Sarah Burch et al., 'New directions in earth system governance research', 1 *Earth System Governance*, 2019, p. 9.

3 Challenges of the Current Regulatory Framework of Marine Litter

Addressing marine litter is a complex and multifaceted problem and as has been the subject to numerous analyses.[14] From a legal perspective, the current regulatory landscape is flawed in that it permits a fragmentation between different regulatory regimes.[15] This finds its root-cause in the structure of the United Nations Convention on the Law of the Sea (UNCLOS),[16] in particular in the relevant section thereof, namely Part XII UNCLOS.[17] A clear obligation on States Parties to protect and preserve the marine environment is mandated in Article 192 UNCLOS. This duty has been met by partial responses that are sectoral in nature and rely largely on a source-based approach divided among land-based and sea-based pollution. A further factor compounding the inadequacy of many prevailing regimes, is that the introduction of marine plastic pollution is typically a matter of chronic, persistent oftentimes even systemic pollution and is generally not caused by singular events.[18] A number of international instruments, many developed against the backdrop of broader mandates and objectives than plastic pollution, establish rules in respect of this subject matter. Even though marine litter is known to have impacts on the marine environment and biodiversity, its management has for a long time been approached through limited sectoral instruments. The first indication of its potential adverse consequences was acknowledged in the 1960s and the fact that the International Convention for the Prevention of Pollution from Ships (MARPOL)[19] as well as the Convention on the Prevention of Marine Pollution

14 A. Stöfen-O'Brien, *The International and European Legal Regime Regulating Marine Litter in the EU* (Boston/Hamburg: Nomos, 2015); L. Raubenheimer, *Towards an Improved Framework to Prevent Marine Plastic Debris* (Doctor of Philosophy Thesis, Australian National Center for Ocean Resources and Security (ANCORS), University of Wollongong 2016); UN Environment, *Combating Marine Plastic Litter and Microplastics: An Assessment if the Effectiveness of Relevant International Regional and Subregional Governance Strategies and Approaches* (Nairobi, 2017), UNEP/EA.3/INF/5.24–25.

15 UN Environment, *Combating Marine Plastic Litter and Microplastics: An Assessment of the Effectiveness of Relevant International, Regional and Subregional Governance Strategies and Approaches* ((15 February 2018), UNEP/EA.3/INF/5, p. 15).

16 United Nations Convention on the Law of the Sea (UNCLOS) (Montego Bay) of 10 December 1982, in force 14 November 1994; 1833 UNTS 3.

17 Stöfen-O'Brien, 2015, p. 399.

18 Ibid, p. 68.

19 International Convention for the Prevention of Pollution from Ships (Adopted 2 November 1973) 1340 UNTS 184, as amended by the Protocol Relating to the 1973 International Convention for the Prevention of Pollution from Ships (Adopted 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 ('MARPOL Convention').

by Dumping of Waste and Other Matter (London Dumping Convention),[20] adopted in 1978 and 1975 respectively, demonstrate that the world community must have had an understanding of its detrimental impacts. Both agreements adopted measures to prevent plastic entering the marine environment from shipping and dumping through specific Annexes and guidelines.[21] Yet the diverse regimes created only do so within the strict remit of their respective geographical, in the case of regional seas agreements, and material scopes. Considering the material scope, this applies on the one hand to sea-based sources of marine litter, such as MARPOL, addressing waste from shipping, and the London Convention and London Protocol,[22] both of which address dumping. On the other hand, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)[23] on Land-Based solutions also explicitly addresses marine litter as a source of pollution, but is hindered by its mandate as a non-binding soft law instrument.

Since 2011, another regulatory layer of marine litter management was added through the adoption of Regional Action Plans under Regional Seas Conventions. Adopting regional responses, in line with Article 122 of UNCLOS, may prove to be successful in seeking integrated approaches to the issue of marine litter.[24] To date, over 14 regional action plans have been developed, with differing legal natures, scopes and objectives.[25] However, they have been largely modelled on four main pillars: (1) Addressing land-based sources; (2) Addressing sea-based sources; (3) Monitoring and Assessment; and, (4) Awareness and Education. These Regional Actions Plans have proven to be

20 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (Adopted 13 November, entered into force 30 August 1975) 1046 UNTS 120 ('London Convention').

