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17 June 2022

The Basel Convention as an Evolving Treaty Regime: Implications of the Ban Amendment and Plastic Waste Amendment

（進化する条約制度としてのバーゼル条約：

輸出禁止改正とプラスチックごみ改正の影響）

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SUMMARY

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals adopted in 1989 and entered into force in 1992 is currently the only international environmental regime addressing the issue of transboundary movement of hazardous and other wastes, and its environmentally sound management. The Convention initially opted for 'restriction' over 'prohibition' by establishing a regulatory scheme. This scheme allows any transboundary movement of hazardous and other wastes to proceed only when such movements adhere to the rules of the Convention under the Prior Informed Consent (PIC) mechanism and the observance of the environmentally sound management. It also provides a limited ban, prohibiting any transboundary movement between Party and non-Party to the Convention. However, Article 11 provides an exception for such prohibition if there is an agreement or arrangement between a Party and non-Party to the Convention which stipulates provisions that are "not less environmentally sound" than the standard of the Basel Convention.

The emphasis on the environmentally sound management (ESM) principle can also be found during the whole negotiation process of the Convention and in many of the core provisions of the Convention, such as in Article 4 paragraph 2(b) and 2(d), Article 4 paragraph 8, and Article 4 paragraph 10, highlighting its importance as the original aim underpinning the Basel Convention. During the negotiation process, UNEP as the convenor reiterated times and again on the initial aim of the convention was to manage the issue of hazardous waste in an environmentally sound manner, rather than only addressing the transportation of those wastes. The total ban proposal, which suggests a prohibition of transboundary movement of hazardous wastes from developed to developing countries was also argued on the ground that developing countries cannot manage those waste imports in an environmentally sound manner. Thus, the reading of environmentally sound management

(ESM) as the foundational principle of the Basel Convention regime has important theoretical implications for the argument of this thesis. The foundational principle of ESM under the Basel Convention regime needs to be interpreted as comprising of two main elements: 1) the minimization of waste generation and transboundary movement; and 2) the regulatory scheme of transboundary movement based on PIC mechanism. The inclusion of ESM principle was initially intended to minimize waste generation and transboundary movement, but has since emphasized as the enabling standards for the regulatory scheme of the Basel Convention. The Ban Amendment and the Plastic Waste Amendment has subsequently re-focused the emphasis on minimization of waste, arguably strengthening the environmentally sound management as the foundational principle.

The Convention adopted the Ban Amendment through Decision BC-III/1 in 1995 and entered into force in 5 December 2019 which essentially ban any movement from developed countries to developing countries without any exception, referred in this study as the North-South total ban. The amendment will now prohibit any transboundary movement of hazardous wastes from countries listed on Annex VII, considered as developed countries, to non-Annex VII countries, both for recycling and final disposal. Concurrently, during the Fourteenth Conference of Parties (COP) held in 2019, the Parties to the Convention also adopted decision BC-14/12 which amended Annex II of the Basel Convention to include several types of plastic waste considered as harmful and need to be controlled under its scope. This decision, commonly addressed as the "Plastic Waste Amendment", specifies new categories of plastic waste that will be subject to the Convention's regulatory scheme.

This study examines how and to what extent those amendments bring changes to the operationalization of the Basel Convention by employing the multidisciplinary approach of international relations and international legal studies specifically for the concept of 'regime change'. For general international relations scholars, a regime change might continue until it disappears and another taking its place, but this study, integrating a legal analysis, corroborates a different future path of the Basel Convention regime. As such, this study

proposes a *regime evolution* in explaining the Basel Convention regime, described as significant alterations in a regime's structures of rights and rules and its operationalization leading to the changing patterns of behaviors without altering the regime's object and purpose. By doing so, this study offers a fresh perspective in understanding the Basel Convention, an international treaty regime scarcely examined by both international relations and international legal scholars.

In essence, this study argues that the Ban Amendment changes the Basel Convention's rules and operationalization in several aspects. First, the change in rules can be observed from the new obligation to prohibit for Annex VII countries who have ratified the Ban Amendment. Ratification of Ban amendment by Annex VII countries will not change their entitlement under the Convention to import hazardous wastes but will impose a new obligation upon them not to export those wastes to the developing, non-Annex VII Parties. For example, competent authorities in exporting states are now required to observe whether the proposed State of Import is included in Annex VII or not, which was previously not required and they may immediately send the notification of proposed transboundary movement to the potential State of Import and in some cases to include State of Transit.

Second, changes in operation of the Basel Convention can be observed from three aspects: it establishes a North-South total ban mechanism, in which any transboundary movement from Annex VII countries to non-Annex VII is now prohibited without any exception. This modification of the Basel Convention's operationalization might have distinctly shaped the practices and behavior of states under the Convention, both for Annex VII and non-Annex VII countries. It establishes a constellation of relationship between member states: 1) between Parties to both the Basel Convention and its Ban Amendment; 2) when the proposed transboundary movement of hazardous waste is between a ratifying party to the Ban Amendment and a non-ratifying party of the Ban Amendment; and 3) between a ratifying party to Ban Amendment and a non-party to the Basel Convention. For example, Annex VII countries who have ratified the Ban Amendment will now either have

to find other Annex VII Parties to send their hazardous waste or to dispose those waste in their own country. Another changes in operation relates to the fact that the entry into force of Ban Amendment established Annex VII. Consequently, there is a change in the approach to transboundary movement of hazardous waste: from a bilateral and individualized contract between an export state and an import state on the movement of a particular waste, to a 'catch-all' approach based on the country groupings based on Annex VII countries and non-Annex II countries. This modification in the operationalization of the Basel Convention might provide a mechanism less prone to error or misconduct, thus providing incentives for achieving the environmentally sound management.

Third, the Ban Amendment introduced the concept of high-risk in transboundary movement of hazardous waste from developed countries to developing countries, and by doing so, this study argues that ESM principle under the Basel Convention has indeed evolved to be interpreted having stricter standards. While Ban Amendment only applies to Parties who ratify it and consequently the applicability of this interpretation is currently limited, this thesis argues that it might become a new general norm under the Convention. It is also argued that a stricter interpretation of ESM principle after the Ban Amendment will strengthen its constitutive elements of minimization of waste generation and transboundary movement. For example, the prevention element under the ESM will now need to be interpreted in light of the recognition that there is a high risk in hazardous waste being exported to developing countries as not constituting environmentally sound management. This new recognition under the Basel Convention regime indicates a risk of significant harm to the environment as well as to the human health potentially caused by the export of hazardous waste to developing countries.

Fourth, the stricter interpretation of the ESM principle after the Ban Amendment will also lead to a stricter interpretation of Article 11 of the Basel Convention regarding bilateral and regional agreements with non-Parties. Article 11 provides "no-less environmentally sound" standards of ESM for those bilateral and regional agreements. This stricter

interpretation of ESM may arguably apply to any transboundary movement which involves at least one party of the Convention ratifying the Ban Amendment.

