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State Responsibility and Liability as a Panacea to Ocean Plastic Pollution

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Abstract

Each year, the world produces and uses more plastics than the previous year such that in the decade between 2000 and 2021, production of plastics more than doubled. The low price and versatility of application of plastics is often regarded as the reason for the universal acceptance and adoption of this product. These advantages nonetheless come at a cost – the national municipal waste management systems of many States are unable to manage the plastics effectively and efficiently at end of life. The inappropriate disposal and management of municipal waste means that plastics ultimately end up in the ocean where they degrade further, are ingested by ocean species, negatively impact on ocean species, and are ingested by humans when ocean species are consumed. States have the responsibility to properly manage their municipal waste, but it remains unclear if there exists an international environmental law-imposed obligation to protect the ocean from plastic pollution or to mitigate the damages caused to the ocean from plastic litter arising from national boundaries or from abandoned, lost, or otherwise discarded fishing gear (ALDFG). This thesis therefore examined whether this type of obligation exists under international environmental law and to what extent. The principle of state responsibility and liability as an established custom in international law, cases of the ICJ and the international MEAs were analysed to determine whether States have the obligation under international environmental law to protect the ocean from plastic pollution. It was established that there exists in international law, the obligation on States to protect the environment beyond national jurisdiction, however, there exists no express obligation on States to protect the ocean *beyond national jurisdiction* from plastic pollution or to mitigate the damages caused by plastic to the ocean and ocean species. This research further emphasises that one certain way to address the problem of plastic is by imposing on States the burden of protecting and preserving the ocean from plastic litter and ensuring that this is included in definite and certain terms in a new treaty on plastic.

Key words

Ocean Plastic Pollution, Environment, State Responsibility and Liability, Plastic Treaty

Contents

Abbreviations

ALDFG	Abandoned, Lost or otherwise Discarded Fishing Gear
ARSIWA	Articles on the Responsibility of States for Internationally Wrongful Acts
CBD	Convention on Biological Diversity
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COP	Conference of the Parties
DRC	Democratic Republic of Congo
EIA	Environmental Impact Assessment
EU	European Union
ICJ	International Court of Justice
IJC	International Joint Commission
ILC	International Law Commission
IUCN	International Union for Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreement
NGO	Non-Governmental Organisations
PBDE	polybrominated diphenyl ethers
PCIJ	Permanent Court of International Justice
PFAS/PFOS	polyfluorinated alkyl substances
POP	Persistent Organic Pollutants
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

"Not only are plastics polluting our oceans and waterways and killing marine life – it's in all of us and we can't escape consuming plastics."

~ Marco Lambertini, *Director General of WWF International (2014 – 2022)*

1 General Introduction

1.1 Introduction

Over the years, plastics have achieved a ubiquitousness of such dimension that rivals no other man-made resource.[1] In effect, they have become an important part of our everyday lives as humans.[2] Mostly produced from fossil fuels,[3] their production, use, management, disposal and consequently, linkage with climate change has, in recent times, become a cause of concern to the international community.[4] It is estimated that in 2019 alone, approximately 353 metric tons (Mt) of plastic waste was generated, a considerable increase over the past decade.[5] When discarded, plastic waste often ends up in land-fills and waterbodies including the ocean.[6] Plastic waste has often been managed as municipal solid waste,[7] but this form of management has also often proved inadequate with plastic waste inadvertently finding its way into the ocean.[8]

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[1] Porta 2021, 949.

[2] Wange et al. 2020, 1; Nielsen et al. 2020, 1.

[3] Nanda and Berruti 2021, 124.

[4] Xanthos and Walker 2017, 18; Nielsen et al. 2020, 3.

[5] Pilapitiya and Ratnayake 2024, 1.

[6] Stubbins et al. 2021, 51-55.

[7] Ncube et al. 2021, 12.

[8] Isangedighi, David and Obot 2021, 19.

There exists a plethora of international and regional regulations and agreements that address plastic pollution in a piecemeal manner but there currently exists not one treaty that comprehensively and effectively addresses this menace. The quantum of plastics accumulating in the ocean continues unabated in the absence of an existing global treaty to provide a framework to govern and manage this problem. However, with negotiations ongoing, and with a 'Zero Draft text' already released, the conversations around a successful international plastics treaty to effectively manage plastic waste is still at its infancy.

Research has found that a substantial quantity of plastic litter ends up in the ocean. In 2010, for instance, an estimated 12.7 MT of plastic waste found its way into the ocean[9] and in 2016, an "approximately 19-23 million MT of plastic waste entered rivers, lakes and the ocean".[10] These figures are indicative of the upward trajectory of plastic waste entering the ocean. Plastic waste has been found to constitute a threat to ecosystems and in particular, marine ecosystems thereby constituting a threat to the lives of sea birds, mammals and other organisms living there.[11] The transboundary nature of plastic pollution makes it difficult to identify any one specific contributor of plastic litter to the ocean.[12] There is also insufficient data on the relationship between plastic waste in seafood and human diseases or death.[13] However, scientists are of the opinion that due to their hazardous nature, chemicals present in plastics and consequently, in sea animals and mammals when they are consumed, are likely to have an impact on the health of humans.[14]

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[9] Nagtzaam et al. 2023, 15.

[10] Horton et al. 2021, 8.

[11] Rahman et al. 2023, 38.

[12] Subedia and Pandey 2022, 133.

[13] Smith et al. 2018, 382.

[14] Ibid.

Since most plastics in the ocean come from land-based sources, there exists a presupposition that States are ultimately vicariously responsible for the plastic waste that ends up in the ocean.[15] State responsibility and liability for environmental problems is not a new topic under international environmental law regime.[16] This principle has been discussed to a considerable extent in respect of transboundary air pollution but similar claim cannot be made about state responsibility and liability, plastic pollution and the ocean. State responsibility and liability as it relates to ocean plastic pollution is therefore a topic that needs further exploration as questions continue to abound such as: what happens to the current waste in the ocean? whose responsibility is it to clean up the ocean?[17]

1.2 Ocean Plastic Debris as a Pressing Environmental Challenge

In this current century, plastics have been classified as one of the major pollutants of the ocean.[18] Plastics are literally everywhere and due to the economies of scale of their production, they are used in almost every sector of human endeavour, from healthcare to construction, and even textiles.[19] A consequence of this growth is that the management, disposal, and recycling activities of plastics upon disposal, are not able to match up with

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[15] Tanaka 2023, 246.

[16] The principle of state responsibility and liability in international environmental law can be traced as far back to the Trail Smelter Arbitration where it became well-established. See *Trail Smelter Arbitration (United States v. Canada)*, 3 R.I.A.A. 1905 (includes *Convention for Settlement of Difficulties Arising from Operation of Smelter at Trail*, B. C. and the two decisions of the Arbitral Tribunal). Decision of Apr. 16, 1938: (193g) 33 AJIL 182.

[17] Ibid 247.

[18] Vikas and Dwarakish 2015, 386.

[19] Lithner, Larsson, and Dave 2011, 3309.

the rate at which they are being used and ultimately discarded by humans.[20] In essence, it means that substantial quantity of plastic waste end up being discarded into the environment. Consequently, studies have found that when these plastics are discarded into the environment, substantial quantities still find their way to the ocean.[21] But what is the ocean? The ocean, which is the subject matter of this research work, is regarded as "the main or open sea; the high sea; that portion of the sea which does not lie within the body of any country and is not subject to the territorial jurisdiction or control of any country, but is open, free, and common to the use of all nations."[22]

Plastic waste finds its way into the ocean through a myriad of pathways such as wastewater pathways, road runoff and mismanaged waste.[23] Not all waste in the ocean is generated from the ocean or ocean related activities but most are from land-based sources.[24] Ocean related plastic waste are those generated from human activities on the ocean and mostly from discarded fishing gears.[25] Current figures exist indicating an upward trajectory in the quantum of plastics in the ocean. In 2016, an "approximately 19-23 million MT of plastic waste entered rivers, lakes and the ocean"[26] compared to the 2010 figures of an estimated 12.7 MT of plastic wastes which found its way into the ocean.[27] Of this number, there exists

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[20] Vanapalli et al. 2021, 5.

[21] Nagtzaam et al. 2023, 17. See also, Rellán et al 2023, 2.

[22] The Law Dictionary, 'Ocean Definition and Legal Meaning', retrieved from https://thelawdictionary.org/ocean/#:~:text=Definition%20%26%20Citations%3A,Rodgers%2C%20150%20U.%20S.%20249 accessed 4 April 2024.

[23] Watt et al. 2011, 21447.

[24] Ibid.

[25] It is estimated that about 6.4 million tons of fishing gears is lost to the ocean each year. See Wilcox et al. 2014, 198.

[26] Horton et al. 2021, 8.

[27] Nagtzaam et al. 2023, 15.

no current data on the plastics removed or currently being removed from the ocean even though efforts, however miniscule to remove plastic litter from the ocean, are being undertaken by private persons and non-governmental organisations (NGOs).[28] Studies have also been conducted on the effect of the increasing quantum of ocean plastic waste on the ocean's biodiversity and ecosystems. These studies have found a link between the increasing plastic waste pollution and the destruction or alteration of the habitat of ocean organisms albeit, there is still limited information on the impact of plastics pollution on ocean ecosystems.[29] Relationship has been established between plastic pollution and greenhouse gas emissions by reason of the emissions occurring at every stage of the lifecycle of plastics.[30]

Ocean species and organisms are affected when they ingest plastic in the ocean or become entangled in it.[31] Research has found that lost fishing gear for instance, causes the death of many ocean species and organisms when they become entangled in these fishing gears.[32] Alien species and contaminants can also be introduced into a new habitat when they hitchhike on floating plastic debris.[33] On the seafloor, when plastic debris sink, there exists the suspicion that these category of waste can affect the functioning or operation of the ocean sea floor.[34] When ocean organisms that have ingested plastic waste are consumed by humans, there is the risk factor that the chemicals in the consumed plastics have the

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[28] Aljazeera.com, 'Greek NGO leads 'crazy' bid to rid Mediterranean of plastic waste' retrieved from https://www.aljazeera.com/features/2023/6/5/greek-ngo-leads-crazy-bid-to-rid-mediterranean-of-plastic-waste accessed on 28 January 2024.

[29] Isangedighi, David, and Obot 2021, 21.

[30] Shen et al. 2020, 254.

[31] Ibid.

[32] Thomas et al. 2023, 40069. See also Beneli et al. 2020, 1; Adelir-Alves et al 2016, 430-431.

[33] Isangedighi, David, and Obot 2021, 21.

[34] Ibid.

potential of impacting the health of humans.[35] For example, it has been found that microplastics in sea animals can cause intestinal inflammation and other gut problems in humans.[36] Nevertheless, there exits insufficient data on the relationship between plastic waste in seafood and human diseases or death.[37]

The problem of plastic waste in the ocean is further exacerbated by several factors. Over time, after plastics have entered into the ocean, they are acted upon by microbes and broken down by a process called weathering.[38] This process is also known as fragmentation.[39] Thus, macro plastics are broken down into smaller bits known as microplastics and microplastics are further broken down into nano plastics, the chemical composition and risks nevertheless remaining the same but the potential and ease of removal becoming more cumbersome and complex.[40] In addition, the length of time it takes for plastics to decompose is still not known. What is known however, is that the decomposition or degradation of plastics takes a long time.[41] Thus, with new plastic debris entering the ocean unabated, the problem of plastic litter in the ocean continues.

Plastic pollution constitutes a serious threat not only to the ocean but also to the continued survival of humanity. Its effect is multimodal, and it impacts not just the present generation but will also affect future generations if not unresolved. Plastics have the potential to last for hundreds or thousands of years in the ocean impacting not only the lives of ocean species and organisms but also endangering humans that consume marine animals that

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[35] Smith et al. 2018, 382.

[36] Yan et al. 2022, 414–421.

[37] Ibid.

[38] Bajt 2021, 956.

[39] Waymana and Niemann 2021, 201.

[40] Ibid.

[41] Williams and Rangel-Buitrago, 2022, 10.

have ingested plastics. Microplastics have already been found in the blood of humans,[42] an indication that the problem of plastics is likely to be of such magnitude that the world is yet to grasp as studies are still ongoing. Without an urgent intervention in not only terminating the pollution of the ocean by plastic litter, but in also mitigating ocean plastic pollution, the negative impact of the existing plastic in the ocean on humanity may as well last for hundreds, if not thousands of years.

1.3 Aim and Research Questions

There is no doubt a plethora of research on the impact of plastic pollution on the marine environment.[43] There is also growing research on the interlink between state responsibility and marine plastic pollution.[44] These works have been mostly limited to an examination of the duty of States to protect the marine environment from the effects of plastic pollution. This master thesis aims to examine an important principle in international law - state responsibility and liability, but with respect to ocean plastic pollution. It will examine how the principle of state responsibility and liability impacts on the existing challenge of ocean plastic waste.

The scope of the thesis is thereby limited to an examination of this international law principle and how it is important for the protection of the ocean from plastic waste; current Multilateral Environmental Agreements addressing ocean plastic pollution; the responsibility of States to protect and preserve the ocean environment, as well as the role

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[42] Horvatits et al. 2022, 5.

[43] Berry et al. 2023, 208-228. See also Agha et al. 2022, 260-268; Farrelly, Taffel, and Shaw 2021, 25-40.

[44] Schali 2022, 107-377. See also Voigt 2021, 1003-1021; Percival 2020, 43-57; Beckman 205, 137-162; Maljean-Dubois and Mayer 2020, 206-211.

of the International Court of Justice (ICJ) in establishing environmental obligations pursuant to the principle of state responsibility and liability. The aim of the thesis is to contribute to and build on the existing conversations on ocean plastic pollution by focusing on the role that States must play, in not only preventing further pollution of the ocean but also, in restoring the ocean environment to its original state free from plastic waste. This research work will contribute to existing knowledge by arguing that the principle of state responsibility and liability can also be applied to the mitigation of ocean plastic pollution.

Thus, this thesis aims to answer one main question: whether and to what extent do States have a responsibility under current international environmental law to protect the ocean from plastic pollution? To be able to answer the main question, three sub-questions are also posed and addressed. The first sub- question is: whether and to what extent States have a duty under the current international environmental law not to cause plastic pollution to the ocean. The second sub- question is whether and to what extent States have a responsibility under the current international environmental law to mitigate the damages caused to the ocean by plastic waste. Sub- questions 2 and 3 will be answered in Chapters 2 and 3. Chapter 4 will answer the third sub- question of whether and to what extent the principle of state responsibility and liability is an effective tool in mitigating the damages caused to the ocean by plastics pollution. Chapter 5 will contain an overall analysis of the research work as well as recommendations and Chapter 6 will contain concluding thoughts.

1.4 Methodology

For the purpose of answering the research questions posed in this research work, qualitative research method and doctrinal research methodology. Distinguishing between 'method' and 'methodology' in research is sometimes needed for the sake of clarification. Method is the 'range of techniques' used by a researcher to acquire evidence about the subject of research while the methodology is concerned with the entire 'research

strategy'.[45] Qualitative and quantitative research methods both explore the who, what, where, when , why and how of a research question in different ways but the difference lies in the fact that quantitative research makes use of mathematical predictions while qualitative research methods generally does not.[46]

There are different methodologies that can be utilised by a researcher using a qualitative method. The doctrinal methodology is one of such methods. Doctrinal research has been explained as "a detailed and highly technical commentary upon, and the systematic exposition of, the context of legal doctrine".[47] It is the research used to "identify, analyse and synthesise the content of the law".[48] Doctrinal research involves two processes. First, it involves locating the sources of the law as well as the interpretation and analysis of the text of the law. Second, it involves undertaking what is termed 'legal reasoning' during the research.[49] This research, in focusing on the application of a legal principle to a social problem adopts the doctrinal research methodology. The research first locates sources of international environmental law governing the ocean from pollution, interprets and analyses the text of these laws before embarking on a journey of legal reasoning. The aim is to be able to answer the research questions using critical legal reasoning.