21 See for an in-depth analysis: Stöfen-O'Brien, 2015, p. 125 *et seq*.

22 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (Adopted 7 November 1996, entered into force 24 March 2006) 36 ILM 1 ('London Protocol').

23 Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), Intergovernmental Conference to adopt a Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, 05.12.1995, UNEP (OCA)/LBA/IG.2/7.

24 Admittedly, during the negotiations towards adopting UNCLOS, the issue of semi-enclosed seas was not without controversy. One of the key aspects of that time related to the determination of what constitutes regions which was coined by the political status quo, which was coloured by ideological regionalism, see Alexander, *Ocean Development & International Law* 2 (1974) 151.

25 UN Environment Programme, Global Partnership on Marine Litter, Action Plans, last accessed 19.10.2021.

successful in raising awareness of the issue. In addition, the regional approach has enabled specific regional challenges related to the marine litter issue to be addressed at an effective local level with immediate results visible in some instances.[26] Due to the smaller circle of States Parties, Regional Action Plans may be revised in a more efficient manner than any global instruments and may target specific regional pressures and sources. This is also the case for riverine inputs of marine plastics for which river basin organisations could provide a suitable regulatory framework.[27]

Increasingly, other, non-law of the sea, intergovernmental agreements take up the issue of marine litter and plastic pollution. One of the most prominent examples is undertaken in the framework of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal[28] (Basel Convention) in which framework an amendment to include plastic has been adopted in 2019 and which came into force in January 2021.[29] Beyond the global and regional regulatory approaches, there are also numerous national initiatives and regulations in place. Increasingly, industry establishes (voluntary) initiatives on marine litter and marine litter management addressing plastic along the entire life cycle. Yet, despite the different global and regional instruments in place, a preliminary assessment by the United Nations Environment Programme (UNEP) has outlined that "[n]o global agreement exists to specifically prevent marine plastic litter and microplastics or provide a comprehensive approach to management".[30] It is clear that gaps in the global

26 Stöfen-O'Brien, 2015, p. 382.

27 L. Finska and J. Gjørtz Howden, 'Troubled Waters-Where is the Bridge? Confronting Marine Plastic Pollution from International Watercourses', 27 *Review of European, Comparative and International Environmental Law*, No. 3, 2018; N. Lebreton et al., 'River Plastic Emissions to the World's Oceans', 8 *Nature Communications*, 2017; C. Schmidt et al., 'Export of Plastic Litter by Rivers into the Sea', 51 *Environ. Sci. Technol.* 21, 2017, 12246–12253. Certain rivers have River Basin Organization in place, such as the Rhine or Danube River, which may develop measures to address the pollution of the marine environment through their watershed. However, some of the most affected rivers by plastic pollution in the world are not governed by a river basin organisation. Examples of this are the Amur River, a shared watercourse between China and Russia or the Ganges-Brahmaputra-Meghna a shared watercourse between China, India, Bangladesh and Nepal.

28 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Adopted 22 March 1989, entered into force 5 May 1992) 1673 UNTS 57 (Basel Convention).

29 Basel Convention Plastic Waste Amendments, Conference of the Parties 14, 29 April 10 May 2019 available at: http://www.basel.int/Implementation/Plasticwaste/Amendments/Overview/tabid/8426/Default.aspx.

30 UN Environment, 2018, p. 15.

regulatory landscape exist and that these gaps necessitate a paradigm shift in the way this single pollution may be addressed by the global community.