Those significant changes in the operationalization of the Basel Convention through the Ban Amendment have affected its foundational principle of environmentally sound management, by shifting the focus in the elements of the principle from regulatory scheme in order to maintain the practices of transboundary movement of hazardous waste to the prioritization of prevention and minimization of waste generation and transboundary movement. This shift of focus has in fact strengthened the ESM as the foundational principle of the Basel Convention regime, since observance of waste hierarchy which promotes waste minimization before any transboundary movement and disposal is crucial for ESM principle.

While the changes brought about by the Ban Amendments are particularly limited to the operationalization of the Basel Convention for hazardous wastes, the adoption and entry into force of Plastic Waste Amendment focuses more on the changes in the operationalization of the Basel Convention for other wastes. Unlike hazardous waste streams, deliberations on plastic waste have heightened their urgency not because of its discernible hazardous properties but rather of its massive volume and its mismanagement globally. The volume and mismanagement of plastic waste globally have subsequently led to the increasing awareness of the risk of generation of plastic waste. Basel Convention's regulatory scheme does not directly applicable to this waste stream, yet addressing the issue is becoming pivotal to ascertain Basel Convention's adaptability in facing emerging waste issues. This study refers to this situation faced by the Basel Convention as the 'relevancy dilemma'. Annex II of the Convention which uniquely addresses 'waste requiring special consideration' provides the necessary means for the Basel Convention in addressing the issue, since plastic waste generally does not fall within the 'traditional' definition of 'hazardous' under the Convention.

The inclusion of plastic wastes into Annex II exhibited that Parties essentially agreed to apply the Basel Convention's regulatory scheme for any transboundary movement of

plastic wastes. It follows a 'reverse-logic' from the commonly applied approach on the inclusion of hazardous wastes under the Convention: instead of the common practice of establishing a waste as considered hazardous because it constitutes a specific hazardous waste streams or having constituent of Annex I to exhibit Annex III characteristics, plastic waste inclusion under the Convention is because its widespread mismanagement having potential risks on a global scale. The broadening scope thereby serves as an incentive for the applicability of environmentally sound management principle.

Another changes in the operationalization relates to the requirements of 'almost free from contamination' and 'almost exclusively' introduced by the Plastic Waste Amendment. The requirement stipulates an emerging obligation of waste separation, in particular for plastic wastes proposed for transboundary movement. This obligation adds a new dimension to the traditional definition of waste life cycle to include separation before any proposed transboundary movement in order for such movement to be considered as observing environmentally sound management principle. Since observance of waste life cycle is important for environmentally sound management, this stricter standard of what constitutes environmentally sound management of plastic wastes might actually provide incentives for minimization of waste generation and subsequently its transboundary movement, as evidenced by the recent drop in plastic wastes exports following China's National Sword Policy in 2017.

In conclusion, this study argues that the Ban Amendment and the Plastic Waste Amendment have significantly changed the operationalization of the Basel Convention to a point it can be considered as exhibiting evolving characteristics. The significant changes do not change the original aim of the Convention as the convergence of expectations of actors within a regime. As such, it does not correlate with the general conception of regime change which suggests that any significant change to the regime's structures of right and rules and its operationalization leads to either regime's dissolution or a new regime to emerge. Regime evolution, as an alternative, argues that the significant changes in the

operationalization of the Basel Convention has strengthened the environmentally sound management instead, by re-focusing the emphasis to the minimization of waste generation and transboundary movement from the regulatory scheme of hazardous and other wastes.

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ACRONYMS

ACP	African, Caribbean, and Pacific states
BAN	Basel Action Network
COP	Conference of Parties
CPR	Continuous Plankton Recorder
CBD	Convention on Biological Diversity
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CLI	Country-Led Initiative
EAP	Environmental Action Program
EIA	Environmental Impact Assessment
ESM	Environmentally Sound Management
EC	European Community
EEC	European Economic Community
EPR	Extended Producer's Responsibility
EU	European Union
GATT	General Agreement on Tariffs and Trade
GPML	Global Partnership on Marine Litter
GC	Governing Council (of the UNEP)
HSWA	Hazardous and Solid Waste Amendments
ISRI	Industry for Scrap and Recycling Industries
ICJ	International Court of Justice

IPEN	International Pollutants Elimination Network
ISO	International Standard Organization
ITLOS	International Tribunal on the Law of the Sea
JUSCANZ	Japan, United States, Canada, Australia, and New Zealand
LDC	London Dumping Convention
LRTAP	Long Range Transboundary Air Pollution Convention
MARPOL	International Convention for the Prevention of Pollution from Ships
MOP	Meeting of the Parties
MEA	Multilateral Environmental Agreement
MMT	Million Metric Tonnes
MNC	Multinational Corporation
NAM	Non-Aligned Movement
NGO	Non-Governmental Organization
NIMBY	Not in My Backyard
OEWG	Open Ended Working Group (under the Basel Convention)
OECD	Organization of Economic Cooperation and Development
PCIJ	Permanent Court of International Justice
POPs	Persistent Organic Pollutants
PE	Polyethylene
PET	Polyethylene Terephthalate
PP	Polypropylene
PVC	Polyvinyl chloride

PIC	Prior Informed Consent
RCRA	Resource Conservation and Recovery Act (United States of America)
TEG	Technical Expert Group (of the Basel Convention)
TWG	Technical Working Group (of the Basel Convention)
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
VCLT	Vienna Convention on the Law of Treaties
WEEE	Waste of Electronic and Electrical Equipment
WG	Working Group
WTO	World Trade Organization

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INTRODUCTION

This study examines how the operationalization of the Basel Convention as a treaty regime has evolved through the two amendments yet still founded on its original aim of achieving environmentally sound management of hazardous wastes and other wastes. By going through such evolution, the Basel Convention has exhibited its evolutionary character and was further strengthened as a treaty regime. It follows the argument that significant changes in a regime do not necessarily lead to undesirable outcomes such as the demise of a regime or a new regime emerges. Instead, as exhibited by the Basel Convention, significant changes might lead to the strengthening of the regime, provided that the original aim serving as the actors' convergence of expectations remain.

This study is the first examination of the implications of the two important amendments under the Basel Convention over its 30-year life span, arguing that those amendments have changed the operationalization of the Basel Convention regime yet still firmly grounded on its original and enduring foundational principle of Environmentally Sound Management (ESM) of hazardous wastes. In order to substantiate this argument, this study outlines the Basel Convention as an international environmental regime addressing the issue of transboundary movement of hazardous waste, both from international relations and international law perspective. It will then establish several key terms, such as "regulatory scheme", the "restrictive" and "prohibitive" nature of the regulatory scheme, the difference between "limited ban" and "total ban" concept, to characterize the operationalization of the Basel Convention regime, so as to offer a more complete picture on how the Basel Convention as an international environmental regime operates and, indeed, "evolved" through two important amendments under the Basel Convention.