The research project will utilise data and information obtained from journals, books and legal databases. Articles, publications, and situational reports of non-governmental organisations such as reports by the United Nations Environment Programme (UNEP), International Union for Conservation of Nature and Natural Resources (IUCN), International Bank for Reconstruction and Development (World Bank) as well as decisions of the

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[45] Henn, Weinstein and Foard 2006, 10.

[46] Ibid. 4.

[47] Salter and Mason 2007, 31.

[48] Hutchinson 2017, 13.

[49] Hutchinson and Duncan 2012, 111.

International Court of Justice (ICJ) will also be analysed. Due to constraint of time and financial resources, no questionnaire will be designed by the researcher and the researcher will rely on the facts and figures contained in books, articles, journals, publications, internet materials which will serve as means of sourcing for this thesis. This is because there exists a wealth of information from research already conducted on marine plastic pollution and this research work will only build on the existing knowledge.

1.5 Limitations

The research has limitations. First, plastic pollution presents a wide area of research. Due to the constraint of space and time, it is only apt that a sub-section of the plastic pollution problem is selected as a topic of study. Thus, to limit the scope of the thesis, ocean plastic pollution is discussed to the exception of other types of plastic pollution including marine plastic pollution. The marine environment is often defined as including the ocean, but the ocean has a narrower meaning. Nonetheless, the ocean is the focus of this research and both terms will be sometimes used interchangeably.

Also, unlike the subject of climate change in which the concept of state responsibility and liability has been discussed and analysed to a considerable extent by academics and scholars,[50] the subject on who is responsible for the pollution of the ocean by plastic as well as the question of who is responsible for the mitigation of the damages caused by plastic pollution to the ocean is not a subject that has been exhaustively discussed.

Plastic waste is often classified alongside municipal waste. Municipal waste management falls within national boundaries and is regulated by national laws and regulations.

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[50] Tsang 2021, 1. See also, Reichwein et al. 2015, 142-181; Tol and Verheyen 2004, 1109-1130; Voigt 2021, 1003-1021.

Moreover, most of the plastic waste that ends up in the oceans have their sources from national boundaries.[51] Although national legislations have not been able to solve the problem of plastic waste release into the ocean, it would be cumbersome and time consuming to carry out an analysis of the effectiveness of State legislations on plastic waste.

The ocean is regarded as a common resource or a public good having its management fall under international jurisdiction with certain exceptions. It is also an important resource in that it is regarded as the world's largest carbon sink and currently threatened by plastic pollutants.[52] This importance, acknowledged by the international community, resulted in a 2022 UNEA Resolution to end plastic pollution. Thus, this thesis, acknowledging the recent decision to develop a binding international treaty on plastics by 2024, and acknowledging that a zero draft treaty has already been developed, will advocate for an emphasis on the principle of state responsibility and liability in not only proactively protecting the ocean from new plastic waste but in remedying the existing situation.

1.6 Outline

Chapter 2, 'The Basic Idea of State Responsibility and Liability in International Environmental Law' analyses the concept and foundations of state responsibilities and liabilities in international law. It also discusses the distinction between state responsibility and state liability in international law. This chapter lays the foundations for the analyses of the existing international regulatory instruments on ocean pollution that is discussed in chapter 3.

[51] Thushari and Senevirathna 2020, 3.

[52] Ford et al. 2022, 7.

Chapter 3, 'Existing International Regulatory Instruments on Ocean Plastic Pollution' analyses the current international environmental law framework protecting the ocean from pollution. The aim of this chapter is to answer the question whether and to what extent States have a duty under current international environmental law not to cause plastic pollution to the ocean. The second question on whether and to what extent States have a responsibility under the current international environmental law to mitigate the damages caused to the ocean by plastic waste will also be answered under this chapter. The provisions of Multilateral Environmental Agreements (MEAs) such as United Nations Convention on the Law of the Sea (UNCLOS), Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), International Convention for the Prevention of Pollution from Ships (MARPOL), Convention on Biological Diversity (CBD), Convention on the Conservation of Migratory Species of Wild Animals (CMS), Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention), relating to state responsibilities not to cause ocean plastics pollution will be examined.

Chapter 4, 'Environmental Obligations Arising from the Principle of State Responsibility and Liability' analyses the environmental obligations ensuing from the principle of state responsibility and liability. Case studies of the ICJ are also analysed in this chapter with the aim of establishing whether States have a responsibility to protect the environment. The aim of this chapter is to answer the question on whether the principle of State responsibility and liability is an effective tool in mitigating the damages caused to the ocean by plastic pollution. The chapter further analyses the relevance of the principle of state responsibility and liability to the effective management of ocean plastic pollution.

Chapter 5 will contain an overall analysis of the research questions posed as well as recommendations. Chapter 6 summarizes the main findings of the master's thesis and contains concluding thoughts.

"The process of the creation of customary law is one of the mysteries of the law, whether in international law or in national legal systems."

~ Common rejoinder submitted by the Government of the Kingdom of Denmark and the Kingdom of the Netherlands, 1968.

2 The Basic Idea of State Responsibility and Liability in International Environmental Law

2.1 Introduction

Apportionment of responsibility for an action causing environmental damage has over time, become an area of hot debate.[53] From the first decision of the International Court of Justice (ICJ) in 1941 on transboundary pollution to the present decade, the topic of state responsibilities and liabilities in environmental pollution continues to be an area for discussion amongst scholars and academics.[54] Moreover, progress has been made in the area of customary law, the development of principles by the International Court of Justice (ICJ) and the design by the International Law Commission (ILC) of a valid, albeit non-binding Draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA) to define and establish the boundaries of the responsibilities and liabilities of the State for

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[53] Schmalenbach 2023, 43. See also Handl 2007, 116; Sucharitkul 1996, 18; Rosas 1991, 32; Boyle 1990, 1; D'Arge and Kneese 1980, 427; Malgosia, Fitzmaurice, 'A Few Reflections on State Responsibility or Liability for Environmental Harm', retrieved from https://www.ejiltalk.org/a-few-reflections-on-state-responsibility-or-liability-for-environmental-harm/ accessed on 9 January 2024.

[54] See *Trail Smelter Arbitration (United States v. Canada)*, 3 R.I.A.A. 1905 (includes *Convention for Settlement of Difficulties Arising from Operation of Smelter at Trail*, B. C. and the two decisions of the Arbitral Tribunal). Decision of Apr. 16, 1938: (193g) 33 AJIL 182. See also, Arcari 2022, 3-21; Voigt 2021, 1003-1021; Percival 2020, Hoq and Hoque 2019, 59.

internationally wrongful acts.[55] This chapter, in analysing the concept and foundations of state responsibilities and liabilities in international environmental law, lays the foundation for the analysis of the existing international regulatory instruments on ocean pollution in chapter 3.

2.2 Concept, History and Foundations

State responsibility has been defined as the principle of holding a State responsible for internationally wrongful acts committed against another State.[56] Due to its historical antecedents, the principle of state responsibility and liability has undoubtedly developed into a principle of customary international law.[57] Alongside treaties and general principles of law, customary law continues to have increasing influence on the development of international environmental law.[58] The expanding influence of this area of law is further underscored by the acknowledgement, of the Permanent Court of International Justice (PCIJ) and its successor, the International Court of Justice (ICJ) that certain essential norms in international law have entered into the realm of and can now be classified as customary law.[59]

The modern concept of state responsibility and liability can be traced initially to the Roman law of delict.[60] The Roman law of delict was to the extent that liability should be imposed

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[55] The Draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA) is regarded as non-binding document of the International Law Commission. The Courts have however used the content of the ARSIWA in a persuasive capacity. See Barber 2022, 18.

[56] Sham 2021, 667-738.

[57] Sucharitkul 1996, 823.

[58] Lepard 2010, 3.

[59] Ibid, 3.

[60] Sabahi 2011, 12.

on the perpetrator of a wrong or crime towards the victim. The aim was to secure people's interests and to provide retribution for wrongdoing.[61] The development of this principle was further influenced by other legal developments such as canon law, theological doctrines and natural law concepts.[62] Over the years, this principle has evolved, found its way into international law and expanded to include the protection of foreign nationals as well as the doctrines of reprisal and denial of justice.[63] Consistent practice in an area of law is what often results in customary law.[64] This position is echoed in the definition by the Statute of the International Court of Justice stating that international customary law is that area of international law evidenced by general practice which is accepted as law.[65]

Conditions nevertheless exist for an area of international law to be regarded as customary international law. First, the area of law must be consistently practiced among States over a long period of time.[66] It is not so clear the length of period needed for a custom to become law and still very much in debate, but it appears to be in agreement by scholars, academics and jurists that it must be a pretty long time.[67] Second, States have to believe in the legal mandate of the practice. This practice is also referred to as *opinio juris.*[68] By 1928, the PCIJ had recognised the principle of state responsibility and liability as a principle of

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[61] Jansen 2021, 11.

[62] Sabahi 2011, 7.

[63] Ibid, 7.

[64] Ibid, 4.

[65] Article 38(1), Statute of the International Court of Justice. Charter of the United Nations and Statute of the International Court of Justice, June 26, 1945, 59 Stat. 1031 (the Charter), 1055 (ICJ Statute), T. S. No. 993 (ICJ Statute at 25) 3 Bevans 1153 (I.C.J. Statute at 1179).

[66] Scharf 2014, 341.

[67] Lepard 2016, 65.

[68] Lepard 2010, 6.

international law. In the famous *Chorzów Factory* case,[69] the PCIJ decided that States are, under international law, responsible for the actions of their organs or officers and where violations of international law occur, reparations must be made by the offending party.[70] Thus, the decision of the PCIJ follows from the PCIJ's positionality on the principle of customary international law.[71]

The intervention of the International Law Commission (ILC) in the conceptual journey of the principle of state responsibility and liability has lessened the need of academics and scholars to debate the definition of state responsibility and liability. This is because the ILC concluded and adopted its Draft Articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA) in 2001 after almost 50 years of work on the subject and its definitions of the state responsibility and liability became largely accepted by the international community.[72] With its definition of state responsibility and liability now largely accepted, the work of the ILC in this area has in turn, diverted the attention of legal scholars to the analysis of the provisions of the ARSIWA.[73] According to Article 1 of the ARSIWA, a State is responsible for any internationally wrongful act which is attributed to it.[74]

Accountability for transboundary environmental damages became a more prominent topic for discussion after the *Trail Smelter arbitration* in which the government of the United

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[69] *Germany v. Poland* (1928) P.C.I.J., Ser. A, No.17.

[70] Ibid.

[71] Aust 2010, 376.

[72] Crawford, Peel, and Olleson 2001, 963.

[73] Crawford 2022, 874.

[74] International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts,* November 2001, Supplement No.10 (A/56/10), Chp. IV.E.1, available at https://www.refworld.org/docid/3ddb8f804.html [accessed 15 January 2024].

States held the government of Canada responsible for the environmental damages caused by a smelting plant located in Canadian territory. Prior to this time, the principle of state responsibility for transboundary environmental damages was encapsulated in the principle of state sovereignty to the extent that States were responsible for actions on their territory and owed no responsibility to others, except their nationals, for the way and manner ownership, control, management and use of these resources within their territories were exercised.[75] Also Known as the *Harmon doctrine*, this principle was however not very popular as States preferred to adopt the principle limiting the use of their territories to the extent that it does not damage or injure the property of others pursuant to the maxim of *sic utere tuo ut alienum non laedas.* In other words, the existence of responsibility and liability for transboundary environmental harm was not very popular in international law.

Nonetheless, the principle of state responsibility did not take root in international environmental law until the 1970s.[76] The reason for this development is not far-fetched. Prior to the 1970s, there was little development in the area of international environmental principles, few international environmental agreements concluded, and few cases decided.[77] This period has also been referred to as the 'Early Glimmers'[78] or 'Traditional Era'[79] in the history of the development of international environmental law. The 1970s was however, the period of awakening in international environmental law. It is also regarded as a watershed moment in international environmental law.[80] This period, characterised by the development of basic framework of international environmental law, has been

[75] Schneider 1979, 329.

[76] Falkner 2020, 101.

[77] Weiss 2011, 3.

[78] Ibid.

[79] Sand 2015, xiv.

[80] Weiss 2011, 3.

regarded as the 'Modern Era' of international environmental law.[81] The significance of this period was highlighted by the series of conferences that took place – the United Nations Stockholm Conference on the Human Environment held in 1972 (Stockholm Conference) was the conference that heralded the consciousness of States to the importance of preservation of the environment for the benefit of future generations.[82] The key output of the Stockholm Conference was the Stokholm Declaration on the Human Environment. The Stockholm Declaration contained 26 principles that focused majorly on placing environmental issues at the forefront of international dialogue.[83] Principle 21 of the Stockholm Declaration declares that: "States have, in accordance with the Charter of the United Nations and the principles of international law the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."

In particular, the *Trail Smelter Arbitration,* the Stockholm Declaration, alongside the ILC's ARSIWA, reinforced the principle that States have responsibility and liability towards other States as well as the environment.

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[81] Ibid.

[82] Ibid, 4.

[83] United Nations, United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm, retrieved from https://www.un.org/en/conferences/environment/stockholm1972#:~:text=The%20Stockholm%20Declaration%2C%20which%20contained,and%20the%20well-being%20of accessed on 13 January 2024.

2.2.1 The Trail Smelter Arbitration[84]

The *Trail Smelter arbitration* can be traced to as far back as 1927, when the United States proposed and the Government of Canada agreed that the growing environmental concerns arising from the operations of the smelter at Trail, British Columbia, be referred to the International Joint Commission (IJC). The case was later settled by arbitration. The fact of the case was that the Government of Canada operated a metals refinery – Trail Smelter, in British Columbia which operations started prior to the First World War in 1914. A consequence of the First World War on the smelting operations, was that the company operating the Trail Smelter was forced to ramp up production: (i) in response to Germany controlling the trade in global zinc supply at that time; and (ii) an increased demand for its output which was a feedstock for the manufacture of shells. The implication of this was that the increase in the rate of ore smelting also produced increased the smelting company's sulphur dioxide emissions. These emissions, in the form of thick smoke, eventually found their way across the border into the State of Washington in the United States, affecting the crops of the residents who were largely farmers.

At first, the matter was referred to the IJC, but the plaintiffs were dissatisfied with the decision of the IJC and later referred the matter to arbitration. The decision of the arbitration tribunal became a landmark decision in the matter of state responsibility for environmental harm. To that extent, the arbitration tribunal decided that: "no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."[85] In simple terms, it means the arbitration reinforced the principle of customary international

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[84] *Trail Smelter Arbitration (United States v. Canada)* (1938 and 1941) 3 Reports of international Arbitral Awards (R.I.A.A) 1905-1982.

[85] "Trail Smelter Arbitral Tribunal Decision," *American Journal of International Law* 35 (1941): 716.

law that a State has the duty at all times to protect other States from the harmful effects of activities carried on within its territory.[86]

2.2.2 The Stockholm Declaration on the Human Environment

The Stockholm Declaration on the Human Environment was an output of the Stockholm Conference on the Human Environment held in 1972 in Stockholm, Sweden (Stockholm Conference). The Stockholm Conference was a milestone in international environmental law. Whereas at the time of the *Trail Smelter* arbitration, there was not much development in the development of international environmental law, by 1972, States had recognized the increasing need for cooperation at an international level to address environmental problems. The first result of this attempt was the Stockholm Conference.[87] The major output of the Stockholm Conference was the Stockholm Declaration on the Human Environment (Stockholm Declaration) consisting of 26 Principles and setting out the essence for the protection and preservation of the environment.[88] This is acknowledged in the Preamble of the Stockholm Declaration where it is stated that: "The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments."[89]

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[86] Reports of International Arbitral Awards, Trail Smelter Case (United States v. Canada), 16 April 1938 and 11 March 1941. Volume III pp. 1905-1982, pp1963

[87] Speth and Haas 2006, 53.

[88] Ibid, 59.