4 The United Nations Environment Assembly as a Catalyst for Change: Yet Another Treaty of Public International Law?

The increasing concern of an uncomprehensive regulatory regime further weakened by fragmentation and inadequate regulatory enforcement mechanisms[31] (a not uncommon problem in international environmental law) to effectively address marine litter has meant that this subject has begun to be discussed in a number of different fora. The United Nations Environment Assembly (UNEA) under the auspices of UN Environment can be described as a catalyst for change in this regard. UNEA has paved the way for a formal and worldwide intergovernmental movement to attempt to negotiate a new international treaty on plastic. During different sessions of UNEA, key turning points include the establishment of an ad-hoc open-ended expert group (AHEG) on marine litter and plastics in 2018. The AHEG has met four times between 2018 and 2020.[32] During AHEG 1, delegates exchanged views on barriers to combat marine litter and microplastics and considered the work of existing mechanisms addressing this issue. The option of establishing a new global governance structure was also raised. During its fourth meeting in November 2020, AHEG concluded work on a Chair's Summary,[33] which included a non-exhaustive list of recommendations for future action on marine litter and microplastics. The Group reflected on a growing consensus to address plastic pollution in a broader manner, developed a set of recommendations to address the identified gaps, including voluntary measures, and raised the necessity to establish an Intergovernmental Negotiation Committee towards a new global agreement.

UNEA has also passed a number of resolutions to discuss the best ways to address the issue.[34] Whereas in previous years, the idea to pitch an international

31 Stöfen-O'Brien, 2015, p. 320.

32 UNEA Resolution 3/7 established an *Ad Hoc* Expert Group (AHEG) on marine litter and microplastics to identify, *inter alia*: the range of national, regional, and international response options, including actions and innovative approaches and voluntary and legally binding governance strategies and approaches; and environmental, social, and economic costs and benefits of different response options (2018).

33 UNEA, *Report of the Fourth Meeting of the Ad-Hoc Open-Ended Expert Group on Marine Litter and Microplastics Annex 1 Chair's Summary*, 13 November 2020.

34 See for an overview: UNEA 2/11 'Marine Plastic Litter and Microplastics' (23–27 May 2016) UN Doc UNEP/EA.2/Res.11; UNEA Res 3/7 'Marine Litter and Microplastics'

plastic treaty was unsuccessful during the UNEA session, UNEA-5.1., held virtually in February 2021, proved to be of key importance in moving this agenda item forward. It was agreed that a Ministerial Conference on Marine Litter and Plastic should be convened and one took place from 01 to 02 September 2021 in Geneva. The outcomes of this meeting are then to be used to understand the scope and approach for formal discussions on this topic during UNEA-5.2., which is scheduled to take place in spring 2022.

4.1 *Preparatory Workshops and Meetings*

In preparation for the Ministerial Conference on Marine Litter and Plastic Pollution, two preparatory meetings were organized by the co-convenors Ecuador, Germany, Ghana and Vietnam in May and June 2021. The two preparatory meetings were co-chaired respectively by two of the four co-convenors and separated into different workstreams. These were 1) common goal/vision and objectives of a potential global instrument; 2) data, monitoring and reporting; 3) national and regional cooperation, coordination, and implementation; and, 4) financial and technical support. The discussion on a common goal and vision set the scene for what governments (and some other stakeholders) envisioned, broadly framed in terms of an ambitious goal/vision with a broad scope to address the root causes of marine litter and plastic pollution.[35] After the two preparatory meetings, there was a certain agreement among the participants that a message be sent to the Ministerial Conference on Marine Litter and Plastic Pollution requesting the establishment of an Intergovernmental Negotiating Committee on Marine Litter and Plastic Pollution at UNEA-5.2. In framing this recommendation, certain key aspects seemed to stand central in moving this item forward.[36] These relate on the one hand to acknowledging that there are still many knowledge gaps on the sources and (socio-economic) impacts that would need to be identified and quantified. Also, that measures and incentives including economic instruments which likewise extend to different actors, including the business and industry sector, should aim, among others, to internalize environmental costs of plastic pollution. The participants highlighted that there must not be a duplication of already on-going efforts on a global and regional level and within different sectors. Several participants

(4–6 December 2017) UN Doc UNEP/EA.3/Res.7; UNEA Res 4/6 'Marine Plastic Litter and Microplastics' (11–15 March 2019) UN Doc UNEP/EA.4/Res.6; UNEA Res 4/9 'Addressing Single-use Plastic Products Production' (11–15 March 2019) UN Doc UNEP/EA.4/Res.9.