The Problems of Hazardous Wastes in Historical Context

Illegal transboundary movements of wastes, especially those considered as hazardous are drawing attention again in recent years, with cases similar with the ones in Indonesia, the Philippines, and Tunisia surged in numbers.[1] Reports from WasteForce indicate that between January 2018 and November 2020 alone they found 136 cases of either illegal transfer or illegal dumping of wastes, with more that 70% of those cases comprise of hazardous waste, plastic waste, electronic waste, household waste, medical waste, and shipbreaking waste.[2] European Union (EU), the United States and Canada, Japan and Australia have been reported as the main exporters while African countries (Ivory Coast, Ghana, Nigeria, Togo and Senegal) and Asian countries (China, Hong Kong, Indonesia, India, Malaysia and Vietnam) become the main destinations for those movements.[3]

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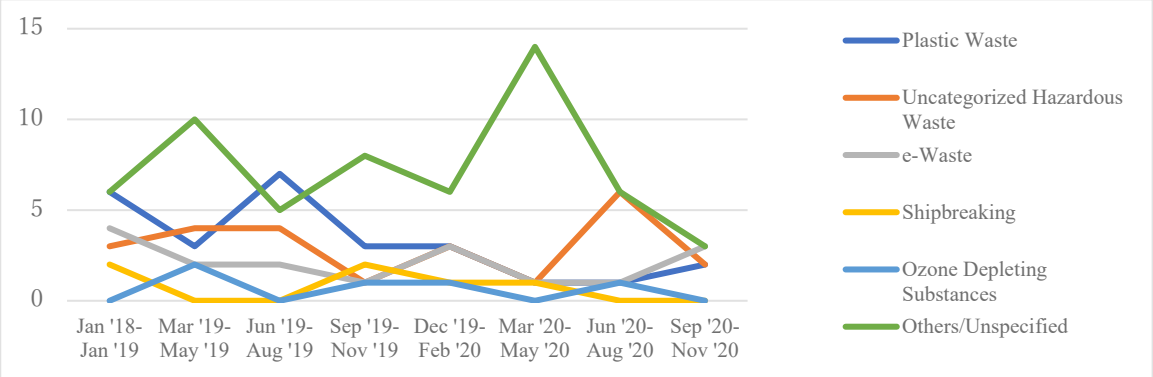
[1] See e.g., Kiki Siregar, *"My House is Full of Garbage": In West Java, Imported Waste Worsens Living Conditions of Villagers*, CNA, https://www.channelnewsasia.com/news/asia/indonesia-imported-waste-foreign-bekasi-burangkeng-west-java-11822250 (last visited Mar. 22, 2021); Nexus3, *PRESS RELEASE: Environmental Groups Decry Indonesian Waste Chaos Call for Strict Ban on Waste Import*, NEXUS3/BALIFOKUS, https://www.nexus3foundation.org/single-post/2019/11/05/environmental-groups-decry-indonesian-waste-chaos-call-for-strict-ban-on-waste-imports (last visited Mar. 22, 2021); Greenpeace, *Southeast Asia's Struggle Against the Plastic Waste Trade: A Policy Brief for ASEAN Member States* 19 (Greenpeace 2019); Basten Gokkon, *Indonesia Re-Exporting Illegal Waste to Other Countries, Report Finds*, MONGABAY ENVIRONMENTAL NEWS, https://news.mongabay.com/2019/11/indonesia-waste-plastic-export-import-illegal/ (last visited Mar. 22, 2021); BAN, *Global Waste Shell Game: "Returned" Illegal Waste Shipments from U.S., Diverted from Indonesia to Other Asian Countries*, BASEL ACTION NETWORK, https://www.ban.org/news/2019/10/28/global-waste-shell-game-returned-illegal-waste-shipments-from-us-diverted-from-indonesia-to-other-asian-countries (last visited Mar. 22, 2021).

[2] WasteForce was a consortium project led by The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and includes UNEP and Basel Convention Regional Centre in several regions. See WasteForce, *WasteForce Crime Alert Overview: January 2018-January 2020* (Jan. 2020); WasteForce, *WasteForce Crime Alert #5: December- February 2020* (Feb. 2020); WasteForce, *WasteForce Crime Alert #6: March- May 2020* (May 2020); WasteForce, *WasteForce Crime Alert #7: June-Aug 2020* (Aug. 2020); WasteForce, WasteForce Crime Alert #8: September - November 2020 (Nov. 30, 2020).

[3] UNEP is also refocusing their attention on this phenomenon. Several reports have emerged and confirmed this tendency. See e.g., UNEP, The State of Knowledge of Crimes that have Serious Impacts on the Environment (2018); THE RISE OF ENVIRONMENTAL CRIME: A GROWING THREAT TO NATURAL RESOURCES, PEACE, DEVELOPMENT AND SECURITY (Christian Nellemann et al. eds., United Nations Environment Programme 2016); IEVA RUCEVSKA ET AL., WASTE CRIME - WASTE RISKS: GAPS IN MEETING THE GLOBAL WASTE CHALLENGE (United Nations Environment Programme and GRID-Arendal 2015).

Figure 1 Illegal Transboundary Waste Movements, January 2018-November 2020



Source: compiled from Waste Crime Alerts #1-#8, WASTEFORCE (last visited Apr. 21, 2022) https://www.wasteforceproject.eu/resources/publications/

For example, between 2013-2014, the Philippines received 103 containers loaded with over 2,400 tons of mixed waste, including contaminated municipal and hazardous wastes from Canada, regulated under the Basel Convention, and were falsely labeled as scrap plastics for recycling, a category not considered as hazardous and so not triggering the Basel Convention's control mechanism.[4] Canada initially refused to re-import the wastes, claiming that they could not legally compel importer company to return the shipment to Canada and instead suggested it should be processed in the Philippines.[5] Environmental organizations in the Philippines would later challenge Canada's argument by requesting a legal opinion from Pacific Center for Environmental Law and Litigation (CELL) which suggested that Canada may have violated its obligations under the Basel Convention.[6] After much diplomatic tension, 95 containers were later re-imported in 2019, five years after its discovery, while eight containers were reported missing.[7] Another case of illegal imports occurred in Indonesia, where scrap papers contaminated with rubbers and used diapers were found in 58 containers imported from The United States and Canada.

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[4] Pia Ranada, *Canada Wants Its Illegal Garbage "processed" in PH*, RAPPLER, https://www.rappler.com/nation/canada-ambassador-illegal-garbage-philippines (last visited Mar. 23, 2021).
[5] *Id.*
[6] CELL, *In the Matter of Canada's Violations of the Basel Convention: Legal Opinion* 25 (Pacific Center for Environmental Law and Litigation Apr. 2019).
[7] IPEN, *Banning Waste Imports Urged to Protect PH from Becoming a Garbage Bin for Other Countries*, IPEN, https://ipen.org/news/banning-waste-imports-urged-protect-ph-becoming-garbage-bin-other-countries (last visited Mar. 22, 2021).