[89] Paragraph 2 of the Preamble of the Stockholm Declaration on the Human Environment, (U.N. General Assembly Resolutions 2994/XXVII, 2995/UVII and 2996/XXII of 15 December 1972) (Stockholm Declaration). PP 1.

The Stockholm Declaration also re-echoes the customary international law principle of state responsibility by stating that States have the right to exploit the environment within their jurisdiction but must take care that their activities "do not cause harm or damage to the environment of other States or areas beyond the limits of national jurisdiction."[90] The output of the Stockholm Conference, although not legally binding, set the tone for future international dialogues concerning environmental preservation and state responsibility. The Brundtland Commission, set up in 1987, built on the precedence set by the Stockholm Conference. It developed the guiding principles of sustainable development. The definition of sustainable development by the Commission indicates that States have a responsibility to protect the environment for the present and future generations.[91] It is the position of this research work that the definition of sustainable development is indicative of a responsibility imposed on a State to not just utilise its immediate environment sustainably but to also ensure that the use of its environment has no negative impact on the environment of others.

2.2.3 The Draft Articles on the Responsibility of States for Internationally Wrongful Acts

The International Law Commission was established by the General Assembly in 1947 in accordance with Article 13(1)(a) of the Charter of the United Nations in 1947, with the core function of promoting the development of international law and its codification.[92] One of the first tasks it was given, after its establishment, was the codification of the principles of

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[90] Principle 21, Stockholm Declaration.

[91] United Nations, Our Common Future: Report of the World Commission on Environment and Development. Chapter 2, United Nations, 1987.

[92] International Law Commission (ILC), retrieved from https://legal.un.org/ilc/ accessed on 16 January 2024.

state responsibility.[93] Work began in earnest in 1956, however, it was not until 2001 that the Draft Articles on the Responsibility of States for Internationally Wrongful Acts (ARSIWA) was adopted by the Commission and submitted to the General Assembly of the United Nations.[94] The legal effect of the ARSIWA is that it is not legally binding "as such" as they do not have the status of treaty law.[95] However, the ARSIWA certainly reflects customary principles of international law.[96] Article 1 of the ARSIWA imposes the liability of States for actions that are considered wrongful. It provides that an internationally wrongful action of State entails the international responsibility of that State.[97] The Draft Articles also describes what is constituted an internationally wrongful act. It provides that an act is considered wrongful when such action or omission (i) is attributable to the State under international law; and (ii) constitutes a breach of an international obligation of the State.[98] The definition of an internationally wrongful act suffers from a certain limitation when the issue of State responsibility for environmental damages is considered and raises further queries. It fails to give an either/or option. Therefore, for an act to be categorized as an internationally wrongful act, it must fulfil both conditions.

If the act is attributable to the State under international law but does not constitute a breach of the international obligation of the State, does this still qualify as an internationally wrongful act? The ARSIWA attempts to, albeit poorly, answer this question in Chapter III of the Draft Articles. It explains that a claim that a State is in breach of international obligation can only succeed when the action of that State does not conform

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[93] Audiovisual Library of International Law, retrieved from https://legal.un.org/avl/ha/rsiwa/rsiwa.html/ accessed on 16 January 2024.

[94] Ibid.

[95] Lekkas 2024, 92.

[96] Olleson 2007, 54 and 103.

[97] Article 1, ARSIWA

[98] Article 2, ARSIWA

with what is required of it by that obligation. This is regardless of the origin or character of that obligation.[99] In essence, one is compelled to conclude, in the absence of any superior argument or interpretation, that a State cannot be held to have committed an internationally wrongful act if that act does not constitute a breach of an existing obligation. The ARSIWA further provides that unless the State is bound by the obligation "in question at the time the act occurs", such an act does not constitute a breach of an international obligation.[100] In the case of *Mondev International Limited v. United States of America,* the Tribunal was of the opinion that acts of a State before a treaty came into force cannot be said to constitute a breach of that treaty as the provisions of a treaty cannot be retroactive in their application or enforcement.[101] In this, the Tribunal echoed the provision of Article 28 of the Vienna Convention on the Law of Treaties.

2.3 Conceptual Distinction Between State Responsibility and State Liability in International Law

The concept of state responsibility has historically encompassed the theory of liability for environmental damage or put in another way, the vocabulary used to express state responsibility was also used to explain the concept of state liability. There existed no clear distinction between the two concepts as the term state responsibility was used to mean both 'responsibility' and 'liability'.[102] In certain European legal systems such as French, Spanish and Italian legal systems, the word 'responsibility' was often used to convey the

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[99] Article 12, ARSIWA

[100] Article 13, ARSIWA.

[101] *Mondev International Ltd. v United States of America* (ICSID Additional Facility Case No ARB(AF)/99/2), Award of 11 October 2002

[102] Barboza 2010, 22.

meaning of both 'responsibility' and 'liability'.[103] The modern distinction between State responsibility and liability was the result of the ILC's work. Whereas in the ARSIWA, the ILC provides that 'every internationally wrongful act of a State entails the international responsibility of that State',[104] its work titled 'International Liability for the Injurious Consequences Arising out of Acts Not Prohibited by International Law' was an attempt to explain the concept of liability thereby dichotomizing the concepts of 'State responsibility' and 'State liability'.[105]

State liability in international law has nevertheless been defined as the obligation that a State has, to compensate non-nationals of other States and in some cases, those other States, for damages occurring as a result of actions carried out on its territory but which affects the territories of those other States.[106] In other words, it is the consequences that has a State has to bear for committing an internationally wrongful act.[107] Thus, in this research work, state responsibility and liability will be used together to explain the responsibility that States have to their environment as well as the liability to compensate other States for harm.

2.4 Conclusion

In this chapter, an attempt has been made to introduce and discuss the history and foundations of the concept of state responsibility and liability in international environmental law. The principle, having developed as a principle of international

[103] Ibid

[104] Article 1, ARSIWA.

[105] D'Argent 2022, 210.

[106] Sucharitkul 1996, 822.

[107] Horbach 1991, 47.

customary law, imposes on States the responsibility the duty to ensure that States manage the resources within their jurisdictions without causing damage to the environment of others.

"Plastic waste is now found in the most remote areas of the planet. It kills marine life and is doing major harm to communities that depend on fishing and tourism."

~ Antonio Guterres, *UN Secretary General (2017 -?)*

3 Existing International Regulatory Instruments on Ocean Plastic Pollution

3.1 Introduction

From time immemorial, the ocean has been important to man's existence. The ocean played an important role in the discovery, formation, and evolution of civilisations. Today, the ocean serves as a major transportation route aiding trade and the exchange of goods and services between countries. It also serves as a valuable source of food for humans with its varied and rich food chain. Scientists continue to understudy the importance of the ocean to our continued existence and have found that the ocean is the earth's carbon sink, generating nearly half of the oxygen humans need for their continued existence and absorbing a quarter of the carbon dioxide produced.[108] The ability of the ocean to continue to deliver on this important function is threatened by human activities amongst which plastic pollution constitutes one of the biggest.[109] Nevertheless, States have, in the history of international environmental law, attempted to introduce regulations for the governance of the ocean with the aim of preserving this important natural resource. This section of the thesis reviews existing international environmental law framework on ocean governance with the aim of highlighting the provisions relating to protecting the ocean from plastic

[108] McIntyre et al. 2020, 2.

[109] Crisp et al. 2022, 1.

pollution. This chapter of the research work will aim to answer the question whether and to what extent States have a duty under international environmental law not to cause plastic pollution to the ocean as well as whether States have a responsibility under the current multilateral environmental agreements to mitigate the damages already caused to the ocean.

3.2 United Nations Convention on the Law of the Sea (UNCLOS)

3.2.1 Background

The United Nations Convention on the Law of the Sea (UNCLOS) was adopted in 1982 at the Third United Nations Conference on the Sea. The aim of the UNCLOS was to create "a legal order for the seas and the ocean which will promote the peaceful use of the seas and oceans, the equitable and efficient utilisation of their resources, the conservation of their living resources and the study, protection and preservation of the marine environment".[110] Prior to this date, on 17 December 1970, the General Assembly of the United nations had declared, as common heritage of humanity, that area of the seabed and ocean floor and its subsoil that is beyond national jurisdiction.[111] The declaration was a response to certain developments of that era - the expansion of national jurisdictions beyond national borders and subsequent ownership claims of parts of the sea which was known to be governed by

[110] United Nations Convention on the Law of the Sea (UNCLOS) UN General Assembly, Convention on the Law of the Sea, 10 December 1982, entered into force 16 November 1994 (UNCLOS), Preamble, Para. 6 available at: https://www.refworld.org/docid/3dd8fd1b4.html [accessed 28 January 2024].

[111] UNCLOS, Preamble, Para. 8.

the concept known as 'freedom of the seas' by countries such as the United States, Chile, Peru and Ecuador.[112]

The UNCLOS was therefore an attempt to rein in these challenges, as well as standardise States' claims to maritime zones and the resources within them and provide states with mechanisms for settling disputes when they arise while creating an effective framework for the governance of the seas.[113] The UNCLOS currently has 169 parties while 157 States have ratified it.[114]

3.2.2 The UNCLOS and Ocean Plastic Pollution

The UNCLOS is the ocean's key governing instrument providing framework for ocean protection.[115] Protection and preservation of the ocean is therefore a central theme of the UNCLOS.[116] Part XII of the UNCLOS titled "Protection and Preservation of the Marine Environment" is the part of the UNCLOS that deals with the protection and management of the ocean. Article 192 imposes a general obligation on States to protect and preserve the marine environment of which the ocean is part.

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[112] House of Lords, UNCLOS: The Law of the Sea in the 21st Century. House of Lords, International Relations and Defence Committee 2nd Report of Session 2021-22. HL Paper 159. PP7.

[113] Ibid. 3.

[114] United Nations Treaty Collection, 'Chapter XXI, Law of the Sea', retrieved from https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en#:~:text=Signatories%20%3A%20157.,Parties%20%3A%20169.&text=CTC-Arabic%3B%20CTC-Chinese,1833%2C%20p accessed 28 January 2024.

[115] Nagtzaam et al. 2023, 191.

[116] UNCLOS, Preamble, Para. 6.

The UNCLOS acknowledges that States have the right to exploit the natural resources within their jurisdictions in the manner that they deem fit. Nevertheless, this must be done in accordance with their duty to protect and preserve the environment.[117] Also, in exercising this right, States have a duty to ensure that activities undertaken within their jurisdictions do not cause any harm or damage to other States and their environment.[118] It is also the duty of States to take care that the pollution arising from these activities do not spread beyond their borders.[119] States also have the duty to take all measures necessary to prevent, reduce and control pollution of the marine environment from any source.[120] While the UNCLOS does not specifically refer to plastic pollution or plastic waste, the UNCLOS contains an umbrella provision imposing an obligation on States to prevent pollution to the ocean and, from activities such as land-based sources,[121] seabed activities beyond the limits of national jurisdiction,[122] dumping,[123] pollution from vessels,[124] and pollution from or through the atmosphere.[125]

With regard to plastic pollution control and management in the ocean, the UNCLOS is regarded as suffering from a number of key limitations that render it ineffective in solving the problem of ocean plastic pollution. First, its provisions are regarded as not directly addressing the problem of ocean plastic pollution in a definitive way. The UNCLOS addresses pollution generally and this generalisation appears to be a key weakness of the

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[117] UNCLOS, Art. 193.

[118] UNCLOS, Art. 194, Para. 2.

[119] Ibid

[120] UNCLOS, Art. 194.

[121] UNCLOS, Art. 207.

[122] UNCLOS, Art. 208.

[123] UNCLOS, Art. 210.

[124] UNCLOS, Art. 211.

[125] UNCLOS, Art. 212.

treaty when it comes to the issue of marine plastic pollution.[126] Being too broad means that it creates an avenue for speculation and argument as to what types of pollution, the treaty intends to address.

It is also important to note that the UNCLOS does not define 'ocean' although one can deduce that the treaty addresses the ocean as environment beyond the national jurisdiction of States.[127] Another problem facing the UNCLOS in being an effective environmental management instrument is the fact that it makes no provisions for the removal of plastic waste from oceans as well as the lack of an effective compensation scheme to accommodate States engaged in mandatory pollution control.[128]

3.3 Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters (London Convention) and its Protocol.

3.3.1 Background

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters (London Convention) entered into force in 1972. It was signed at such a time when the attention of the international community was roused to the importance of environmental protection and preservation. The London Convention was adopted the same year the United Nations Conference on the Human Environment was concluded in Stockholm, Sweden and therefore could be said to have been intended to ride on the increased global awareness of environmental issues at that time. Overall, there are eighty-seven State parties to the London Convention.

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[126] Nagtzaam et al. 2023, 194.

[127] UNCLOS, Art. 1, Para. 4.

[128] Nagtzaam et al. 2023, 194.

In addition to the London Convention of 1972, States also adopted the 1996 Protocol to the London Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matters 1972 (also known as the London Protocol). It was the intention that the London Protocol would introduce new environmental principles as well as modernise the London Convention but along the line, State parties to the London Convention chose to let the London Protocol remain as some sort of independent agreement with the expectation that existing State parties of the London Convention and new members would be encouraged to be parties to the London Protocol. Unfortunately, the desired outcome was not achieved.[129] In fact, there are less State parties to the London Protocol than the London Convention and the United States is not a member.[130]

3.3.2 The London Convention and Ocean Plastic Pollution

The London Convention as well as the London Protocol both aimed to achieve similar objectives: the promotion of the effective control of all sources of pollution of the marine environment.[131] The London Convention acknowledged that States have the sovereign right

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[129] Hoon and Lee 2015, 47-56.

[130] United Nations Treaty Collection, 'Convention on the prevention of marine pollution by dumping of wastes and other matter' retrieved from https://treaties.un.org/pages/showDetails.aspx?objid=08000002800fdd18 accesses on 4 April 2024. See also United States Environmental Protection Agency, 'Ocean Dumping: International Treaties' retrieved from https://www.epa.gov/ocean-dumping/ocean-dumping-international-treaties#:~:text=The%20United%20States%20signed%20the,is%20not%20a%20Contracting%20Party accessed on 29 January 2024.

[131] Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters 1972 1046 United Nations Treaty Series (UNTS) 120 adopted on 29 December 1972, entered into force 30 August 1975 (London Convention), Art. 1.

to exploit their resources as well as the accompanying responsibility to ensure that when activities carried out within their borders, these activities do not cause damage to the environment outside of their national borders and belonging to other States.[132] The London Convention also acknowledged the importance of the marine environment and the organisms existing therein to the benefits of humanity as well as the limited capacity of the sea to absorb wastes and neutralise their effects.[133] Thus, the issue of pollution of the marine environment and by extension, the ocean, by dumping was the central theme of the London Convention.[134]

The London Convention imposes an obligation on States to take effective measures to prevent ocean pollution by dumping.[135] Dumping is the deliberate disposal of wastes or other matter in the sea. This can either be done by vessels, aircraft, platforms, or other man-made structures at sea.[136] Dumping also includes "deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea".[137] The London Convention does not cover the disposal of wastes generated from the exploration, exploitation and associated off-shore processing of sea-bed mineral resources.[138] 'Wastes and other matter' is also defined as "material and substance of any kind, form or description".[139]

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[132] London Convention, Preamble, Para. 3.

[133] London Convention, Preamble, Para. 1.

[134] London Convention, Preamble, Para. 5.

[135] London Convention, Art. II.

[136] London Convention, Art. III, Para. 1(a).

[137] London Convention, Art. III, Para. 1(b).

[138] London Convention, Art. III, Para. 1(c).

[139] London Convention, Art. III, Para. 4.

Thus, the focus of the London Convention and its Protocol is on prohibiting the dumping of any wastes or other matter in whatever form or condition listed in Article I.[140] The London Protocol also adopted a stricter approach to dumping by prohibiting dumping of all forms of wastes excluding those listed in Annex I.[141] The list of wastes or other matter that may be considered for dumping does not include plastic waste. Therefore, to this extent, dumping of plastic waste in the ocean is also prohibited.