35 Co-Convenors, Preparatory Workshop Outcomes, May and June 2021, document is with the author.

36 Ibid.

highlighted that measures along the entire life cycle of plastic products and alternatives should be considered and that the waste hierarchy should be implemented and reflected in the new legal regime. Some countries strongly emphasised that capacity building and technical and financial assistance must stand central in assisting countries to develop measures to meet the objectives of a new treaty. Although some stakeholders argued differently, there seemed to be a majority in favour of stating as an agreed objective that all plastic pollution and marine litter should be addressed in its totality. This included adopting a risk-based approached for those types of plastic that are considered to present particular risks to the environment and health due to chemical additives, and for products regarded as impossible to collect and manage safely.

4.2 *Ministerial Conference on Marine Litter and Plastic Pollution*

On the 1 and 2 September 2021, the Ministerial Conference on Marine Litter and Plastic Pollution took place.[37] The Ministerial Declaration of this Conference stated that the participating countries affirm to propose at UNEA-5.2 the establishment of an Intergovernmental Negotiating Committee on Marine Litter and Plastic Pollution at UNEA-5.2., with the aim of achieving a new Global Agreement with ambitious goals, wide participation and means of implementation.[38] The Ministerial Declaration highlighted the need to adopt a Global Agreement based on a clear and common vision with ambitious objectives to, among others, eliminate or minimize all negative impacts of plastic throughout its life cycle. This would include the significant reduction and progressive elimination of direct and indirect discharges of plastic into the environment. The primacy of the preventive approach was highlighted by participants throughout the Conference. Delegates also touched on the human health dimension, including particular reference to the disproportionate impacts of pollution on women and children. A draft resolution on an internationally legally binding instrument on plastic pollution intended for adoption at UNEA-5.2 was presented by Peru and Rwanda and co-sponsored by a significant coalition consisting of Costa Rica, Ecuador, the European Union and its Member States, Guinea, Norway, Philippines, Senegal and Switzerland. The resolution requests the Executive Director of UNEP to convene a negotiation committee (NC) under the auspices of UNEA to prepare for an international legally binding instruments commencing in 2022 with the goal of completing it by the sixth session of UNEA in (most likely) 2023. The call in this resolution for the

37 Ministerial Conference on Marine Litter and Plastic Pollution, see at: https://ministerialconferenceonmarinelitter.com/, last accessed 19.10.2021.

38 Ibid., Ministerial Statement, paras. 1, 4 and 5.

completion of the work of the NC within one year is certainly commendable, yet experience from other more recent treaty negotiations, such as the negotiations towards an International Legally Binding Treaty on biodiversity in areas beyond national jurisdiction[39] would seem to indicate that reality may prove otherwise and that intractable negotiations should not be precluded. In particular, the sheer breadth and complexity of questions to be addressed reasonably allow the conclusion that this timeframe is very ambitious in its scope. At the same time, the ambition of certain States Parties is commendable.

The instructions provided by States Parties in the resolution adopted at UNEA-5.2. are particularly instructive and for that reason it is worth reproducing these in their entirety. In the resolution, the NC is invited to consider:

> (a) To specify the objectives of the instrument and establish as necessary targets, definitions, methodologies, formats, and obligations;
> (b) To achieve sustainable production and consumption of plastics, including the uptake of secondary and alternative raw materials;
> (c) To address product design and use, including compounds, additives and harmful substances as well as intentionally added microplastics;
> (d) To promote national action plans to prevent, reduce and remediate plastic pollution, tailored to local and national circumstances and the characteristics of specific sectors, and to support regional and international cooperation and coordination;
> [...]
> (g) To provide scientific and socio-economic assessments and to monitor and report on plastic pollution in the environment;
> [...]
> (i) To specify financial and technical arrangements, as well as technology transfer assistance, to support implementation of the convention;
> (j) To address implementation and compliance issues;
> (k) To promote research and development into innovative solutions, among others.