While Indonesia and Canada are Parties to the Basel Convention, the United States, however, is not a party to the Basel Convention. In this case, the United States argued that it does not have sufficient domestic statutory authority to implement all of its provisions.[8] The Basel Convention requires that in the case of illegal transboundary movement of hazardous waste, the exporting country have the obligation to re-import those wastes (Article 9 paragraph 2(a)) or to ensure the disposal in accordance with the provisions of the Basel Convention, and all Parties concerned shall not oppose, hinder or prevent the return of those wastes to the State of export (Article 9 paragraph 2(b)). However, instead of returned to the United States and Canada as the exporting countries, it was found that the majority of the containers were re-exported to other countries such as India, Thailand, Vietnam, Mexico, the Netherlands, and Republic of Korea, violating Indonesia's and Canada's obligations under the Basel Convention. Another case of illegal traffic also happened when 292 containers full of mixed municipal waste, some of them characterized as hazardous, were dumped in Tunisia from Italy between May and June 2020.[9] The Italian authority were notified by Tunisian government on 9 December 2020, and, as of March 2021, has yet to re-import those wastes, again, in violation of the provision of Basel Convention.

These incidents have since prompted countries to tighten their border controls from incoming waste transport, particularly in the Global South. Furthermore, the increasing awareness of civil society on the risks of waste transports, developing countries' lack of proper capabilities to manage those wastes in an environmentally sound manner, and the disparity between waste generation and what can actually be managed, among others, have

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[8] United States Department of State, *Basel Convention on Hazardous Wastes*, UNITED STATES DEPARTMENT OF STATE, https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/basel-convention-on-hazardous-wastes/; See also Rebecca A. Kirby, *The Basel Convention and the Need for United States Implementation*, 24 GA. J. INT'L & COMP. L. 281 (1994–1995).

[9] IPEN, *Italian Company Caught Illegally Dumping Plastic and Other Municipal Waste in Tunisia*, IPEN, https://ipen.org/news/italian-company-caught-illegally-dumping-plastic-and-other-municipal-waste-tunisia (last visited Mar. 23, 2021).

provided countries with incentives to re-initiate a global discussion on a prohibition of 'North-South' transboundary movement of hazardous wastes. Some have argued that a global ban would be the only way to protect developing countries from receiving such transfers, since it would prevent cost-externalization practices of exporting hazardous wastes.[10] Others have also pointed out the practices of dirty recycling and sham recycling which could be addressed through a global ban.[11]

On the other hand, the transboundary movement of hazardous wastes from developed countries to developing countries, especially those destined for recycling, only constitute one-third of the global transboundary movement of hazardous waste.[12] Most of the transported hazardous wastes happened between developed countries,[13] and recent trends show that the 'South-South' hazardous wastes trades are increasing in numbers.[14] Many factors contribute to this trend, such as improving recycling facilities and technologies both in developed and developing countries, stricter regulation for a cleaner production and implementation for resource efficiency, and also increasing awareness for economic opportunity of waste management, all of which are in accordance with the concept of 'circular economy'.

The contrasting views between insufficient control and the need for a stricter global mechanism in protecting Global South on one hand, and the economic opportunities of

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[10] IPEN, *supra* note 7.
[11] See Jennifer Clapp, *The Toxic Waste Trade with Less-industrialised Countries: Economic Linkages and Political Alliances*, 15 THIRD WORLD QUARTERLY 505 (Sep. 1994); Greenpeace, *supra* note 1.
[12] This estimation was delivered during the Country-Led Initiative (CLI) under Basel Convention in 2009-2011. Note that national reporting under Basel Convention does not necessarily provide accurate numbers in reality. See *Indonesian-Swiss Country-Led Initiative (CLI) to Improve the Effectiveness of the Basel Convention, First Meeting 15 -17 June 2009, Report to the Expanded Bureau of the Basel Convention*, No. CLI/2009/R (Jun. 2009); Ministry of the Environment of Japan, *Analysis of Transboundary Movements of Hazardous Wastes and Other Wastes in Asia* (Mar. 2011).
[13] Jonathan Krueger, *The Basel Convention and the International Waste Trade in Hazardous Waste*, *in* YEARBOOK OF INTERNATIONAL COOPERATION ON ENVIRONMENT AND DEVELOPMENT 2001-2002, 43 (Olav Schram Stokke & Øystein B. Thommessen eds., Earthscan Publications 2001).
[14] Gary Gereffi, *Global Value Chains in a Post-Washington Consensus World*, 21 REVIEW OF INTERNATIONAL POLITICAL ECONOMY 9 (Routledge Jan. 2014); Josh Lepawsky, *Are We Living in a Post-Basel World?*, 47 AREA 7 (2015).

waste management such as the benefits of circular economy which promotes waste minimization through reduce reuse and recycle (3R) on the other hand, capture the essence of the contentious debates of the North-South ban under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal,[15] which celebrated its 30 years anniversary in 2019. Negotiated under the auspices of United Nations Environmental Programme (UNEP) in 1989 and entered into force in 1992, the Basel Convention is currently the only international environmental regime addressing the issue of transboundary movement of hazardous wastes and other wastes and its environmentally sound management.

The Basel Convention Regime in a Snapshot

The Convention initially opted for 'restriction' over 'prohibition' by establishing a regulatory scheme. This scheme only allows any transboundary movement of hazardous and other wastes to proceed only when such movements adhere to the rules of the Convention under the Prior Informed Consent (PIC) mechanism and the observance of the environmentally sound management. It also provides a limited ban, prohibiting any transboundary movement between Party and non-Party to the Convention. However, Article 11 provides an exception for such prohibition if there is an agreement or arrangement between a Party and non-Party to the Convention which stipulates provisions that are "not less environmentally sound" than the standard of the Basel Convention.

The emphasis on the environmentally sound management (ESM) principle can also be found during the whole negotiation process of the Convention and in many of the core provisions of the Convention, such as in Article 4 paragraph 2(b) and(d), Article 4 paragraph 8, and Article 4 paragraph 10, highlighting its importance as the original aim

[15] *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 1673 UNTS 57 (Mar. 1989), [hereinafter Basel Convention].

underpinning the Basel Convention. During the negotiation process, UNEP reiterated times and again on the initial aim of the convening was to manage the issue of hazardous waste in an environmentally sound manner, rather than only addressing the transportation of those wastes. The total ban proposal, which suggests a prohibition of transboundary movement of hazardous wastes from developed to developing countries was also argued on the ground that developing countries cannot manage those waste imports in an environmentally sound manner. Thus, the reading of environmentally sound management (ESM) as the foundational principle of the Basel Convention regime has important theoretical implications for the argument of this thesis. The foundational principle of ESM under the Basel Convention regime needs to be interpreted as comprising of two main elements: 1) the minimization of waste generation and transboundary movement; and 2) the regulatory scheme of transboundary movement based on PIC mechanism. Despite the earlier was what initially intended, the latter element has been emphasized since the adoption of the Basel Convention instead. The Ban Amendment and the Plastic Waste Amendment has subsequently re-focused the emphasis on minimization of waste, arguably strengthening the environmentally sound management as the foundational principle.