The London Convention as well as the London Protocol are both ambitious in their approach to the protection of the marine environment as they outrightly prohibit the dumping of every type of waste in the marine environment.[142] Nevertheless, it has been considered that the London Convention and the London Protocol, when creating the list of waste or other matters that may be considered for dumping did not consider that this category of waste may contain plastic components which in time would degrade into smaller fragments and contribute to the pollution of the marine environment.[143] In addition, the seventh category of Annex I permits "similarly unharmful materials" to be discharged into the ocean. Since this provision is ambiguous, argument can be made that it can include plastic waste, therefore limiting the effectiveness of the London Convention and the London Protocol.[144]

The effectiveness and reach of the London Convention is also limited by the fact that the Convention does not enjoy universal adoption. This is more apparent in the adoption of the Protocol which was intended to supersede the London Convention but has even less State

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[140] Nagtzaam et al. 2023, 183. See also London Convention, Art. IV.

[141] 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter, 1972 (London Protocol), Article 4(1).

[142] London Convention, Art. IV; London Protocol, Art. 4.

[143] Nagtzaam et al. 2023, 184.

[144] Ibid.

parties – 53 parties compared to the London Convention's 87 parties.[145] The United States is a Contacting Party to the London Convention and has ratified it. However, the United States is yet to ratify the London Protocol despite being a signatory since 1998.[146] The United States occupies a central role in international environmental law and by this reason, to the effectiveness on international ocean governance due to the fact that it quickly established itself as a leading advocate of international environmental law.[147] Thus, the non-ratification and consequently, lack of approval of the London Protocol by the United States may have potentially influenced the lethargic attitude of other States to participate in the London Protocol. In effect, the London Protocol has failed to achieve the universal ratification necessary to make the treaty an international success. This is because in international law and subject to certain exceptions, States are not bound by treaties to which they have not given their consent.[148]

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[145] International Maritime Organization, Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter. Retrieved from https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx accessed on 30 January 2024.

[146] United States Environmental Protection Agency, Ocean Dumping: International Treaties. Retrieved from https://www.epa.gov/ocean-dumping/ocean-dumping-international-treaties#:~:text=The%20United%20States%20signed%20the,is%20not%20a%20Contracting%20Party accessed on 29 January 2024.

[147] Keleman and Knievel 2015, 949.

[148] 1969 Vienna Convention on the Law of Treaties adopted 23 May 1969 and entered into force on 27 January 1980. United Nations, Treaty Series, vol. 1155, p. 331 (Vienna Convention), Art. 26.

3.4 International Convention for the Prevention of Pollution by Ships (MARPOL)

3.4.1 Background

Ships are regarded as one of the major means of transportation across the world as the oceans and seas are to ships what roads are to motor vehicles or rail roads to trains. In fact, for instance, in 2022, sea transportation accounted for 46% of the goods traded between the European Union (EU) and the rest of the world.[149] The sea, as a popular means of transportation is therefore constantly at risk of pollution by ships. In 1967, the *Torrey Canyon* disaster occurred, spilling thousands of gallons of oil into the sea and rousing international concern for the protection of the seas and oceans from spillages occurring from the activities of ships. The International Convention for the Prevention of Pollution by Ships (MARPOL), adopted in 1973, was therefore a response to the pollution of the sea by ships.

The Amoco Cadiz incident of 1978 contributed to the adoption in 1978 of a Protocol to the MARPOL.[150] Since the MARPOL had not entered into force as at the time of the 1978

[149] In the EU, the sea has also been regarded as the preferred mode of transport for imports in 22 of the EU Member States in 2022. See also Eurostat, 'Statistics Explained. International trade in goods by mode of transport', retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International_trade_in_goods_by_mode_of_transport&oldid=611377 accessed on 31 January 2024.

[150] Gasu 2022, 125.

Protocol, the decision was taken to absorb the 1978 Protocol into the MARPOL and formed one main treaty. The MARPOL was updated by amendments through the years.[151]

3.4.2 The MARPOL and Ocean Plastic Pollution

The MARPOL, like other similar international agreements governing the ocean and ratified before it, acknowledges the need to protect the ocean environment from the "deliberate, negligent or accidental release of oil and other harmful substances from ships."[152] The MARPOL's aim was therefore the achievement of "the complete elimination of intentional pollution of the ocean by oil and other harmful substances and the minimisation of accidental discharge of such substances."[153] The MARPOL was designed to regulate all types of pollution from vessels and includes six annexes.[154] Annex I regulates the discharge of oil into the marine environment by ships.[155] It also contains requirements for the construction of ships in line with the prevention of the oil pollution.[156] Annex II regulates ships that convey noxious substances in bulk and the discharge into the sea of substances

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[151] International Maritime Organization, International Convention for the Prevention of Pollution from Ships (MARPOL), retrieved from https://www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx#:~:text=The%20Protocol%20of%201978%20was,Protocol%20absorbed%20the%20parent%20Convention accessed on 31 January 2024.

[152] International Convention for the Prevention of Pollution from Ships, 1973, 1340 United Nations Treaty Series (UNTS) 61, [1988] ATS 29, 17 ILM 546 (1978) adopted 17 February 1978 entered into force 01 October 1983 (MARPOL Convention), Preamble, Para. 1.

[153] MARPOL Convention, Preamble, Para. 4.

[154] Nagtzaam et al. 2023, 184.

[155] MARPOL, Annex 1, Reg. 9.

[156] MARPOL, Annex I, Reg. 16.

that contain these substances.[157] It also contains guidelines for the categorisation of noxious liquid substances.[158]

Annex III contains regulations for the prevention of pollution by harmful substances carried by sea in packaged forms, or in freight containers, portable tanks or road and rail tank wagons. It prohibits expressly the carriage of harmful substances although some exceptions are provided.[159] Annex IV regulates the prevention of pollution of sewage from ships and prohibits the discharge of sewage from ships into the ocean subject to certain exceptions.[160] Annex V regulates the prevention of pollution by garbage from ships. Garbage is defined as all kinds of "victual, domestic and operational waste excluding fresh and parts" which are generated in the normal operations of the ship.[161]
The MARPOL regulates the pollution of the seas by plastic pollution. The definition of garbage does not exempt plastics. In fact, Annex V, which underwent a major revision in 2011, was revised to include plastics as one of the areas of prohibition.[162] Thus, Regulation 3 of Annex V expressly prohibits the disposal into the sea of all plastics including synthetic ropes, synthetic fishing nets and plastic garbage bags subject to certain exceptions.[163] Moreover, the MARPOL permits the disposal of garbage such as dunnage, lining and package materials (which will float), food wastes, paper products, rags, glass, metal, bottles, crockery and similar refuse as far as practicable from the nearest land. Nevertheless, this is only permissible after such garbage has been "comminuted" or processed into ground

[157] MARPOL, Annex II, Reg. 5.

[158] the MARPOL, Annex II, Reg. 5, Appendix I.

[159] MARPOL, Annex III, Reg. 1.

[160] MARPOL, Annex IV, Reg. 8.

[161] MARPOL, Annex V, Reg. 1.

[162] Nagtzaam et al. 2023, 184.

[163] MARPOL, Annex V, Reg. 3.

garbage.[164] Disposal of garbage which is mixed with other discharges with different disposal or discharge requirements is required to have more stringent requirements.[165]

Although the MARPOL is described as relatively successful in achieving its objectives,[166] it nevertheless has several limitations that have limited the level of its success in addressing ocean plastic pollution.[167] First, the scope of the treaty is limited to marine plastic pollution of the sea caused by ships. This scope therefore excludes the plastic pollution of the ocean from land-based sources which are regarded as one of the major sources of marine plastic pollution.[168] In fact, rivers account for at least 80 percent of the plastic waste entering the ocean.[169] Thus, the MARPOL only deals with one aspect of the problem of marine plastic pollution or rather, one source of marine plastic pollution and therefore not positioned to manage the entire gamut of the problem of marine plastic pollution.

The effectiveness of the MARPOL is also limited by the exemptions and opt-out provisions contained in the treaty. For instance, the MARPOL permits "food wastes and other garbage including the paper products, rags, glass, metal, bottles, crockery and similar refuse" to be discarded into the sea after it has been processed by a "comminuter" or grinder. Rags are not defined by the MARPOL, but they ordinarily are made from textiles which, in many cases, have plastics as one of their raw materials. By grinding these products, the plastics in these products are fragmented into microplastics and when they are deposited in, or ultimately find their way to the ocean, they constitute ocean plastic pollution.

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[164] MARPOL, Annex V, Regs. 3(1)(b) and 3(1)(c).

[165] MARPOL, Annex V, Reg. 3(2).

[166] Malgosia 2023, 107. See also Mitsilegas 2022, 107.

[167] Nagtzaam et al. 2023, 187.

[168] Ibid.

[169] Schäli 2022, 288.

3.5 Convention on Biological Diversity (CBD)

3.5.1 Background

The Convention on Biological Diversity (CBD) is regarded as the first agreement to cover all aspects of biological diversity. It is regarded as the international legal instrument for the "conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources".[170] Consequent upon the increasing effect of human activities on biodiversity and the idea that if human activities were left unchecked, several species would become extinct, the CBD is a response to the global recognition of the importance of biological diversity to the continued existence of humanity both present and future. The CBD currently has 196 parties and 168 signatures.[171]

3.5.2 The CBD and Ocean Plastic Pollution

The CBD an international instrument that recognises the "ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetics values of biological diversity" as well as its importance to humanity's continued existence.[172] Like other treaties addressing marine pollution, the CBD was designed on the principle of State responsibility.

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[170] CBD, Art. 1. See also United Nations, International Day for Biological Diversity, 'Convention on Biological Diversity, key international instrument for sustainable development', retrieved from https://www.un.org/en/observances/biological-diversity-day/convention accessed on 2 February 2024.

[171] Convention on Biological Diversity, 'List of Parties', retrieved from https://www.cbd.int/information/parties.shtm accessed on 2 February 2024.

[172] Convention of Biological Diversity of 5 June 1992 (1760 UNTS 69 (CBD) entered into force, 29 December 1993, Preamble, Paras. 1 and 2.

It recognises the sovereign right of States to exploit the natural resources within their jurisdictions albeit subject to the limitation of ensuring that their activities do not result in damage to the environment of other States.[173]

Moreover, the CBD does not contain any provision that regulates the pollution of the ocean by plastics but in 2016, the Conference of the Parties to the CBD adopted a resolution that addresses the pollution of the ocean[174]. The resolution acknowledged the adverse impact of marine debris on marine and coastal biodiversity and urged State parties to develop and implement measures, policies and instruments to "prevent and mitigate the potential impacts of marine debris on marine and coastal biodiversity and habitats".[175] The resolution further prescribed approaches for preventing and mitigating the impacts of marine debris on marine and coastal biodiversity and habitats such as: (a) focusing on preventing the discard, disposal, loss or abandonment of any persistent, manufactured or processed solid material in the marine and coastal environment, and (b) adopting measures and instruments aimed at prevention and mitigation of the adverse impacts of marine debris on the marine environment.[176]

In December 2022, the Conference of the Parties (COP) to the CBD adopted the Kunming-Montreal Global Biodiversity Framework with the aim of further preventing the loss of biodiversity. The Kunming-Montreal Global Biodiversity Framework outlined twenty-targets

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[173] CBD, Art. 3.

[174] Convention on Biological Diversity, Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity, COP Decision XIII/10, United Nations Environmental Programme (UNEP). See also Vuola 2019, 6. Retrieved from https://helcom.fi/wp-content/uploads/2020/02/fanpLESStic-microplastics-summary-report.pdf accessed on 3 February 2024.

[175] COP Decision XIII/10, Para. 6.

[176] Ibid.

aimed at achieving this goal. Target 7 acknowledges the impact of pollution on the earth's biodiversity and is a commitment to "reduce pollution risks and the negative impact of pollution from all sources, by 2030". This commitment also includes reducing and eventually eliminating plastic pollution from the earth's ecosystems.[177]

The CBD, like other treaties concerned with ocean governance, has its own limitations regarding the management of marine plastic pollution. Whilst the CBD acknowledges the negative impact of plastic waste on the marine environment, it nevertheless does so in a non-binding and non-committal sort of way. Although legally binding, it already suffers the setback inherent in most soft law instruments – bindingness and enforceability. Its obligations are also formulated in a soft language that remind more of soft law than strict legal obligations. Further, having its provisions on marine plastic pollution contained in a resolution rather than the treaty means that the subject of marine plastic pollution is placed in a situation of further inefficacy since the decision is non-legally binding albeit relevant for the interpretation of the treaty.[178]

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[177] Convention on Biological Diversity, 'Final text of ´Kunming-Montreal Global Biodiversity Framework available in all languages' retrieved from https://prod.drupal.www.infra.cbd.int/sites/default/files/2022-12/221222-CBD-PressRelease-COP15-Final.pdf accessed on 4 April 2024. See also Convention on Biological Diversity, 'The Biodiversity plan: For Life on Earth' retrieved from https://www.cbd.int/gbf/targets/7#:~:text=Reduce%20pollution%20risks%20and%20the,half%20including%20through%20more%20efficient accessed on 4 April 2024.

[178] Jung 2023, 49.

3.6 Convention on the Conservation of Migratory Species (CMS)

3.6.1 Background

The Convention on the Conservation of Migratory Species (CMS) is a multilateral environmental agreement that was signed in 1979.[179] It was signed at such a time of increased international attention on environmental matters and some years after the first United Nations Conference on the Human Environment. The CMS is an acknowledgement by the United Nations and the State parties to the CMS that the conservation of migratory species of wild animals is essential to the preservation of biodiversity.

Just like the United Nations Framework Convention on Climate Change (UNFCCC), the CMS is a framework convention providing the guiding principles for the protection of migratory species of wild animals through their migratory routes. The CMS entered into force in 1983, and currently has 133 parties.[180] The CMS was adopted in Bonn, Germany and is also known as the Bonn Convention.

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[179] United Nations Environment Programme, 'Convention on the Conservation of Migratory Species of Wild Animals: Progress Report on Relevant Activities Undertaken within the Framework of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) for the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea' retrieved from https://www.un.org/depts/los//general_assembly/contributions_2020/CMS.pdf accessed on 5 February 2024. Pp1.

[180] Convention on the Conservation of Migratory Species of Wild Animals, 'Parties and Range States' retrieved from https://www.cms.int/en/parties-range-states#:~:text=As%20of%201%20March%202022,Migratory%20Species%20has%20133%20Parties accessed on 5 February 2024.

3.6.2 The CMS and Plastic Pollution

The CMS further acknowledges that the current generation is a caretaker of the environment and its natural resources for future generations and therefore, have the responsibility to sustainably utilise its natural resources.[181] Whilst the CMS itself does not contain any reference to marine plastic pollution and its impact on migratory species, the CMS adopted resolutions addressing marine debris including abandoned, lost or otherwise discarded fishing gear (ALDFG) and microplastics, which negatively impact substantial number of migratory marine animals that are threatened with extinction.[182] This provision is laudable as ALDFG is unregulated and constitutes one of the greatest sources of ocean-based pollution. Its impact on the ocean includes degradation of the ocean habitat and its impact on ocean species includes ghost fishing (where the ALDFG continues to capture fish and other marine species), marine wildlife ingestion, distribution and transfer of toxins and microplastics into marine food webs, and altered distributions and behaviour of species that raft on or aggregate beneath floating ALDFG.[183] To continue to bolster its work, the Secretariat of the CMS also carried out a study and prepared a report on the impacts of plastic pollution on freshwater aquatic, terrestrial and avian migratory species in the Asia and Pacific region with the aim of supporting its claim that plastic is indeed dangerous to the marine environment.[184]

The CMS is bedevilled by the same limitations as the CBD. It has its provisions on management of the ocean plastic pollution contained in a resolution rather than the treaty.

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[181] CMS, Preamble, Para. 2.