As may be concluded from this list, the objectives are manifold and indeed transcend across the boundaries of the current regulatory framework. In

39 G. Wright et al., *The long and winding road: negotiating a treaty for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction* (Paris: IDDRI, Studies N°08/18, 82, 2018).

particular, the ambition to address plastic consumption and production, including design and raw material is in particularly important in achieving a comprehensive approach to effectively address plastic pollution. Furthermore, the mandate specifically includes to fill knowledge gaps and to emphasise that financial and technical arrangements need to be specified. However, significant uncertainties still prevail. Some open questions are as to whether what type of marine litter and/or plastic will be included in a new treaty draft and how this may be done in practice. Judging from the current state of readiness and preparedness in many developing countries, some of the intended objectives could rightly be categorised as overly ambitious, particularly when understood against the backdrop of limited countries with regular and harmonized monitoring programmes in place to monitor litter, e.g., beach litter. The lack of socio-economic assessments and knowledge available for developing countries as well as infrastructure relating to recycling, for example, is a further hindrance for which solutions will have to be found. In the following, some considerations how to meaningful incorporate the needs and corresponding obligations for Developing States, Small Island Developing States (SIDS) and Least Developed Countries (LDCS) in such a regime will be analysed while drawing on the burden-sharing principle of common but differentiated responsibilities (CBDR).

5 Dichotomy of Marine Plastic Pollution Management: Polluting Countries vs. Receiving Countries

As outlined by Picard and Barsalou,[40] the development and structure of international law around sovereignty and the right to exploit one´s resources has led to structural disadvantages faced by the global South with regard to plastics. It is argued that the export of a disproportionate amount of waste to certain countries of the global South leads to ecological debts.[41] Picard and Barsalou coined the term as being indicative of an asymmetry of affluence (distribution of wealth) and effluence (pollution and waste).[42] This also applies to legacy pollution which impacts the marine environment and economic sectors in

40 M.H. Picard and O. Barsalou 'Exploring the planetary boundaries' wasteland: international law and the advent of the Molysmocene', in: Duncan, and Kotzé (eds.), *Research Handbook on Law, Governance and Planetary Boundaries*, Cheltenham: Edward Elgar Publishing Ltd, 2019.

41 A. Hornborg and J. Martinez-Alier, 'Ecologically Unequal Exchange and Ecological Debt, 23 *Journal of Political Ecology*, No. 328, 2016.

42 Picard and Barsalou, 2019, p. 207.

many countries of the global South.[43] The transboundary nature of the plastic pollution and the collective responsibility to reduce and prevent the overall pollution load in the marine environment necessitate a meaningful and effective integration of the countries of the global South. Regarding the prevailing dichotomy between polluters and plastic producing countries, it is important to reflect on the principle of CBDR and its role on equity and fairness regarding a new legal regime on plastic pollution. In essence, the objective of the CBDR principle is twofold: first, States are required to take environmental measures (the element of commonality), yet the form and nature of these measures will, in the second element, depend on the States' capacity. Hence, different commitments and obligations apply (the element of differentiation).[44] Two legal consequences primarily follow: A dual standard in favour of developing States exists and developed States are responsible in assisting developing States. It may be seen as an expression of the general principle of equity common to many domestic legal regimes in international law.[45]

This commentary has been strongly emphasised in the deliberations during the preparatory meetings and the Ministerial Conference 2021. In particular, the financial and technical support of developing countries to meet the objectives of the reduction and elimination of direct and indirect discharges of plastic into the marine environment was often stressed and highlighted as a *conditio sine qua non* for a progression of the current plans. Indeed, paragraph 1 of the Ministerial Conference states that the objectives of a Global Agreement must also consider and account for the local and national circumstances as well as specific needs of developing countries, especially SIDS and LDCs.[46] The topic of solidarity among all actors involved was raised several times during the meeting and found its way into the Ministerial Declaration.[47] During the deliberations, the means of implementation was strongly emphasised by a majority of representatives from SIDS and Developing Countries which asked

43 K. K. Ambrose, 'Coordination and harmonization of a marine plastic debris monitoring program for beaches in the Wider Caribbean Region: Identifying strategic pathways forward', *Mar Pollut Bull*. 14, 2021.