The Convention adopted the Ban Amendment through Decision BC-III/1 in 1995 and entered into force in 5 December 2019 which essentially ban any movement from developed countries to developing countries without any exception, referred in this study as the North-South total ban. The amendment will now prohibit any transboundary movement of hazardous wastes from countries listed on Annex VII, considered as developed countries, to non-Annex VII countries, both for recycling and final disposal. Concurrently, during the Fourteenth Conference of Parties (COP) held in 2019, the Parties to the Convention also adopted decision BC-14/12 which amended Annex II of the Basel Convention to include several types of plastic waste considered as harmful and need to be controlled under its scope. This decision, commonly addressed as the “Plastic Waste Amendment”, specifies new categories of plastic waste that will be subject to the

Convention's regulatory scheme.

The Structure of the Study

In light of these historical and factual developments, the arguments of study will be structured as follows.

Chapter 1 Section 1.1 provides a theoretical framework of this study into the evolution of treaty regimes, using the case of the Basel Convention. This study departs from a multidisciplinary approach of international relations study and international legal studies in conceptualizing regime change or regime transformation. However, this study branches out from the general arguments that significant changes in a regime would typically lead one regime disappearing and another taking its place, by proposing that significant changes in a regime might actually lead to the strengthening of the regime itself, provided that the original aim of the regime does not fundamentally change. This study refers to this type of regime change as regime evolution, defined as significant alterations in a regime's structures of rights and rules and its operationalization leading to the changing patterns of behaviors without altering the regime's foundational convergence of expectations.

Chapter 2 thoroughly examines the principle of Environmentally Sound Management (ESM) as the foundational principle which represents the aim of the Basel Convention treaty regime. This examination highlights the genesis of ESM as an international principle, the initial intention of integrating this principle to the Basel Convention and its operationalization both through treaty text and non-binding instruments adopted by the COP of the Basel Convention. Through such operationalization, this Chapter identifies two basic elements of the ESM principle: 1) minimization of generation and transboundary movement of hazardous waste; and 2) regulatory scheme. The first element focuses on the role of waste minimization principle while the second element

focuses on the strict control of regulatory scheme based on Prior Informed Consent (PIC). This chapter elaborates that while the operationalization of the Basel Convention originally focused on the regulatory element of ESM by allowing the transboundary movements of hazardous wastes under certain conditions, the environmentally sound management principle prescribes that waste minimization should take precedence. Specifically, this study argues that rediscovering the importance of waste minimization principle is a key in understanding the significance of the two amendments under the Basel Convention regime.

Chapter 3 is the highlight of this study, examining the extremely controversial Basel Ban Amendment adopted in 1995 and finally entered into force in 2019, as a part of the regime evolution of the Basel Convention. It argues that the Ban Amendment has changed the operationalization of the Basel Convention, from a regulatory to a partially prohibitive scheme, but still within the foundational aim of achieving ESM principle. In order to substantiate such argument, the chapter first identifies the characteristic of the Ban Amendment as the "North-South total ban", that is the banning of transboundary movement of hazardous waste from Annex VII countries (associated with Global North/developed countries) to non-Annex VII countries (associated with Global South/developing countries), and how it relates to the emerging regional and international norm of North-South ban which serves as an international expectation. This chapter then addresses four critical issues surrounding the Ban Amendment, namely (1) the issue relating to the interpretation of Article 17(5), a criteria for entering into force of the amendment; (2) the possibility of Article 11 on bilateral and multilateral agreements to circumvent Ban Amendment; (3) the issue of Annex VII that is the category of states that will need to prohibit the movement, and (4) the issue of wastes destined for recycling. These examinations provide a better context in analyzing the implications of the Ban Amendment to the operationalization of the Basel Convention regime.

Subsequently, Chapter 3 further argues what this study considers as the evolving operationalization of the Basel Convention. First, the change in rules can be observed in

the change from the previous implicit right to export to become an obligation to prohibit for Annex VII countries who have ratified the Ban Amendment. Ratification of Ban amendment by Annex VII countries will not change their entitlement under the Convention to import hazardous wastes but will impose a new obligation upon them not to export those wastes to the developing, non-Annex VII Parties. For example, competent authorities in member states are now required to observe whether the proposed State of Import is included in Annex VII or not, which was previously may immediately send the notification of proposed transboundary movement to the potential State of Import and in some cases to include State of Transit.

Second, changes in operation of the Basel Convention can be observed from three aspects: it establishes a North-South total ban mechanism, in which any transboundary movement from Annex VII countries to non-Annex VII is now prohibited without any exception. This modification of the Basel Convention's operationalization might have distinctly shaped the practices and behavior of states under the Convention, both for Annex VII and non-Annex VII countries. It establishes a constellation of relationship between member states: 1) between Parties to both the Basel Convention and its Ban Amendment; 2) when the proposed transboundary movement of hazardous waste is between a ratifying party to the Ban Amendment and a non-ratifying party of the Ban Amendment; and 3) between a ratifying party to Ban Amendment and a non-party to the Basel Convention. For example, Annex VII countries who have ratified the Ban Amendment will now either have to find other Annex VII Parties to send their hazardous waste or to dispose those waste in their own country. Another changes in operation relates to the fact that the entry into force of Ban Amendment has also legally activated Convention's Annex VII and consequently the new approach to transboundary movement of hazardous waste: that is from a bilateral and individualized relationship between a particular export state and a particular import state with regard to particular waste, to a 'catch-all' approach based on the country groupings based on Annex VII countries and non-Annex II countries. This modification in

the operationalization of the Basel Convention might provide a mechanism less prone to error or misconduct, thus providing incentives for achieving the environmentally sound management.

Third, the Ban Amendment introduced the concept of high-risk in transboundary movement of hazardous waste from developed countries to developing countries, and by doing so, this study argues that ESM principle under the Basel Convention has indeed evolved to be interpreted having stricter standards. While Ban Amendment only applies to Parties who ratify it and consequently the applicability of this interpretation is currently limited, this thesis argues that it might become a new general norm under the Convention. It is also argued that a stricter interpretation of ESM principle after the Ban Amendment will strengthen its constitutive element of minimization of waste generation and transboundary movement. For example, the prevention element under the ESM will now need to be interpreted in light of the recognition that there is a high risk in hazardous waste being exported to developing countries as not constituting environmentally sound management. This new recognition under the Basel Convention regime indicates a risk of significant harm to the environment as well as to the human health potentially caused by the export of hazardous waste to developing countries.

Fourth, the stricter interpretation of the ESM principle after the Ban Amendment will also lead to a stricter interpretation of Article 11 of the Basel Convention regarding bilateral and regional agreements with non-Parties. Article 11 provides "no-less environmentally sound" standards of ESM for those bilateral and regional agreements. This stricter interpretation of ESM may arguably apply to any transboundary movement which involves at least one party of the Convention ratifying the Ban Amendment.