[182] CMS Resolution 11.30, Management of Marine Debris, UN Doc. UNEP/CMS/Res.11.30 (November 2014); CMS Resolution 12.20, Management of Marine Debris, UN Doc. UNEP/CMS/Res.12.20 (October 2017). See also, McIntyre 2020, 289.

[183] Gilman et al. 2023, 2.

[184] Horton and Blissett 2021, 2.

Resolutions of this nature are generally legally non-binding on Parties.[185] This means that to this extent, the CMS is not effective in addressing ocean plastic pollution impacting migratory species in aquatic environments.

3.7 Basel Convention on the Control of Transboundary Movements and Hazardous Wastes and their Disposal (Basel Convention)

3.7.1 Background

In August 1986, a ship known as the *Khian Sea* left Philadelphia harbour for the Bahamas. On board the vessel was waste incinerator ash labelled as fertilizer. After being turned away at the ports in Bermuda, Honduras, Guninea-Bissau and Dominican Republic, the ship finally made it to Haiti where the 'fertilizer' was agreed to be exchanged for money by the Haitian authorities. As it was being unloaded, the Haitian government got wind of the fraud and ordered the ship out of the country. The waste was later dumped in the sea by the ship's crew.[186] Two years later, in 1988, certain Italian businessmen used the tactics similar to that of the *Khian Sea* to dump drums containing hazardous waste also labelled as fertilizer drums in a small port village known as Koko in the Southern part of Nigeria. The drums were later found to contain toxic hazardous substances.[187]

The *Khian Sea* event as well as the Koko incident could be regarded as the precursors to the Basel Convention and highlighted the increasing problem of international transportation of hazardous waste. In response to these incidents, States met in Basel, Switzerland in 1989 to adopt what is famously referred to as the Basel Convention. The Basel Convention on the

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[185] Jung 2023, 49.

[186] Brownell 2011, 277.

[187] Ibid. See also Ihonvbere 1995, 207-227.

Control of Transboundary Movements and Hazardous Wastes and their Disposal (Basel Convention) was therefore adopted as a response to the international outcry against the dumping of toxic wastes in Africa and other developing countries by industrialised countries.[188] It entered into force in 1992 and is regarded as the most comprehensive agreement on the management of hazardous wastes.[189]

3.7.2 The Basel Convention and Ocean Plastic Pollution

The Basel Convention, since its adoption, has been focused on protecting human health and the environment from the dangers posed by hazardous wastes.[190] Pursuant to the Preamble of the Basel Convention, toxic and hazardous waste generated by States should be managed and disposed in a manner that is consistent with the protection of human health and the environment. [191] Therefore, the Basel Convention prohibits the export of hazardous wastes to other States where the consent of the receiving State has not been obtained (Prior Informed Consent).[192] The transboundary movement of hazardous waste is

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[188] United Nations Environment Programme, Basel Convention Controlling transboundary movements of hazardous wastes and their disposal, 'History of the negotiations of the Basel Convention' retrieved from https://www.basel.int/TheConvention/Overview/History/Overview/tabid/3405/Default.aspx#:~:text=Law%20in%201981.-,The%20Basel%20Convention%20on%20the%20Control%20of%20Transboundary%20Movements%20of,world%20of%20deposits%20of%20toxic accessed 5 February 2024.

[189] Saleh, Hasssan, and Aglan 2024, 3.

[190] The Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal of 232 March 1989 (1673 U.N.T.S. 126) (the Basel Convention), Preamble, Para. 3.

[191] Basel Convention, Preamble, Para. 4.

[192] Basel Convention, Art. 4.

outrightly prohibited between the States listed in Annex VII (industrialised countries) and States not listed in Annex VII (developing countries).[193]

Although the Basel Convention did not initially include plastic pollution within the ambit of its definition of hazardous waste, a subsequent amendment in 2019 brought plastic pollution well within its purview.[194] The Basel Convention therefore now applies to plastic wastes since which is listed as hazardous waste. Another major achievement in this regard, is the Basel Convention's requirement mandating States to reduce the generation of hazardous waste, provide adequate disposal facilities for waste management within their jurisdictions and reduce the transboundary movement of hazardous waste to the barest minimum.[195]

The Basel Convention is laudable in its approach to plastic waste. For instance, the Basel Convention attempts to control hazardous wastes including plastic wastes from source. However, its focus is more on land-based sources of plastic waste to the exclusion of sea-based plastic waste of which the ALDFG remains an active threat and unregulated.[196] The weakness of the Basel Convention is also in the execution of its provisions. For instance,

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[193] Basel Convention, Art. 4A.

[194] The 14th meeting of the Conference of the Parties to the Basel Convention held in 2019 adopted amendments to Annexes II, VIII and IX to the Convention with the aim of bringing the management and control of transboundary movements of plastic waste within the Basel Convention's ambit. See UNEP, 'Basel Convention: Controlling transboundary movements of hazardous wastes and their disposal – Basel Convention Plastic Waste Amendments' retrieved from https://www.basel.int/Implementation/Plasticwaste/Amendments/Overview/tabid/8426/Default.aspx#:~:text=The%20third%20amendment%20is%20the,as%20of%201%20January%202021 accessed on 6 February 2024.

[195] Basel Convention, Art. 4(2).

[196] Wu 2022, 2.

the absence of regulatory institutions and national reporting prevents many newly industrialised countries from reporting any trade in hazardous waste to the Basel Convention.[197]

Least developed countries suffer from a lack of capacity to adequately monitor the transportation of hazardous waste into their territories.[198] This means that plastic waste can be transported to these countries by developed countries under the guise of trade and since these countries also have little to no capacity to manage the waste, the plastics would ultimately find their way into the ocean. The Basel Convention sets out guidelines stipulating requirements for the disposal of plastic waste. These guidelines are said to be non-binding thereby making compliance difficult.[199] Where a party has acted in breach of the provisions of the Basel Convention, punishment is not meted out for non-compliance. The problem of punishing for non-compliance is also one of the major problems of the Basel Convention.

3.8 Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention)

3.8.1 Background

The Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) was the international response to toxic chemicals that have negative impact on the human health and the environment. It was adopted on 22 May 2001 in Stockholm, Sweden, and

[197] Yang 2020, 728.

[198] Ibid, 731.

[199] Raubenheimer and McIlgorm 2018, 287.

entered into force on 17 May 2004. There are currently 186 parties to the Stockholm Convention and 152 signatories.

3.8.2 The Stockholm Convention, Environmental Management and Marine Plastic Pollution

The Stockholm Convention has its focus on chemicals that "resist degradation, bioaccumulate and are transported through air, water and migratory species across international boundaries, where they accumulate in terrestrial and aquatic ecosystems".[200] It therefore mandates States parties to prohibit the production, use, import and export of certain chemicals. These chemicals are listed in Annex A of the Stockholm Convention. They were initially 12 in number and known as the "Dirty Dozen" but the list has since been updated to accommodate additional toxic chemicals.[201] The Stockholm Convention aims at the reduction and elimination of the emissions and discharges of Persistent Organic Pollutants (POPs).[202] During production, POPs such as polybrominated diphenyl ethers (PBDEs), polyfluorinated alkyl substances (PFAS/PFOS) often serve as additives to plastics.[203] These POPs are regarded as dangerous and harmful to the environment. As a result, when plastics containing these POPs are discarded into the environment and ultimately find their way into the ocean, these POPs are likely to interact with the ocean environment. Thus, the goal of the Stockholm Convention would be a reduction in the quantity of plastics containing POPs.[204] Another way the Stockholm Convention can also

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[200] Stockholm Convention on Persistent Organic Pollutants, United Nations Treaty Series (UNTS) vol. 2256, p.119. Adopted 22 May 2001 and entered into force on 17 May 2004 (Stockholm Convention), Preamble, Para. 1.

[201] Ibid.

[202] Bilcke 2002, 328.

[203] Chakraborty et al. 2021, 928.

[204] Raubenheimer and McIlgorm 2018, 287.

achieve it aim of achieving reduction or elimination in POPs in marine plastic litter is to change the composition of chemicals contained in plastics by eliminating the ones that are considered dangerous to the environment.

The Stockholm Convention suffers its own limitations in addressing the problem of ocean plastic pollution. Its major shortcoming is that it applies only to plastics containing POPs.[205] Plastics which contain other hazardous chemicals other than POPs are not addressed by the Stockholm Convention. A good example is the plastic packaging used for food in the European Union, although strictly regulated and unlikely to contain any chemicals categorised as POPs must nevertheless still contain chemicals that are harmful to the environment.[206]

3.9 Conclusion

In this chapter, the current existing regulatory framework governing the management of marine plastic pollution has been discussed with the aim of examining the robustness of their provisions in governing ocean plastic pollution. Current international MEAs on ocean governance have no comprehensive approach to the problem of ocean plastic pollution. For instance, ALDFG, which constitutes a significant threat to the ocean, is currently not regulated by any international MEA. Apart from MARPOL which has weak provisions requiring that any ALDFG lost at sea be reported, no other international MEA specifically addresses this phenomenon. The absence or weakness of current international regulatory framework to deal decisively with the problem of ocean plastic pollution is an indication that the problem of ocean plastic waste needs more attention from the international community. Thus, one can conclude that under current international MEAs, States do not,

[205] Ibid, 288.

[206] Ibid.

expressly, have a duty not to cause plastic pollution to the ocean neither is the duty to mitigate the damages caused by plastic pollution to the ocean environment imposed by any international MEA. The complexity of plastic pollution vis the current manner it is addressed means that a comprehensive approach is required to address this problem using international MEAs.

"If we pollute the air, water and soil that keep us alive and well, and destroy the biodiversity that allows natural systems to function, no amount of money will save us."

~ David Suzuki, *Host, CBC TV's The Nature of Things.*

4 Environmental Obligations Arising from the Principle of State Responsibility and Liability Through the Lens of the International Court of Justice

4.1 Introduction

In previous chapters, it has been established that the right of States to exploit the natural resources within their jurisdictions is accompanied by a corresponding responsibility to ensure that exploitative activities are conducted with the consciousness of ensuring that other States do not suffer from the harmful effect of their activities. This research has also been able to establish, after examining the provisions of international MEAs governing the ocean, that no express obligation is imposed by treaty law on States to protect and preserve the ocean from plastic litter. This chapter of the research work will, using cases decided by the ICJ, consider whether the duty to protect the ocean from plastic is imposed by international case law. The ICJ has, over the years decided cases in which it has established certain obligations States have under international environmental law: (i) the obligation to protect and preserve the environment; (ii) the obligation not to cause transboundary harm; and (iii) obligation to make reparation.[207] This chapter will dissect the different environmental obligations that the principle of state responsibility and liability brings to the fore and the importance of these obligations to the protection and preservation of the ocean from plastic pollution. It will explore whether these obligations

[207] Tanaka 2023, 248.

reflect a duty that States have to protect and preserve the ocean from plastic pollution in the absence of international MEAs containing any express obligation on States not to pollute the ocean with plastic waste.

4.2 The Obligation to Protect and Preserve the Environment

The principle of state responsibility and liability in international environmental law functions in some sort of prevention and preservation dimension.[208] In other words, States have a duty under international environmental law to protect and preserve the environment for the benefit of present and future generations. Beginning from the *Trail Smelter arbitration*, through other cases decided by the ICJ, the obligation to protect and preserve the environment has become established as a principle of customary international law.[209] The essence of the *Trail Smelter arbitration* was to the end that the State has the duty and obligation to prevent transboundary pollution.[210] Although the *Trail Smelter arbitration* was in respect of transboundary air pollution, the declaration by the arbitration panel was nevertheless clear on imposing the obligation of preventing transboundary environmental pollution. This principle was re-echoed in the *Gabcikovo-Nagymaros case.*[211] The *Gabcikovo-Nagymaros case* arose because of a dispute between Hungary and Slovakia, (which at that time was part of Czechoslovakia) over the "construction and operation of the Gabcikovo-Nagymaros System of Locks". Czechosolvakia and Hungary had entered into a treaty in 1977 for the development of the Gabcikovo-Nagymaros project, a system of locks aimed at maximising the utilisation of the Danube River for the economic development of key sectors of the two countries involved in the

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[208] ARSIWA, Art. 13.

[209] Savaresi 2021, 383.

[210] Bratspies and Miller 2006, 1.

[211] *Case Concerning the Gabcikovo-Nagymaros Project (Hungary v. Slovakia*) (Judgment) (1997) ICJ Rep. 7.

project. The project was named Gabcikovo-Nagymaros because the project was to have two series of locks, one in Gabcikovo in Czechoslovakia territory and the other in Nagymaros in Hungarian territory. Nevertheless, these systems were to be classified as a single system of development works and to have been developed and operated jointly by both parties concerned. However, the project generated intense criticism in Hungary which led to the Hungarian government suspending the country's involvement in the project. Also, a key complaint by the government of Hungary was that the project would constitute a serious environmental threat when completed. Czechoslovakia nevertheless continued to develop the project and during this time, the Hungarian government communicated its withdrawal from the 1977 Treaty.

The crux of the dispute was Hungary's assertion that Czechoslovakia (now Slovakia at this time of the dispute) had no right to unilaterally continue with the project let alone developing the project on a jointly controlled natural resource. The dispute was brought before the ICJ to decide on the question, amongst others, on whether the Republic of Hungary had the right to "suspend and subsequently abandon" the development works on the Gabcikovo-Nagymaros project. In its decision, the ICJ restated its position on the responsibility that States have in respect of the environment. According to the ICJ, "The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment".[212] The ICJ then pronounced that the project must be carried out in accordance with sound environmental principles while considering the impact of the project on the environment.

The obligation to protect the environment also implies protecting the environment even in the absence of compelling and concrete scientific certainty as to the impact of an economic

[212] Ibid, 41.

activity. Precaution needs to be exercised. The relevancy of the precautionary principle was recognized by the ICJ in *The Pulp Mills case* where Argentina alleged that the activities of Uruguay polluted the Uruguay River.[213] In *Legality of the Threat or Use of Nuclear Weapons,*[214] the ICJ, in a dissenting judgment *per* Judge C. G. Weeramantry, also noted the importance of applying the precautionary approach to the management, protection and preservation of the environment. Nonetheless, the precautionary principle has gained widespread acceptance by States and is entrenched in several environmental treaties.

The ocean presents a unique case study in the sense that it has been described as a resource shared by and belonging to the whole of humanity.[215] One can therefore argue that obligations arising therefrom would be obligations owed to the international community. The doctrine where obligations is owed to the international community as a whole is regarded to as the *erga omnes* doctrine.[216] The ICJ first alluded to the *erga omnes* obligation in the *Barcelona Traction case*[217]. The *Barcelona Traction case* was not specifically an environmental issue but nevertheless added to the growing legal repertoire on state responsibility and liability. In that case brought before the ICJ in 1962, the Belgian government filed an application against the government of Spain seeking reparation for the damage allegedly caused to the Barcelona Traction, Light and Power Company, Limited on account of acts said to be contrary to international law committed by organs of the Spanish State.[218] The application concerned a number of Belgian nationals that were said to be shareholders of the Barcelona Traction, Light and Power Company, Limited. The fact

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[213] *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* (Judgment) (2010) ICJ Rep. 14.

[214] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (1996) ICJ Rep. 501.

[215]Zhou and Xie 2024, 688.

[216] Ibid.

[217] *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 4.

[218] Evans 1970, 653.

of the case was that Barcelona Traction, Light and Power Company, Limited, a company incorporated in Toronto, Canada in 1911 for the purpose of creating and developing an electric power production and distribution system in Catalonia, Spain, had its bond issuance suspended by the government of Spain in 1936 because of the civil war that broke out in Spain during that period. However, at the end of the war, the government of Spain refused to lift the suspension thus resulting in the company's bankruptcy. In 1962, the government of Belgium filed an application before the ICJ for the reparation of losses incurred by Belgian citizens who were shareholders of the company, as a result of the action of the government of Spain. The government of Belgium claimed that the action of the government of Spain was contrary to international law.