44 T. Honkonen, *The common but differentiated responsibility principle in multilateral environmental agreements: regulatory and policy aspects* (New York: Kluwer Law International, 2009).

45 P. Sands et al., *Principles of international environmental law*, 3rd ed. (Cambridge: Cambridge University Press, 2012), p. 233.

46 Ministerial Statement, Ministerial Conference on Marine Litter and Plastic Pollution, 1 and 2 September 2021, https://ministerialconferenceonmarinelitter.com/ENDORSEMENTS/.

47 Ibid.

for concrete and already determined means of implementation. However, some delegations felt that this was too prescriptive at this point of the deliberations and stated strongly that certain means of implementation may not be considered as this point, mainly relating to waste management in countries. The importance of the means of implementation evokes the relevance of the principle of CBDR, which was however not referred to in the Ministerial Declaration. The discussion on means of implementation not only relates to what kind of means are envisioned within a given regime, but also how different countries are differentiated according to their needs and responsibilities. This in particular relates to the engagement and differentiation of responsibilities of developing countries and some even argue that, relating to the climate regime, "[w]ithout a firm, effective and mutually acceptable bedrock definition defining the scope and depth of developing country involvement, any truly global negotiation will almost inevitably fall apart."[48] This certainly also holds true for plastic pollution and marine litter. This is however challenged by the engagement of emerging economies and their role within a system of CBDR. Overall, one needs to address the question what is common and what is different between states and how may it look like? In order to structure the debate, three central conceptual pillars are proposed:

1. *Approach:* How to target which countries and responsible actors?
2. *Differentiation:* How does one achieve to differentiate pollution reduction and prevention responsibilities?
3. *Participation Mechanisms:* How to achieve a universal participation and is that something which is feasible and necessary?

Determining which countries or stakeholders ought to be included in the common responsibilities can be done in manifold ways. Lessons may be learnt from legal scholarship and approaches from other regimes. The CBDR principle has been implemented in different international agreement and has been guiding implementation. Most notably, the United Nations Framework Convention on Climate Change (UNFCCC)[49] applies this in the general principles based on respective capabilities. However, the convention's section on commitments (among others Art. 4) does not refer to CBDR, but to "specific national and regional development priorities, objectives and circumstances," which may seem subject to interpretation.

48 S. Walsh, et al., 'China and India's participation in global climate negotiations', 11 *International Environmental Agreements: Politics, Law and Economics*, No.3, 2011, p. 264.

49 United Nations Framework Convention on Climate Change, New York, 09 May 1992, 1771 UNTS 107 (entered into force 21 March 1994).

The approach to determine responsible actors and sectors has been analysed in-depth in the context of the development of a climate change regime. One of the most accessible ways may be the sectoral-based approach[50] within a given plastic regulatory regime which focuses on specific sectors within the plastic pollution management. These include, *inter alia*, plastic production, shipping, construction, personal care, medical sector, car industry, waste management and so forth. What is more, and this may admittedly be too ambitious in terms of the overall achievable scope of what ostensibly purports to be an international environmental treaty, is also the role of finance and development institutions through which support could be provided by financial means targeted at the sustainable development in these sectors under a given regulatory and integrated regime. Any such determination of responsible actors will almost invariably require a reliance and indeed, in the first instance, the availability of scientifically viable data.[51] This is not currently the case for several aspects of the plastic life cycle and supply chain as well as countries and regions. Before any sectoral policies could be implemented or arguably before an international treaty could be concluded, additional steps must be taken to address the scarcity of reliable information in the form of monitoring and verification processes.[52]

Differentiation has been undertaken in diverse fora, most significantly within the context of the UNFCCC in which a distinction is drawn between Annex I (developed) and Annex II (developing) countries.[53] Such a differentiation regarding plastic pollution may be done by determination of the historical responsibility[54] based, by way of example, on plastic production and consumption, the kind of plastic being produced and exported, vulnerability to the impacts of plastic, a hot spot approach and/or transboundary movement of plastic. Admittedly, these are only very rudimentary considerations and scientific, economic and other factors would need further consideration. These would have to be understood as being dynamic as opposed to static differentiation between Annex I and Annex II countries within the UNFCCC regime

50 A. Sawa, *A sectoral approach as an option for a post-Kyoto framework* (Cambridge, Mass.: Harvard Project on International Climate Agreements Discussion Paper 2008–23, 2008), p. 25.