Chapter 4 examines the newly adopted 2019 Plastic Waste Amendment and how it may have broadened the scope of Basel Convention. This chapter identifies a rather interesting evolution of the Basel Convention regime through this amendment because it amended a rarely-utilized Annex II which lists 'other waste'. By including plastic wastes

into Annex II, Parties essentially agreed to apply the Basel Convention's regulatory scheme for any transboundary movement of plastic wastes. The broadening scope thereby serves as an incentive for further applicability of environmentally sound management principle. Another changes in the operationalization relates to the requirements of 'almost free from contamination' and 'almost exclusively' introduced by the Plastic Waste Amendment. The requirement stipulates for an emerging obligation of waste separation, in particular for plastic wastes proposed for transboundary movement. This obligation adds a new dimension to the traditional definition of waste life cycle to include separation before any proposed transboundary movement. Since observance of waste life cycle is important for environmentally sound management, this stricter standard of what constitutes environmentally sound management of plastic wastes might actually provide incentives for minimization of waste generation and subsequently its transboundary movement, as evidenced by the recent drop in plastic wastes exports following China's National Sword Policy in 2017.

In the last chapter, this study concludes that the Ban Amendment and the Plastic Waste Amendment have significantly changed the operationalization of the Basel Convention to a point it can be considered as exhibiting evolving characteristics. The significant changes do not change the original aim of the Convention as the convergence of expectations of actors within the regime. As such, it does not correlate with the general conception of regime change which suggests that any significant change to the regime's structures of right and rules and its operationalization leads to either regime's dissolution or a new regime to emerge. Regime evolution, as an alternative, argues that the significant changes in the operationalization of the Basel Convention has strengthened the environmentally sound management instead, by re-focusing the emphasis to the minimization of waste generation and transboundary movement from the regulatory scheme of hazardous and other wastes. The study generally covers relevant developments from its negotiation process up until December 2021, approximately two year after the

entry into force of both amendments, and examines documents and study materials available during those times.

CHAPTER 1.

THE BASEL CONVENTION REGIME: ITS ORIGINAL AIM AND REGULATORY SCHEME

This chapter is intended to introduce the Basel Convention as an international environmental regime and its main features, including its original aim and regulatory scheme which will serve as the starting point for this thesis' exploration on the evolution of the Basel Convention regime. International relations' (IR) perspective on the concept of international regime will be employed in order to substantiate the main argument of this study: a treaty evolution as a change in its operationalization yet based on a continuing foundational aim and principle of the regime. In this regard, IR perspective offers insights into the dynamics of international regime, specifically the concept of 'international regime change'.[16] While there are already extensive studies done on international environmental regimes,[17] the Basel Convention has been rarely taken up as an example.[18] Moreover, the

[16] See e.g., Oran R. Young, *Regime Dynamics: The Rise and Fall of International Regimes*, 36 INTERNATIONAL ORGANIZATION 277 (1982); Charles Lipson, *The Transformation of Trade: The Sources and Effects of Regime Change*, 36 INTERNATIONAL ORGANIZATION 417 (1982); ROBERT O. KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY (Princeton University Press 1984); Stephan Haggard & Beth A. Simmons, *Theories of International Regimes*, 41 INTERNATIONAL ORGANIZATION 491 (Cambridge University Press 1987); ERNST B. HAAS, WHEN KNOWLEDGE IS POWER (University of California Press 1990); Beverly Crawford & Stefanie Lenway, *Decision Modes and International Regime Change: Western Collaboration on East-West Trade*, 37 WORLD POLITICS 375 (Cambridge University Press Apr. 1985).

[17] See e.g., SIMONE SCHIELE, EVOLUTION OF INTERNATIONAL ENVIRONMENTAL REGIMES: THE CASE OF CLIMATE CHANGE (Cambridge University Press 2014); THOMAS GEHRING, DYNAMIC INTERNATIONAL REGIMES: INSTITUTIONS FOR INTERNATIONAL ENVIRONMENTAL GOVERNANCE (Lang 1994); Shiro Hori, *The Evolution of International Environmental Regimes: Responding to the Difficulty of Effective Implementation in Developing Countries*, 25 THE WASEDA JOURNAL OF SOCIAL SCIENCE 113 (2015); HELMUT BREITMEIER ET AL., ANALYZING INTERNATIONAL ENVIRONMENTAL REGIMES: FROM CASE STUDY TO DATABASE (The MIT Press 2006); Oran R. Young, *The Politics of International Regime Formation: Managing Natural Resources and the Environment*, 43 INTERNATIONAL ORGANIZATION 349 (1989).

[18] Kummer's book published in 1995 remains the most extensive study on Basel Convention as a legal regime. See KATHARINA KUMMER, INTERNATIONAL MANAGEMENT OF HAZARDOUS WASTES: THE BASEL CONVENTION AND RELATED LEGAL RULES (Clarendon Press 1995); From IR's regime theory, Basel Convention has yet to be extensively studied. Cf. Kenji Kamigawara, *Comparative Typological Study of Change in Global Environmental Regimes*, 15 INT ENVIRON AGREEMENTS 179 (2015) (generally comparing changes in multiple international environmental regimes, including Basel Convention); Cristina A. Lucier & Brian J. Gareau, *From Waste to Resources? Interrogating 'Race to the Bottom' in the Global Environmental Governance of the Hazardous Waste Trade*, 21 JWSR No. 2, 495 (Aug. 2015) (examining Basel Convention

study of a regime evolution through treaty amendments involves both political and legal analysis of such amendments and their implications, requiring interdisciplinary approach. The previous legal analysis of the Basel Convention as well as their respective amendments in 1995 Ban Amendment and 2019 Plastic Waste Amendment addressed their legal implications but have not framed them through the concept of treaty regime evolution.[19] Thus, this study is the first of such interdisciplinary examination of the Basel Convention regime analyzing the political as well as legal implications of the two amendments so as to identify the nature of the Basel Convention regime evolution.

Subsequently, this chapter will explore the background behind the deliberation of the Basel Convention as an international environmental regime by elaborating the emerging issue of transboundary movement of hazardous wastes in the 1980s and the Convention's *travaux préparatoires*. Main features of the Basel Convention as an international environmental regime will also be elaborated in the subsequent part, focusing on the scope and general obligations established under the Convention. Two essential features of the Convention, namely the original aim of Basel Convention and the nature of regulatory scheme, will be further elaborated to serve as the basis for this study. In Chapters 3 and 4, it is argued that through the two amendments, although they have changed the operationalization of the Basel Convention regime, the changes have actually strengthened its original aim and the nature of its regulatory scheme.

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from "race to the bottom" concept).