In analysing the case, the ICJ introduced the principle of *erga omnes* and stated that "an essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-à-vis another State in the field of diplomatic protection…In the view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations *erga omnes.*"[219] Although the case was not in favour of Belgium as the ICJ ruled that adopting the theory of diplomatic protection of shareholders would "open the door to competing diplomatic claims" which will pave the way to insecure atmosphere in the arena of international economic relations.[220] Nevertheless, the ICJ, had through this case, influenced the international law on state responsibility indicating that under international law, there exists obligations that States owe to the international community as a whole.[221] If one were to conclude that the ocean belongs to the international community, then it is arguable that

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[219] *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 32.

[220] Ibid, 49.

[221] Memeti and Nuhija 2013, 32.

obligations and rights arising therefrom are rights and obligations belonging to the international community as a whole.[222]

4.3 The Obligation Not to Cause Transboundary Harm

The obligation not to cause transboundary harm is one of the earliest delineated State obligations and is now firmly established as a principle of international customary law.[223] Also regarded as the 'no-harm' principle, the obligation not to cause transboundary harm is regarded as the bedrock of international environmental law.[224] The obligation not to cause transboundary harm can be traced as far back as the *Trail Smelter arbitration,* a case between the United States and Canada on transboundary air pollution where pollutants from Canada caused damage in the US. The no-harm idea arose from the Arbitral Tribunal's judgment that even though every State has a right to utilize the natural resources within their jurisdictions in the manner deemed appropriate, that right is limited to the extent that it is exercised with consideration for the environment of others. According to the Tribunal, "under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein…"[225] In a similar tone, the ICJ referenced the no-harm principle in its decision in the *Corfu Channel case* where it stated that "*it is* every State's obligation not to

[222] Tanaka 2023, 249.

[223] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (1996) ICJ Rep. 501.

[224] Sands et al. 2018, 210.

[225] *Trail Smelter Case (United States v. Canada)* Reports of International Arbitral Awards, 16 April 1938 and 11 March 1941, Vol. III. 1905-1982.

allow knowingly its territory to be used for acts contrary to the rights of other States (emphasis, mine)."[226]

The *Corfu Channel case*[227] was the first case of the ICJ in respect of state responsibility and liability in international law. The case arose as a result of damage to lives and property suffered by some British warships by mines explosions while they were passing through a part of the Albanian waters in the Corfu Channel in 1946. The case was brought before the ICJ by the United Kingdom who accused Albania, amongst other things, of laying or allowing a third State to lay mines after mine-clearing operations has been carried out by Allied operations. The ICJ, in its ruling, held Albania responsible for the mines planted in the Corfu Channel as well as for the damage and loss caused to lives and properties belonging to the British government.[228] The substance behind the ruling of the Court in favour of the United Kingdom was therefore that States had an obligation not to allow their territories to be used for activities that would cause damage to other States.[229] In the opinion of the ICJ, the North Corfu Channel could be considered as belonging to the class of international highways through which passage cannot be prohibited by a coastal State in peace time.[230] The ICJ was of the opinion that Albania had the obligation to inform the United Kingdom of the presence of mines in the Corfu Channel. From the pronouncement of the ICJ, it is apparent that this obligation not to cause harm to the territory of other States extends to a

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[226] *The Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania)* (Judgment) (1949) ICJ Rep. 29.

[227] *The Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania)* (Judgment) (1949) ICJ Rep. 4.

[228] Ibid.

[229] Malgosia 2013, 354.

[230] *The Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania*) (Judgment) (1949) ICJ Rep. 29.

State taking adequate care to prevent a third State using the State's territory for the purpose of causing harm to the territory of another State.[231]

Where a State is alleged to have caused harm, there are certain tests that need to be conducted to establish harm as was set out by the ICJ in *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*[232] In 1993, the Republic of Bosnia and Herzegovina instituted proceedings before the ICJ against the Federal Republic of Yugoslavia alleging that the Republic of Yugoslavia had acted in breach of the Convention on the Prevention of the Crime of Genocide of the United Nations during the conflict that ravaged the Balkans during and after the breakup of the Socialist Federal Republic of Yugoslavia. Due to subsequent break ups, the eventual parties before the ICJ were Bosnia and Herzegovina and Serbia and Montenegro. The ICJ therefore had to consider Bosnia and Herzegovina's argument that Serbia and Montenegro's actions had constituted genocide against the people of Bosnia and Herzegovina.[233]

In ascertaining whether a State is responsible for actions alleged it may have committed, the ICJ set out three tests known as the 'Tests of Responsibility.' First, it needs to be determined whether the alleged act could be attributed to the respondent under the rules of customary international law of state responsibility. This means ascertaining whether the acts were committed by persons or organs whose conduct is attributable to the respondents. Second, it behoves on the court to ascertain whether the alleged acts were committed by persons or organs whose conduct is attributable to the respondent under

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[231] Ibid.

[232] *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)* (Judgment) (2007) ICJ Rep. 43.

[233] Ibid, 43.

those same rules of state responsibility, and third, it is the court's responsibility to rule on the issue as to whether or not the respondent complied with its international obligation arising under an existing treaty or convention or under international law. According to the ICJ, these three issues must be addressed in the order set out because they are "interrelated that the answer on one point may affect the relevance or significance of the others."[234] The 'no-harm' principle was also reflected by the ICJ's position in *Dispute over the Status and Use of the Waters of the Silala (Chile v. Bolivia)* where the ICJ affirmed that in a transboundary context or when it concerns a shared resource (such as the ocean), a State has the obligation to use every means at its disposal to avoid activities carried out on its territory from causing significant damage to the environment of another State.[235]

Ocean plastic pollution, although having most of its sources within the territories of States can be classified as having transboundary effect with the implication that these plastics flow beyond the jurisdictions of different States into the ocean where they negatively impact on ocean species and organisms. Thus, under international customary law, it can be inferred that States have the obligation to protect the ocean from the deleterious effects of their activities since the ocean can be described as an environment beyond national jurisdictions.

4.4 Obligation to Make Reparation

Reparation literally means "to repair" or to "make amends" for a wrong that has been done. It entails five major attributes: restitution, compensation, rehabilitation, satisfaction and

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[234] Ibid, 200.

[235] *Dispute over the Status and Use of the Waters of the Silala (Chile v. Bolivia) (*Judgment) (2022) ICJ Rep. 614.

guaranties of non-repetition.[236] Where there is a breach of a primary obligation, in international law, reparation is often as a consequence.[237] The obligation to make reparation for internationally wrongful acts was alluded to in the *Armed Activities on the Territory of the Congo case.*[238] Although the *Armed Activities on the Territory of the Congo case* is not a case on environmental issues per se but involves the ICJ making pronouncements on the principle of State responsibility and liability. In 2000, the Democratic Republic of Congo (DRC), instituted a case before the ICJ against Uganda for acts of armed aggression and violations of human rights committed against its citizens. The ICJ examined the facts of the case and found that the DRC had not consented to the presence of the Ugandan troops on DRC's territory thereby infringing the DRC's right to sovereignty and territorial integrity and a breach of Article 2(4) of the United Nations Charter. In addition, the ICJ also found that Uganda had breached violated the principle of non-use of force in international relations and the principle of non-intervention.[239]

Nonetheless, the ICJ made certain pronouncements that have effect on the principle of state responsibility and liability. The ICJ declared that, having found Uganda guilty of committing an internationally wrongful act, Uganda had the obligation to make reparation for the damages caused by internationally wrongful acts attributable to it.[240] According to the ICJ, "The Court observes that it is well established in general international law that a

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[236] Evans 2012, 13.
[237] Boyle 2002, 18.
[238] *Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)* (Judgment) (2005) ICJ Rep. 168.
[239] *Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)* (Judgment) (2005) ICJ Rep. 168. Retrieved from https://www.icj-cij.org/case/116 accessed 23 February 2024.
[240] *Case Concerning Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)* (Judgment) (2022) ICJ Rep. 50.

State which bears responsibility for an internationally wrongful act is under an obligation to make full reparation for the injury caused by that act." From the ICJ's analysis, the obligation to make reparation inevitably follows the establishment of the breach of obligation. This position of the ICJ is in line with the provisions of Article 31 of the ARSIWA which provides that the State responsible for an internationally wrongful act is under obligation to make full reparation for the injury caused by the internationally wrongful act. Article 31 took a step further to define injury as including any damage, whether material or moral, caused by the internationally wrongful act of a State. One can therefore conclude that where ocean plastic pollution is categorized as an internationally wrongful act, a case for reparation can be made.

4.5 Obligations of States in respect of Climate Change (Request for Advisory Opinion)[241]

In 2022, the Permanent Ambassador of Vanuatu to the United Nations announced that the country would introduce a resolution for the UN. General Assembly to seek an advisory opinion from the ICJ on the obligations of States in respect of climate change.[242] Vanuatu, officially known as the "Republic of Vanuatu" is a small island country located in the South Pacific Ocean and is regarded as extremely vulnerable to the impacts of climate change by

[241] International Court of Justice, 'Request for Advisory Opinion: Obligations of States in respect of Climate Change' transmitted to the Court pursuant to General Assembly resolution 77/276 of 29 March 2023 retrieved from https://www.icj-cij.org/sites/default/files/case-related/187/187-20230412-app-01-00-en.pdf accessed on 16 March 2024.

[242] Granzotto, Elisa, 'The International Court of Justice's Advisory Opinion on Climate Change and Protection of Human Rights', retrieved from https://cil.nus.edu.sg/blogs/the-international-court-of-justices-advisory-opinion-on-climate-change-and-protection-of-human-rights/ accessed on 16 March 2024.

the World Bank.[243] The projection is that climate change will continue to affect Vanuatu's capacity to cope with climate induced challenges as it is currently being battered by rising sea levels, stronger cyclones, marine heatwaves and extreme rainfall.[244] As a result of the country's positionality with regard to the impacts of climate change and the attitude of other States in respect of making firm commitment on climate obligations, Vanuatu was compelled to approach the ICJ to seek the court's advisory opinion. Vanuatu is seeking the ICJ's opinion on two vital questions. The first question concerns what the obligations of States are, under international law in ensuring the protection of the climate system from the emission of greenhouse gases. The second question concerns what the legal consequences are, for States that have contributed to the climate change problem. This liability includes States that are on the receiving end of the climate change problem such as Vanuatu, as well as individuals (including present and future generations of people).[245] The advisory opinion of the ICJ has no binding force but it nevertheless carries great weight, moral authority, and influence.[246] When the ICJ finally gives its opinion on the Vanuatu's request, it will go a great length in contributing, not only to existing literature on

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[243] World Bank Group, 'Climate Risk Country Profile: Vanuatu', retrieved from https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15825-WB_Vanuatu%20Country%20Profile-WEB.pdf accessed on 16 March 2024.

[244] SPREP, 'New Vanuatu Climate Futures portal website a leap forward for national climate change adaptation', retrieved from https://www.sprep.org/news/new-vanuatu-climate-futures-portal-website-a-leap-forward-for-national-climate-change-adaptation accessed on 16 March 2024.

[245] International Court of Justice, 'Request for Advisory Opinion: Obligations of States in respect of Climate Change' transmitted to the Court pursuant to General Assembly resolution 77/276 of 29 March 2023 retrieved from https://www.icj-cij.org/sites/default/files/case-related/187/187-20230412-app-01-00-en.pdf accessed on 16 March 2024.

[246] International Court of Justice, 'Advisory Opinion', retrieved from https://www.icj-cij.org/advisory-jurisdiction#:~:text=Despite%20having%20no%20binding%20force,help%20to%20keep%20the%20peace accessed on 16 March 2024.

state responsibility and liability, but set the current attitude of States about their climate change responsibilities on a different trajectory.

4.6 Relevance of the Principle of State Responsibility and Liability in Solving Ocean Plastic Pollution

At this juncture, it is pertinent to ask the question, what is the relevance of the principle of state responsibility and liability in solving the problem of ocean plastic pollution? For one to discuss the relevance of state responsibility and liability to the problem of ocean plastic pollution, it is necessary to itemise some salient points which have been the crux of the discussion prior to this section of the research work. First, most plastic that end up in the ocean are land-based which means that ocean plastic pollution has transboundary implications and is a result of transboundary movement of plastic into the ocean. Second, the position of international customary environmental law is that States have a duty to exploit and manage their natural resources bearing in mind that such use does not have adverse effect on the environment of other States. The no-harm principle is more of an obligation of conduct than an obligation of result.[247] The difference between an obligation of result and an obligation of conduct, according to the ILC, lies in the fact that obligations of conduct must be exercised through conduct or action which is determined by the conduct itself whereas obligation of result requires a State to achieve a specific result without taking into cognisance the means used to achieve the result.[248] In fulfilling the obligation to prevent transboundary harm as an obligation of conduct, what this means is that States are required to act with due diligence.[249] Third, where a State has acted in breach of the obligation imposed by a treaty or international customary law, such a State is

[247] Tanaka 2023, 250.

[248] Wolfrum 2020, 364.

[249] Tanaka 2023, 250.

said to have committed an internationally wrongful act.[250] Attribution of an internationally wrongful act is the premise upon which the principle of state responsibility and liability is built.[251] At the centre of the principle of state responsibility and liability in international customary law lies the no-harm doctrine which has been discussed to some extent in preceding sections of this research work. Vanuatu's request for the advisory opinion of the ICJ on obligations of States in respect of climate change underscores the importance of having a definite and firm position in international law with regards to the principle of state responsibility and liability on ocean plastic pollution. States would confirm that they have a general obligation to protect the environment, but contention arises when they have to agree that they have the obligation to protect the environment from anthropogenic emissions of greenhouse gases. Vanuatu's request for advisory opinion is an indication that the principle of state responsibility and liability for environmental matters is not fully settled in international environmental law.

4.7 Conclusion

This chapter has considered the environmental obligations that arise when the principle of state responsibility and liability is applied to environmental protection issues. These obligations have become reference materials for the ICJ in deciding cases where the responsibility of a State for an internationally wrongful act is in dispute. As indicated by all the cases analysed above, one can argue that the general obligation to protect the environment beyond national jurisdictions is no part of international law and should be applicable to the protection and preservation of the ocean from plastic waste. Nevertheless, as evidenced by Vanuatu's request for advisory opinion, this by itself is not sufficient. This means that although there is a general obligation to protect the

[250] ARSIWA, Art. 2.

[251] Voigt 2021, 1003.

environment, since there is at yet no specific obligation to protect the environment from plastic waste, States are not under any obligation in this regard. It is nonetheless an argument that can be settled by the ICJ.

"All the king's horses and all the king's men will never gather up all the plastic and put the ocean back together again."

~ Captain Charles Moore, *Discoverer of the Great Pacific Garbage Patch.*

5 Analysis and Recommendations

5.1 Introduction

The aim of this chapter is to analyse the subject matter of this research work with the objective of providing succinct answers to the fundamental question poised in the first chapter: whether and to what extent States have a responsibility under current international environmental law to protect the marine environment from plastic pollution. In order to be able to fully answer this question, three sub-questions were formulated vis (i) whether and to what extent States have a duty under current international environmental law not to cause plastic pollution to the ocean; (ii) whether and what to what extent States have a responsibility under current international environmental law to mitigate the damages caused to the marine environment by plastic waste; and (iii) whether and to what extent the principle of state responsibility and liability is an effective tool in mitigating the damages already caused to the ocean environment by plastic pollution.

The importance of the principle of state responsibility and liability in solving the problem of ocean plastic pollution as well as the setbacks inherent in utilising this important principle will also be discussed. A new international treaty on plastics is in the works with the aim of solving the issue of plastic pollution with a definite finality and this part of the research work will consider the prospect of enshrining state responsibility and liability as a key principle of the new treaty on plastics to resolve existential challenges of plastic pollution in the ocean. Finally, recommendations will be proposed to aid decision makers and drafters

of the treaty in drafting and agreeing on ambitious conditions for the protection of the world's oceans from plastic pollution.