51 Honkonen, 2009, p. 145.

52 UN, WOA II, Chapter 12, 2021; Lau et al., 2020, p. 1461.

53 Sawa, 2008, p.26.

54 T. Deleuil, 'The common but differentiated responsibilities principle: changes in continuity after the Durban Conference of the Parties', 3 *Review of European Community & International Environmental Law*, No. 21, 2012, p. 272.

with no mechanism to change and adjust as may be required.[55] Differentiation of applicable responsibilities may be achieved through same obligations but different commitments, for example recycling targets. One may draw from the experience of regional differentiation found in the United Nations Convention to Combat Desertification (UNCCD) (Art. 7).[56] An additional layer of differentiation may be achieved by grouping certain countries with differentiated responsibilities. Again, identifying scientific criteria would seem paramount and a benchmarking process ought to be considered. This could draw on production and consumption and/or recycling targets, among others. Comparable examples may be found in Article 4 (3) UNCCD, which stipulates the eligibility for assistance based on affected or non-affected countries. Applied to the plastic pollution, this could also be done by developing sustainability criteria and criteria relating to vulnerability to the impacts of plastic pollution. The means of participation may include financial compensation which may be targeted for a specific objective or action as defined in the material scope of a Convention, technology transfer and the exchange of information through a Clearing-House Mechanism and capacity building.

Overall, the implementation of the CBDR in this regime, be it within a new treaty or new responses, must represent the notion of equity in international law, but should also reflect that the widest possible cooperation among countries and indeed also, indirectly, private actors, is needed to combat the problem of plastic pollution. The dichotomy which exists with regard to a two-tiered grouping of countries may not be feasible for this regime. Indeed, further research and work has to be undertaken along the dissection of responsibilities and fault lines of those actors engineering and owning the property rights of plastic and those who are obliged to clean-up and mitigate the waste either washed ashore or importing the plastic waste.[57]

55 Depledge/Yamin, 2009, p. 441.

56 United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, especially in Africa of 14 October 1994 (*1954 U.N.T.S. 3, UNCCD*). The convention explicitly singles out Africa as a priority region (UNCCD Art. 7) and furthermore entails five regional annexes that specify the "particular conditions" for the regions of I. Africa; II. Asia; III. Latin America and the Caribbean; IV. Northern Mediterranean; and V. Central and Eastern Europe, and spells out regional needs and guidelines for the respective affected country parties.

57 Picard and Barsalou, 2019, p. 209.

6 Conclusion

The principle of CBDR recognizes each States' individual circumstances. Depending on the outcome of negotiations on an international treaty on plastic, there are many options available on the application and operationalisation of the CBDR in this regime. The principle of CBDR may provide an opportunity to reflect on difficult questions relating to the dichotomy and asymmetry between plastic engineering and trading countries and those which are impacted by imported waste and washed ashore from transboundary movement. The interconnectedness and transboundary scale of the problem necessitates that global efforts to address the structural root causes of this type of pollution must also include those countries which do not have the capacity yet to implement effective marine litter reduction and prevention measures. It is argued that within these confines, the focus may not be on end-of-pipe technologies, such as for waste management. Rather, the means of implementation should emphasise measures which support the application of the waste hierarchy, with a preference for prevention and reduction of plastic, followed by recycling and as a last resort, disposal. This could include recyclability improvement, redesign of materials as well as, if necessary, sustainable low-carbon waste/ material management schemes. A new plastic treaty needs to therefore outline concrete and measurable targets and indicators which provide certainty and predictability for developing countries in achieving these by successful mobilization of resources, technology transfer and capacity-building.

Author Addendum

This contribution considers relevant events until October 2021. It does not include any subsequent developments, such as the United Nations Environment Assembly Resolution 5.14 to End Plastic Pollution: towards an internationally legally binding instrument which was adopted in March 2022.