[19] Cf. Yeeun Uhm, *Plastic Waste Trade in Southeast Asia after China's Import Ban: Implications of the New Basel Convention Amendment and Recommendations for the Future*, 57 CAL. W. L. REV. 1 (2020), (exploring the implications of Ban Amendment in Southeast Asia); Kenneth I. Ajibo, *Transboundary Hazardous Wastes and Environmental Justice: Implications for Economically Developing Countries*, 18 ENVIRONMENTAL LAW REVIEW 267 (Dec. 2016), (assessing the implications for developing countries through environmental justice principle); William Schneider, *The Basel Convention Ban on Hazardous Waste Exports: Paradigm of Efficacy or Exercise in Futility Notes*, 20 SUFFOLK TRANSNAT'L L. REV. 247 (1996), (arguing that the Ban Amendment arrived on the scene of international environmental law too underdeveloped to have any immediate or profound effect). Sabaa Ahmad Khan, *Clearly Hazardous, Obscurely Regulated: Lessons from the Basel Convention on Waste Trade*, 114 AJIL UNBOUND 200 (2020), (critiques on the legal ambiguity of Basel Convention, including Ban Amendment and Plastic Waste Amendment).

1.1 Treaty Regime Evolution as an Interdisciplinary Study

1.1.1 The concept of international regime

International environmental regimes, including the Basel Convention regime, can be characterized as a form of international cooperation, and the international relation's theories have developed the concept of international regimes to explain the origin, change and demise of such regimes by explaining cooperation through international institutions.[20] According to those theories, those institutions are deliberately constructed either on regional or global scale, "which are intended to remove specific issue-areas of international politics from the sphere of self-help behavior".[21] The interest in international regime sprang from the assumption that "international behavior is institutionalized",[22] and aimed to fill the lacuna between the broad study of international structure and the narrow study of international organization or regionalism.[23] Thus, international regime as a concept should be distinguished from cooperation. International regime indeed facilitates cooperation and are an example of cooperative behavior, but it is not necessary for cooperation to occur. Regime can also be a part of, but not equated with, social institution, defined as "recognized patterns of behavior or practice around which expectations converge."[24] Finally, regime should also be distinguished from "order" or "stability," since regime may facilitate order or stability but in some instances may unintentionally contribute to instability, such as when commitments to maintain parities under the Bretton

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[20] Cf. Haggard & Simmons, *supra* note 16; Young, *supra* note 16; Arthur A. Stein, *Coordination and Collaboration: Regimes in an Anarchic World*, 36 INTERNATIONAL ORGANIZATION 299 (1982); Robert O. Keohane, *The Demand for International Regimes*, 36 INTERNATIONAL ORGANIZATION 325 (1982); STEPHEN D. KRASNER, INTERNATIONAL REGIMES (Cornell University Press 1983); Andreas Hasenclever et al., *Integrating Theories of International Regimes*, 26 REVIEW OF INTERNATIONAL STUDIES 3 (Jan. 2000).
[21] Hasenclever et al., *supra* note 20.
[22] John Gerard Ruggie, *International Responses to Technology: Concepts and Trends*, 29 INTERNATIONAL ORGANIZATION 557 (Cambridge University Press 1975).
[23] Haggard & Simmons, *supra* note 16, at 492.
[24] Young, *supra* note 16.

Woods regime in the late 1960s produced chaotic exchange markets.[25]

Among the many scholars of international regimes, Krasner's influential works on international regime defined regime as:[26]

> *"Implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations. Principles are beliefs of fact, causation, and rectitude. Norms are standards of behavior defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice.*

Scholars have pointed out that this often-cited definition of international regime is not without weaknesses: 1) its *indistinguishable components* of principles, norms, rules, and procedures resulted in difficulties in differentiating between these components; and 2) its *vagueness* in limiting the "boundaries of the universe of cases."[27] Oran Young provided a more comprehensive definition, by arguing that "regime are social institutions governing the actions of those interested in specifiable activities (or accepted sets of activities)… they are recognized patterns of behavior or practice around which expectations converge."[28] It treats international regimes as multilateral agreements among states which aim to regulate national actions within an issue area and defines the choices of permissible actions of actors within an international regime by outlining explicit order.[29] It also corresponds with Constructivists' view of international regime that international regimes are considered as social structures with the function of creating norms and shared understandings.[30] Levy et al. further developed and operationalized Young's definition by defining international

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[25] Duncan Snidal, *The Limits of Hegemonic Stability Theory*, 39 INTERNATIONAL ORGANIZATION 579, 600 (1985); Haggard & Simmons, *supra* note 16, at 496.
[26] Stephen D. Krasner, *Structural Causes and Regime Consequences: Regimes as Intervening Variables*, 36 INTERNATIONAL ORGANIZATION 185, 186 (Cambridge University Press 1982).
[27] Marc A. Levy et al., *The Study of International Regimes*, 1 EUROPEAN JOURNAL OF INTERNATIONAL RELATIONS 267, 270 (Sep. 1995).
[28] Oran R. Young, *International Regimes: Problems of Concept Formation*, 32 WORLD POLITICS 331 (Cambridge University Press 1980).
[29] Haggard & Simmons, *supra* note 16, at 495.
[30] Kyle W. Danish, *International Relations Theory*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW (Daniel Bodansky et al. eds., Oxford University Press Aug. 2008); See also Jutta Brunnée & Stephen J. Toope, *International Law and Constructivism: Elements of an Interactional Theory of International Law*, 39 COLUM. J. TRANSNAT'L L. 19 (2000).

regime as "social institutions consisting of agreed upon principles, norms, rules, procedures and programs that govern the interactions of actors in specific issue areas."[31] Both definitions see international regime as a pervasive characteristic of the international system where regime and actors' behaviors are 'inextricably linked'.[32] This study takes this broad view of international regime following Young.

International regime theorists invariably refer to principles, norms and rules within such institutions as those recognized pattern of behavior of states, with much of international regime theory misses "the crucial link between the costs and benefits of specific legal rules and the role of international law as constitutive of the structure of the state system itself ."[33] In this regard, it is interesting to note the argument of Levy et al. arguing that "since rules are more well defined and concrete than principles and norms, they constitute the right starting-point for *operationalizing international regimes*."[34] As this study focuses on the change in the operationalization of the Basel Convention regime, Levy's argument is suggestive. According to them, the Basel Convention regime, with specific rules on regulatory scheme of transboundary movement of hazardous wastes, can be characterized as a "classic regime" which in addition to explicit rules and regular references to them, rule-consistent behavior is widespread.[35] Levy et al. further defined as follows: 1) principles involve goal orientations and causal beliefs on general policy arenas; 2) Norms describe general rights and obligations that operate mainly on the level of issue areas, but they are still so general that it is often impossible to determine whether or not specific actions violate them; and 3) rules are often stated explicitly in the formal

[31] The similarity of Levy et al.'s definition with Young's is to be expected since Young also contributes to this formulation of regime theory. See Levy et al., *supra* note 27, at 274, especially p. 274.
[32] Krasner, *supra* note 26, at 185.
[33] Andrew Hurrell, *International Society and the Study of Regimes: A Reflective Approach*, *in* REGIME THEORY AND INTERNATIONAL RELATIONS 49, 59 (Volker Rittberger ed., Clarendon Press 1993).
[34] Levy et al., *supra* note 27, at 271.
[35] Levy et al. argue that rule-consistent behavior can be confirmed when: 1] violations remain the exception rather than the norm, 2) the agreed upon rules are referred in case of violations; and 3] violators do not deny the rules and norms referred to in these protests. See *id.* at 272.

agreements on which regimes are commonly based, and they facilitate assessments of implementation and compliance.[36] Because of the more detailed characterization of international regime and its constituent elements, this study also takes account of the regime theory proposed by Levy et al.