5.2 The Duty of States Not to Cause Plastic Pollution to the Ocean

In order to explain whether there exists a duty of States not to cause plastic pollution to the ocean, it is important to first answer the question on what categorisation of pollution, ocean plastic pollution falls into. The ocean is described as that area of the seabed, ocean floor, and its subsoil that is beyond the limits of *national jurisdiction* (emphasis, mine).[252] This area is also described as a common area.[253] Most plastic waste, when discarded or inadequately managed within the territories of States find their way into the ocean. Thus, one can conclude that ocean plastic pollution would fall into the category of polluting the area that is beyond the national jurisdiction of a State with the capability of causing transboundary harm.[254] Under international environmental law, pursuant to the no-harm principle, States have a duty not to cause transboundary harm to the territory of other States.[255] The no-harm principle is to the extent that States have the right to exploit the natural resources in their territories in the manner they so deem, nevertheless, this must be done taking the environment of other States into consideration. In effect, other States should not be made to suffer negative impact to their environment as a result of the activities of others on their own territories.[256] The no-harm principle did not originally apply to the marine environment as the efforts of the international community to protect the

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[252] UNCLOS, Preamble, Paras. 6.

[253] Hanqin 2024, 237.

[254] Guggisberg 2024, 1.

[255] *Trail Smelter Case (United States v. Canada)* Reports of International Arbitral Awards, 16 April 1938 and 11 March 1941, Vol. III. 1905-1982.

[256] Ibid. See also the *The Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania)* (Judgment) (1949) ICJ Rep. 29.

marine environment did not intensify until some years after the *Trail Smelter arbitration* where the no-harm principle was first established and became a trending topic in international law. Since then, the ICJ has made reference to this principle in its decisions in several other cases in holding States responsible for their actions which affect the territories of other States.[257] Also, principles of international environmental law, which are established principles of international environmental customary law, have established that States have a duty not to cause transboundary harm to the territory of other States.[258]

The principle of transboundary pollution, in its original context presupposes a bilateral interaction which is not necessarily the case in the ocean pollution. The ocean is not owned by any one State but is the heritage of all humanity. This then raises the question of the possibility of owing a duty to all States under international law. Prior to the *Case concerning the Barcelona Traction, light and Power Company Limited*, an obligation of one State to the entire international community was unknown in international law. International law was more about bilateral relations and consent. For instance, a State is not bound by a treaty to which it had not given its consent.[259] In the course of case development by the ICJ, the concept of *erga omnes* was introduced by the court.[260] The principle is to the extent that there are certain obligations that are owed to the international community as a whole.[261]

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[257] See *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 32. See also *Case Concerning Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Democratic Republic of the Congo v. Uganda)* (Judgment) (2005) ICJ Rep. 168

[258] Stockholm Convention, Principle 21. Rio Convention, Principle 13.

[259] Guzman 2011, 36; Vienna Convention, Art. 12.

[260] *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 32.

[261] Hanqin 2011, 237.

The obligation of not polluting the ocean is further imposed by the UNCLOS.[262] It can also be inferred from the provisions of the UNCLOS that the UNCLOS imposes on States the obligation not to pollute the ocean with plastics. Nonetheless, the lack of specific reference to plastic waste appears to be the Hercules heel of the UNCLOS when it comes to the imposing of the duty not to pollute the ocean with plastic waste. In conclusion, under customary international law as well under international case law, States have a duty not to pollute the environment beyond their national boundaries but no explicit duty not to pollute the ocean with plastic.

5.3 Responsibility of States to mitigate Ocean Plastic Pollution

Having established that there exists, in international environmental law, a general duty imposed on States not to cause pollution to the environment beyond their national jurisdiction but no explicit duty not to cause plastic pollution to the ocean, the next question we seek to answer in this research question is whether and to what extent States have a responsibility under international environmental law to mitigate marine plastic pollution. Plastic pollution in the ocean is largely as a result of anthropogenic activities[263] and current data exists indicating that the world's rate of managing municipal waste is unsustainable leading to increasing rate of discharge of plastics in the ocean.[264] Further, the impact of ocean plastic pollution on humans is not as direct as that of climate change. Unlike ocean plastic pollution, climate change challenges manifest in the form of increased desertification, drought, floodings, irregular rainfall, increased global temperatures, melting of glaciers, etc. with effects felt directly on humans and the environment.[265] Plotting the

[262] UNCLOS, Art. 194.

[263] Ashrafy et al. 2023, 2.

[264] Debnath et al. 2023, 2.

[265] Almroth and Eggert 2019, 320.

graph of damages to the ocean (commons) is not exactly a straight-forward process. It is the position of this research work that ocean plastic pollution raises two potential problems. First, damages can be caused to other States in the commons by virtue of plastic finding its way from one State to the shores and beaches of another State. Second, damages can be caused to the resources or environment of the commons itself. Whereas the principle of state responsibility can be applied in solving the first problem, the second problem will require the *erga omnes* concept in order to hold a State accountable.[266]

But what does environmental mitigation mean? Environmental mitigation has been defined as "any actions that are taken to avoid or minimize negative environmental impacts. This can take various forms, including avoiding the impact by not taking a certain action; minimizing impacts by limiting the scale of the action; rectifying the impact by repairing or restoring the affected environment; reducing the impact by taking protective steps; and compensating for the impact by replacing or providing substitute resources."[267] The aim is to minimise the impacts of naturally occurring environmental disasters such as hurricanes, wildfires, and droughts and also manage the impacts of environmental activities associated with development on human communities.[268] Therefore, the duty to mitigate ocean plastic pollution would mean that States have a responsibility to take actions that would minimise the negative impact of plastic pollution on the ocean. It is a question of "now that this has happened, what can be done about it?" International environmental law recognises certain principles that can be used to guide the activities of States that have acknowledged that there exists a duty in international law to protect the ocean from plastic pollution. These principles include the polluter-pays principle, the principle of prevention and the

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[266] Hanqin 2011, 237.

[267] A Dictionary of Environment and Conservation, 'mitigation', retrieved from https://www.oxfordreference.com/display/10.1093/oi/authority.2011080310020273 accessed on 24 February 2024.

[268] Carse 2022, 579-580.

precautionary principle. The polluter-pays principle and the precautionary principle are the most applicable when trying to establish that there exists a duty on States to mitigate ocean plastic pollution.[269] Nonetheless, in its current state, there exists no obligation, either under customary international law or treaty law, imposed on States in international environmental law to mitigate ocean plastic pollution.

5.4 The Effectiveness of the principle of State Responsibility and Liability in Mitigating Ocean Plastic Pollution

Whether the principle of state responsibility and liability is the way out of the ocean plastic pollution quagmire lies ultimately in the effectiveness of the implementation and enforcement of the principle itself. Environmental issues have not always been the focus of international adjudication bodies in addressing state responsibility and liability. One will probably be correct to assert that the principle of state responsibility and liability has received more attention from the ICJ in cases involving human rights issues. For instance, in the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide,*[270] a case involving human rights, state responsibility and liability was a key question which the ICJ needed to decide. The *Corfu Channel*[271] case was also not a matter on environmental issues as the case concerned the loss of lives and property belonging to the United Kingdom on a part of the Corfu Channel managed by Albania. In that case, the ICJ established the principle in line with customary international law, that a State has the responsibility not to allow its territory to be used in such a manner that another State

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[269] Rio Declaration, Arts. 16 and 17.

[270] *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)* (Judgment) (2007) ICJ Rep. 232.

[271] *The Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania)* (Judgment) (1949) ICJ Rep. 4.

would be negatively affected. Similarly, in *Case Concerning the Barcelona Traction, Light and Power Company, Limited,*[272] a case concerning the suspension of the bond issuance of one State company, in another State, the ICJ introduced the concept of *erga omnes.* These examples are among the few non-environmental law cases where the ICJ had referred to the principle of state responsibility and liability with far reaching effect on international law.

The ICJ has also considered the principle of state responsibility and liability in a few cases concerning environmental issues. The *Case Concerning the Gabcikovo-Nagymaros Project*[273] is a notable case involving the construction of a "System of Locks". Similarly, the ICJ did not fail to emphasise on the principle of customary international law imposing obligation on States to be responsible for attributed internationally wrongful acts. The *Trail Smelter arbitration* set the precedence for the adoption of the principle of State responsibility and its application in international environmental law. Ever since the *Trail Smelter arbitration,* States have accepted that they have an obligation to utilise their environments to exploit their natural resources subject to the limitation that this use must not affect the territories of others. The effectiveness of this principle was the dissuading factor in the nuclear tests carried out by France which was the subject of the dispute in *Nuclear Tests* case[274] where Australia brought a case against France for the environmental impact of France's atmospheric nuclear tests. France declared its intention to discontinue the tests shortly after Australia and New Zealand had filed their case before the ICJ, thus establishing the deterrent effect of the principle of State responsibility and liability on environmental pollution.

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[272] *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 32.

[273] *Case Concerning the Gabcikovo-Nagymaros Project (Hungary v. Slovakia*) (Judgment) (1997) ICJ Rep. 7.

[274] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) (1996) ICJ Rep. 501.

The effectiveness of this principle in combating the menace of ocean plastic pollution needs to be approached from two dimensions. First, in terms of its acceptance and compliance by the international community and second, its enforcement. The principle of state responsibility and liability in environmental law is to the effect that States have a duty to protect the environment from harm and should be held liable for damages that occur as a result of their activities. The level of respect that States give to this principle in respect of mitigation of ocean plastic pollution can make or mar the effectiveness of the principle. Weak decision enforcement mechanism is the bane of the international environmental law. States are therefore not fully retrained from breaching their obligations under international law. It is the opinion of this research that the principle of state responsibility and liability is nonetheless an effective tool in mitigating ocean plastic pollution if the right approach is taken. However, the application of the principle itself is not without challenges which will be discussed in the next section.

5.5 Constraints to the Effective Utilisation of State Responsibility and Liability in Ocean Plastic Pollution

In the preceding sections of this research work, state responsibility and liability has been explained as a veritable tool to solving plastic pollution in the ocean having received the attention of the ICJ in several cases and consequently, the intervention of the ILC in attempted codification. Nevertheless, the principle of State responsibility and liability is not the all-inclusive, all-round solution to the problem of ocean plastic pollution. Its effectiveness is faced with a number of constraints. First, the transboundary nature of marine plastic pollution makes it quite challenging to single out a specific contributor of plastic waste to the oceans. A study carried out in this regard once listed the US as the 20th biggest contributor of plastic waste to the ocean but recent studies have indicated

otherwise and found the US to be the 10th largest contributor of marine plastic litter.[275] In 2015, China, Indonesia and Philippines were listed as the countries that generated the highest quantity of ocean plastic litter.[276] Current data ranks Philippines, India and Malasia as the highest contributors of plastic litter to the oceans.[277]

The problem of singling out a single contributor of plastic debris to the ocean is inextricably linked to the problem of who will be held responsible for the existing plastic debris in the ocean. The *erga omnes* principle endorsed by the ICJ in the *Case concerning the Barcelona Traction, light and Power Company Limited* remains an underdeveloped and much criticized aspect of the principle of state responsibility and liability.[278] This principle was the basis of the ICJ's decision in *Questions relating to the Obligation to Prosecute or Extradite* where the court admitted the case of allegation by Belgium against Senegal for the extradition of a former president of Chad, Hissène Habré for the breach of human rights during his time in office as a former dictator of Chad.[279] Belgium requested for the extradition of Hissène Habré who has been living in exile in Senegal for him to face trial for his crimes. It was the first time in the history of the ICJ that a third country was allowed to stand in another State's matter.[280]

Second, the extent of the multiplier effect of marine plastic debris on the environment poses a challenge to the possibility of state responsibility and liability achieving the desired effect of ocean plastic mitigation. By its nature, ocean plastic pollution is a threat to both

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[275] Law et al. 2020, 2.

[276] Rellan et al. 2023, 2.

[277] Sudirman et al. 2023, 146.

[278] Chow 2021, 481.

[279] *Questions relating to the Obligation to Prosecute or Extradite (Belgium v. Senegal)* (Judgment) (2012) ICJ Rep. 422.

[280] Chow 2021, 481.

the ocean, ocean species and organisms residing therein and humans. When plastic debris gets into ocean and as they degrade, they continue to emit greenhouse gases indefinitely thereby contributing to the climate change crisis.[281] There also exists a direct impact of plastic litter on ocean species and organisms. In 2019, the National Geographic reported the death of a young whale in the Philippines as a result of plastic consumption. According to the report, the whale died because of the plastic in its stomach.[282] Similarly, the previous year, a dead sperm whale washed ashore in a national park in Indonesia. 115 plastic cups and two flip-flops were found in its stomach.[283]

Plastic pollution in the oceans affects humans through a number of pathways: first, through their interlinkage with climate change. Second, through consumption of marine animals that have consumed plastic. Third, albeit to a minor extent (which could become major over time), death of ocean species caused by ocean plastic pollution is competing with fishing.[284] The impact of this on endangered species is not yet well-documented and requires further research but it is already established that endangered species like the

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[281] Ford et al. (2022), 3.

[282] National Geographic, 'This young whale died with 88 pounds of plastic in its stomach', retrieved from https://www.nationalgeographic.com/environment/article/whale-dies-88-pounds-plastic-philippines accessed on 11 March 2024.

[283] Mirror, 'Sperm whale found dead with 115 plastic cups and two flip-flops in stomach' retrieved from https://www.mirror.co.uk/news/world-news/sperm-whale-found-dead-115-13620191 accessed on 16 March 2024.

[284] Palmer, J. Mark, 'Plastic Pollution & Plastic Fishing Gear Kill and Injure Marine Mammals', (2022) International Marine Mammal Project. Retrieved from https://savedolphins.eii.org/news/plastic-pollution-plastic-fishing-gear-kill-and-injure-marine-mammals accessed on 17 March 2024.

Hawaiian monk seals and the Pacific loggerhead sea turtles are among the endangered species of sea creatures severely affected by ocean plastic pollution.[285]

Third, it can be argued that while the principle of state responsibility and liability for environmental damages is now established customary international law, the same principle, when applied to ocean plastic pollution may not enjoy similar status in international law. There are non-existent cases relating to ocean plastic pollution as there has been no State claiming injury. Fourth, apportioning remedies and compensation is a possible challenge where States are to be held responsible for damages caused to the ocean. It is not clear who will be compensated when sea animals and species suffer from the deleterious effect of climate change, and this could be a challenge. Therefore, no State may be entitled to demand satisfaction and who is responsible for compensation may also raise a fresh debate.[286] This is similarly a challenge in respect of climate change and the basis for Vanuatu's request of the ICJ's advisory opinion on the obligations of States with respect to climate change.[287] Vanuatu's request is an indication that the state responsibility and liability for climate change is not established in international law. Ocean plastic pollution faces similar challenge.

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[285] Center for Biological Diversity, 'Ocean Plastics Pollution', retrieved from https://www.biologicaldiversity.org/campaigns/ocean_plastics/#:~:text=Thousands%20of%20seabirds%20and%20sea,get%20caught%20in%20plastic%20litter accessed on 11 March 2024.

[286] Tanaka 2023, 262.

[287] International Court of Justice, 'Request for Advisory Opinion: Obligations of States in respect of climate change', retrieved from https://www.icj-cij.org/sites/default/files/case-related/187/187-20230412-app-01-00-en.pdf accessed on 11 March 2024.

5.6 The Prospects of State Responsibility and Liability in a New International Treaty on Plastic

This research acknowledges that work is currently ongoing in drafting an international treaty that would end the environmental challenges caused by plastic waste.[288] Having an international MEA that addresses ocean plastic pollution in a decisive manner by imposing upon States the responsibility for (i) protecting the ocean from plastic pollution and (ii) mitigating the damages caused by plastic pollution to the ocean will go a long way in instilling ocean protection from plastic pollution in States' practice. The reason for this is that in the absence of an international customary law obligation to protect the ocean from plastic pollution, treaty law can come to the rescue. The advantage of treaties in international law is pursuant to the principle of *pacta sunt servanda* which provides that parties to an agreement must act in good faith and keep to the terms of the agreement.[289]

The latest text of the Zero Draft Treaty on Plastic issued in December 2023,[290] imposes obligations on States for the protection of the marine environment from plastic pollution. In addition, the draft treaty contains a remarkable provision on the mitigation of existing marine plastic pollution,[291] an aspect that has received no attention in any other treaty. In

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[288] United Nations Environment Programme, 'UNEA Resolution 5/14 entitled "End plastic pollution: Towards an international legally binding instrument" 10 May 2022 UNEP/PP/OEWG/1/INF/1 retrieved from https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG_PP_1_INF_1_UNEA%20resolution.pdf accessed on 10 April 2024.

[289] Article 26, Vienna Convention on the Law of the Treaties.

[290] IISD, 'Ahead of INC-4, UNEP Publishes Revised Draft Text of Plastic Treaty', retrieved from https://sdg.iisd.org/news/ahead-of-inc-4-unep-publishes-revised-draft-text-of-plastic-treaty/ accessed on 04 March 2024.

[291] Revised Zero Draft Text on Plastics, Art. 10.

its current form, the draft text acknowledges that the current level of pollution of the marine environment by plastics is unsustainable and something needs to be done to 'clean up' the ocean to prevent further damage to the ocean's ecosystems beyond national jurisdictions. This provision, if left in the final draft and couched in definitive terms, will be a positive development in ocean governance and the management of ocean plastic pollution.

5.7 Recommendations

The constraints discussed in the previous sections notwithstanding, the international legal principle of state responsibility and liability is a good starting point in addressing the problem of ocean plastic pollution. States have the inherent obligation to manage their municipal waste, including plastic waste, using best international practices, within the confines of their jurisdictions. And since plastic waste that spreads outside the State's jurisdiction has the potential of constituting harm to the environment of another State, States also have the duty to prevent this waste from causing harm to the environment of a third State, the difficulty of proofing the causal relationship notwithstanding. Yoshifumi Tanaka, in his article, 'Shared State Responsibility for Land-Based Marine Plastic Pollution' gave three recommendations on how to strengthen the relative weakness inherent in the principle of state responsibility and liability in preventing ocean plastic pollution viz strengthening the due diligence obligation in international law, strengthening compliance procedures for environmental norms, and strengthening the interlink between the protection of the marine environment and international watercourses.[292]

Yoshifumi explains that first, the obligation of due diligence in marine plastic pollution prevention is not a well-covered topic in international law and therefore, there is the need to ensure that the factors necessary to properly consider this obligation are well set out. In

[292] Tanaka 2023, 262-264.

this regard, it is important to create an interlink between a due diligence obligation and best environmental practices and/or best available techniques as well as combine due diligence in environmental obligations with a clear procedural rule such as the obligation to conduct an environmental impact assessment (EIA). Second, compliance procedures for environmental norms in respect of prevention of marine plastic pollution needs to be strengthened. This would go a long way in ensuring effective compliance with *erga omnes partes* encapsulated in MEAs. Third, as it stands, there is a weak link between the protection of the marine environment and international watercourses. This interlinkage needs to be strengthened. Currently, this is reflected in the UN Convention on the Law of the Non-Navigational Uses of International Watercourses as well as the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes.[293]

In addition to the above recommendations, this research work will go a step further and recommend the following:

5.7.1 A State-Responsibility-and-Liability-Centric New Treaty on Plastic

A good place to start to address the problem of ocean plastic pollution is to establish in clear terms, the responsibility and liability of States regarding ocean plastic pollution in a new treaty on plastic. This is because of two major reasons: (i) current international MEAs have proved incapable of resolving the challenge of ocean plastic pollution, and (ii) customary international law does not express address the issue of ocean plastic pollution. A new treaty therefore presents a new chance at a clean sheet and for States to agree on

[293] 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses UN Doc. A/51/869 adopted 21 May 1997 and entered into force 17 August 2014; 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, UNTS Vol. 1936 p. 269 adopted 17 March 1992 and entered into force 6 October 1996.

terms and conditions that adequately take into consideration their common but different responsibilities. The UNEP is making progress in drafting a new treaty on plastic having released a revised draft zero treaty on plastic in December 2023. The aim of the UNEP is to have a plastic treaty finalised before the end of 2024.[294] It is important for drafters of the new treaty to therefore bear in mind the importance of the principle of state responsibility and liability in the mitigation of ocean plastic pollution. The new treaty must state in clear terms that States are responsible first, for the management of the ocean as a common resource of humanity and are liable, jointly, and severally, for damages to the ocean and its resident species and organisms.

Liability will also arise, jointly and severally, for the harm caused to human health resulting from human consumption of plastics. In its current state, the rules regulating marine plastic pollution under existing treaties remain general and abstract.[295] This is also the case with the obligation of states to protect the marine environment from plastic pollution. Thus, entrenching this obligation in a new treaty will put to rest the challenge of not having a clear-cut obligation to mitigate marine plastic pollution as it will be an obligation binding on States based off their own consent. This proposition is based off the fact *pact sunt servanda,* one the oldest rules of international law, which is to the effect that a treaty is binding upon the parties to it and must be performed by them in good faith. This is also

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[294] United Nations Environment Programme, 'UNEA Resolution 5/14 entitled "End plastic pollution: Towards an international legally binding instrument" 10 May 2022 UNEP/PP/OEWG/1/INF/1 retrieved from https://wedocs.unep.org/bitstream/handle/20.500.11822/39812/OEWG_PP_1_INF_1_UNEA%20resolution.pdf accessed on 10 April 2024.

[295] Tanaka 2023, 262-264.

reflected in the Vienna Convention on the Law of Treaties which contains the provision that every treaty entered into by a State is binding upon that State as long as it is in force.[296]

5.7.2 Development of the Erga Omnes Principle by the ICJ

It can be argued that due to the ocean being a common resource, obligations arising therefrom would be obligations owed to the international community since the common resource in this case is one owned by all. The concept of *erga omnes* which first appeared in the decision of the ICJ in the Barcelona Traction case is to the effect that there are some responsibilities owed by States to the international community. Obligations such as the outlawing of acts of aggression and of genocide fall into the category of obligations owed to the international community.[297] Though not without criticism, the concept has continued to gain more traction since its first pronouncement by the ICJ in the Barcelona Traction case.[298] If applied to the problem of ocean plastic pollution, it is the position of this research work that the concept will go a long way in (i) making States conscious of the need to protect the ocean from the impact of plastic waste and (ii) imposing on States the obligation to mitigate the damages caused to the ocean by plastic waste. Moreover, the duty is on States to either bring an action before the ICJ claiming a breach of rights thereby forcing the hand of the ICJ to expand on the *erga omnes* doctrine or request for the advisory opinion of the ICJ just as in the Vanuatu request for advisory opinion.

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[296] Vienna Convention on the Law of Treaties, Art. 26.

[297] *Case Concerning the Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)* (Judgment) (1970) ICJ Rep. 32.

[298] Memeti and Nuhija 2013, 44.

5.7.3 Strengthening Enforcement Mechanism in a New Treaty on Plastic

Enforcement of obligations has often been regarded as a challenge in international environmental law. The reason is that the cost of imposing sanctions is high, and when imposed, sanctions are difficult to coordinate and often ineffective at accomplishing their goals.[299] According to Anu Bradford and Omri Ben-Shahar, rewards are also costly and domestically unpopular.[300] These challenges somewhat serve as a weakness to the successful implementation of international environmental law which is mostly reliant on soft laws and a plethora of legal principles. The absence of a strong enforcement regime could ultimately have an impact on State compliance. Although States generally tend to respect the principle of *pacta sunt servanda,* the risk of non-compliance remains as high as ever as evidenced by Russia's recent invasion of Ukraine. For instance, if a State chooses not to comply with the decision of the ICJ against it, enforcement may prove onerous. In addition, many treaties contain weak compliance and enforcement mechanisms.

The problem of enforcement is one of the critical points of the UNCLOS and a challenge to its effectiveness as despite its almost universal adoption, its provisions are not always complied with in practice.[301] Due to its inherent weakness of lack of enforceability, Kishore Vaangal describes the UNCLOS as akin to a code of conduct. According to the author, "when a regulation or for that matter a rule of law is unenforceable (in any situation and case and against any violating member state), it cannot be dubbed any other way but the perfunctory itemization of a code of conduct".[302] It is therefore important that the new treaty on plastic avoid the pitfalls and weaknesses of existing international MEAs on ocean governance and tackle the issue of enforcement in a firm and decisive manner. The new

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[299] Bradford and Ben-Shahar 2012, 375.

[300] Ibid.

[301] House of Lords 2022, 3.

[302] Vaangal 2022, 20.

treaty could utilise a number of enforcement mechanisms. For instance, the new treaty could set up an Ocean Penalty Fund where States that are in breach of their ocean environmental obligations will pay an imposed penalty. There is also the need to have an Ocean Cleanup Fund where States have been the largest contributors of plastic litter to the ocean will be made to pay an imposed sum towards the development of technology for ocean cleanup. The nature of ocean plastic pollution calls for the new treaty to have whistleblower provisions where a State can report a third State for breach of its ocean obligations. The Special Chamber for Environmental Matters established pursuant to Article 26(1) of the Statute of the ICJ will need to be reconstituted to entertain matters concerning breach of ocean obligations.

5.7.4 Strengthened Cooperation for Ocean Clean Up

Plastics have a lengthy lifespan, so lengthy that it will outlive most of us. Plastics have been found to have a lifespan of hundreds to thousands of years which is estimated to be far longer for plastics in deep sea and non-surface polar environments.[303] Beyond creating an obligation to terminate the continued pollution of the ocean by plastic litter, a new treaty needs to impose the obligation on States to cooperate on matters pertaining to ocean clean up. Cooperation in this dimension will include cooperating for beach cleanups as well as development of technology to remove plastics from the ocean. Private research is ongoing in this area that will require the funding and support of States to scale up. For instance, research was recently conducted on the effect of nanocluster-infused triple interpenetrating polymer network (IPN) hydrogel on the efficient removal of microplastics from water.[304] Not cleaning the ocean of current plastic debris goes against the inherent principle of sustainable development which is to the intent that current resources will be

[303] Barnes et al. 2009, 1985.

[304] Dutta, Misra and Bose 2024, 5188.

utilised to meet the needs of present generation without compromising the ability of future generations to meet their own needs. At the rate the ocean is polluted by plastics, certain ocean species may go into extinction and future generations may develop ill health from the consumption of ocean species that have plastic in their systems. State responsibility should therefore include the obligation for all States to cooperate for ocean cleanup for the purpose of mitigating marine plastic pollution.

5.8 Conclusion

This chapter has explored the main question of this research work: whether States have the responsibility to protect the marine environment from plastic pollution. In doing this, an academic excursion has been undertaken to consider three other salient sub-questions. The constraints of state responsibility and liability in resolving marine plastic pollution challenge notwithstanding, this age long established principle of customary international still stands at the important intersection between the current state of marine plastic pollution and having an ocean that meets the sustainable development needs of future generations.

"Plastic pollution-free world is not a choice but a commitment to life – a commitment to the next generation."

~ Amit Ray, *Indian Author*.

6 Conclusion

In the past five chapters of this research work, we have taken an academic excursion and explored the interlinkage between the principle of state responsibility and liability and the successful mitigation of ocean plastic pollution. The problem of ocean plastic pollution is such that the quantum of plastic litter in the ocean continues to increase unabated and continues to negatively impact on the carbon sink capability of the ocean. Not only this, but plastic litter in the ocean also negatively impacts the ocean species which get entangled in plastic litter or consume plastic and either die as a result or pass it on to humans when they are ingested. The effect of plastic on human health when consumed is still undergoing further research. But one thing is clear from existing research on this subject – plastics have a negative impact on human health. Since most plastics that end up in the ocean flow from within the jurisdiction of States, what then is the responsibility of States under international environmental law to not only protect and preserve the ocean from the negative impact of plastic pollution but to mitigate the damages caused to the ocean by plastic litter? This is the crux of the discussion of this research work.

International customary law has established that States have a responsibility to protect the environment beyond their national jurisdiction from the deleterious impact of activities carried on within their own jurisdiction. Nonetheless, this responsibility needs to be explained in its proper context. Historically, the responsibility to protect the environment beyond the national jurisdiction arose out of the bilateral relationship between States – the actions of one State affecting the environment of another State. The *Trail Smelter arbitration* was the first case establishing this principle in international law. Ocean plastic pollution throws up a different kind of challenge. The ocean is regarded as a common resource

belonging to the international community. Although States have agreed under the international MEAs on obligations regarding the ocean, there is no obligation arising under customary international law for the protection and preservation of the ocean from pollution.

International MEAs on ocean governance have their own weaknesses. They are not binding on States who are not parties to these MEAs and even the best of them does not comprehensively address the pollution of the ocean from plastic waste. The ICJ presented an opportunity to establish that a State owes responsibility to the international community in its judgement in the *Barcelona Traction case* where it made reference to the *erga omnes* principle – that States have a responsibility to the international community where the resource in question is a common resource owned by all. The ICJ would have been presented with another opportunity to pronounce on the responsibility of States to the international community in the *Nuclear Tests case*[305] which concerned the protest by Australia and New Zealand against a proposed series of underground nuclear weapons test. France terminated its proposed project before the ICJ could make its ruling and the ICJ therefore had no need to rule on the merits of the case.

International MEAs also do not also adequately provide for protection of the ocean from plastic pollution. Of all the regulatory instruments examined, the Basel Convention and the UNCLOS are distinctive in that while the former is progressive and has been amended to bring plastic waste within its purview, this is limited to the deliberate transboundary movement and transportation of plastic waste. The UNCLOS on the other hand, addresses pollution of the ocean, with no exclusion on the type and source and is regarded as the most comprehensive regulatory instrument governing the ocean. All the regulatory

[305] *Nuclear Tests (New Zealand v. France)* (Judgment) (1974) ICJ Rep. 457.

instruments examined have one similar shortcoming – they do not directly address the pollution of the ocean by plastic.

Nonetheless, inherent in the principle of state responsibility and liability are certain environmental obligations such as: the obligation to protect and preserve the environment, the obligation not to cause transboundary harm, and the obligation to make reparation. To resolve the problem of ocean plastic pollution, it is the proposal, as a starting point, that the principle of state responsibility and liability should be entrenched in a new treaty on plastic imposing responsibility on States for the protection of the ocean from plastic litter and the duty to mitigate the damages caused by ocean plastic litter. This should also be strengthened by the development of the *erga omnes* doctrine by the ICJ and classifying the obligations to protect and preserve the ocean as an *erga omnes.* Enforcement mechanisms also need to be strengthened in a new treaty on plastic such that States are liable for mitigation of the damages caused to the ocean and ocean species. This will be in addition to a strengthened cooperation for ocean clean up.

This research work has expanded the frontiers of knowledge by arguing that the principle of state responsibility and liability can also be applied to the mitigation of ocean plastic pollution as the sustainable management of the ocean is not only limited to protecting the ocean from present and future damages but also taking steps to undo and correct, to every extent possible, the damages already done to the ocean environment. Moreover, state responsibility and liability on the mitigation of plastic pollution in the ocean is not an area that has received much attention perhaps because of the relative difficulty of answering questions such as “who will compensation be paid to?” Nonetheless, it is an area worthy of further research especially because of its real-life significance not only for this present generation but also for the future generations. For instance, the *erga omnes* doctrine and its role in ocean plastic pollution requires further study.

States have proposed to have a universally binding agreement by the end of 2024 to address this bane with the aim of placing a ban on the production and use of single -use plastics. This is no doubt a step in the right direction but considering the lifespan of plastics after they are discarded in the environment, the proposal is akin to *beheading the hydra* - when one head is cut off, two more grow in its place. Putting an end to the production of single-use plastic does nothing to mitigate the plastic pollution in the ocean. Thus, without a firm and definite approach to mitigating ocean plastic pollution utilizing the principle of state responsibility and liability, the problem that will be caused by plastic litter will remain with us for a very long time.

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