IR Scholars of international regime theory assumed the importance of norms in shaping states' patterned behavior over time,[37] and this focus on norms can serve as an 'interdisciplinary bridge' between IR and International Law (IL) scholars.[38] Lang pointed out that in general, international regime definitions refer to subjective elements, including 'expectations', which provide the basis for actors to agree on rules or regulations to facilitate cooperation on a certain issue.[39] Gehring, building upon international environmental law, argues that international regimes integrate 'an accepted body of normative prescriptions' and an 'organized process for the making and application of these prescriptions.[40] If environmental regimes, including the Basel Convention regime, can be considered as institutions of recognized pattern of state's behavior being organized in a body of normative prescriptions, there is a fertile ground for an interdisciplinary study on

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[36] *Id.* at 273.

[37] See also *id.* at 271 (arguing that regime analysis as a tool for understanding international cooperation and the role of norms in the pursuit of cooperation); Martha Finnemore & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 INTERNATIONAL ORGANIZATION 887 (1998) (proposing the "life-cycle" of international norm through norm emergence, norm cascade, and norm internalization which might be applicable in analyzing regime change); See also Jutta Brunnée & Stephen J. Toope, *Constructivism and International Law*, *in* INTERDISCIPLINARY PERSPECTIVES ON INTERNATIONAL LAW AND INTERNATIONAL RELATIONS: THE STATE OF THE ART 119 (Jeffrey L. Dunoff & Mark A. Pollack eds., Cambridge University Press 2012) (norm is generally considered as "standards of behavior created through mutual expectation in a social setting.").

[38] Constructivism, as a norm-focused strand of international relations theory, is considered by many scholars in both fields as the most appropriate 'interdisciplinary bridge'. See e.g., ADRIANA SINCLAIR, INTERNATIONAL RELATIONS THEORY AND INTERNATIONAL LAW: A CRITICAL APPROACH (Cambridge University Press 2010) (considers Constructivism to be the best efforts of international relations theory to understand law in general and international law in particular); Brunnée & Toope, *supra* note 37 (arguing that "it is a fascination with norm creation, evolution, and destruction that has proven to be the strongest bridging point between some IL theorists and the constructivists.").

[39] Winfried Lang, *Regimes and Organizations in the Labyrinth of International Institutions*, *in* VÖLKERRECHT ZWISCHEN NORMATIVEM ANSPRUCH UND POLITISCHER REALITÄT: FESTSCHRIFT FÜR KARL ZEMANEK ZUM 65. GEBURTSTAG 275, 283 (Konrad Ginther et al. eds., Duncker & Humblot 1994).

[40] Thomas Gehring, *International Environmental Regimes: Dynamic Sectoral Legal Systems*, 1 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 35 (Dec. 1990).

their evolution: the "evolution" understood as a change in the pattern of states' behavior within the framework of normative prescriptions.

It is therefore necessary to view the Basel Convention within the context of regime theory as this study has examined thus far. The Basel Convention as a regime is a social institution; there are recognized patterns of behavior or practice which either formally recognized in the treaty text or accepted as the norms to conduct under the Convention. It means that Basel Convention is consisted of agreed-upon normative prescriptions in the form of principles, norms, and rules, and have certain procedures and mechanisms in order to operationalize them. These normative prescriptions serve as the framework within which actors' behavior and interactions are governed to attain the purpose of the Basel Convention regime, that is the environmentally sound management.

1.1.2 International regime evolution as a concept of regime change

According to IR scholars, any regime might undergo the process of 'regime change'. Haggard and Simmons proposed four dimensions which might be used to operationalize regime change: 1) strength; 2) organizational form; 3) scope; and 4) allocation mode.[41] Krasner classified two types of regime change: 1) change in rule and decision-making procedures are changes within regimes; and 2) changes in principles and norms are changes of the regime itself.[42] This classification differentiates between principles and norms on one hand and rules and procedures on the other hand. They consider principles and norms are determined by "the structure of the situation from which cooperation arises" and any change to these elements indicate a 'revolution' of the regime into either a new regime or its demise.[43] Thus, it largely treats principles and norms as a static element of the regime, while only modification on rules and procedures can be considered as changes within the

[41] Haggard & Simmons, *supra* note 16, at 496–98.
[42] Krasner, *supra* note 26, at 187–88.
[43] GEHRING, *supra* note 17, at 45.

regime. This view limits any attempt to analyze interaction between the normative and operational elements of the regime, e.g., any change in principles and norms as a result of significant changes in the regime's operationalization. Hence, this study will correspond with what Young defined as regime transformation, referring to "significant alterations in a regime's structures of rights and rules, the character of its social choice mechanisms, and the nature of its compliance mechanisms",[44] since it allows a broader analysis on changes in the "structures of rights and rules" which might comprise of principles, norms, and rules as the substantive components of a regime.

While Young's definition of regime transformation will form the core of the concept of "evolution", this study integrates international legal scholarship on evolutionary characteristics of treaties. Treaties can develop through interpretation of their provisions, without formally changing the texts of the treaty. These legal phenomena are often referred to as evolutionary interpretation of treaties.[45] This study, on the other hand, addresses two formal amendments to the Basel Convention, and, at the textual level, there is no question about "alterations in a regime's structures of rights and rules" had occurred. These amendments were adopted within the Conference of the Parties of the Basel Convention and came into force in accordance with the procedural rules provided in the Convention. These legal phenomena are similar to the International Convention for the Regulation of Whaling,[46] which the International Court of Justice (ICJ) in its 2014 *Whaling in the Antarctic* judgment called "an evolving instrument",[47] precisely because the International Whaling Commission (IWC) under the Convention had adopted several amendments to the Convention (its Schedule). This study examines whether the Basel Convention regime can also be characterized as an evolving instrument.

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[44] Young, *supra* note 16, at 290–91.
[45] George Abi-Saab, et al., eds., Evolutionary Interpretation and International Law (Hart, 2019).
[46] *International Convention for the Regulation of Whaling*, No. 161 UNTS 72 (Nov. 1948).
[47] Whaling in the Antarctic (Australia v. Japan: New Zealand intervening): Judgment of 31 March 2014, 2014 I.C.J. Reports 226, ¶ 45.

In such examination, it is important to refer to the following ICJ's statement: "Amendments to the Schedule and recommendations by the IWC may put an emphasis on one or the other objective pursued by the Convention, but cannot alter its object and purpose". [48] In other words, according to the Court, a treaty regime may undergo amendments so as to show its evolutionary character but those amendments cannot alter its object and purpose. [49] This study argues precisely the same that, while the two amendments have changed the operationalization of the Basel Convention, the Basel Convention regime as a whole continues to be founded on its foundational aim of achieving environmentally sound management of hazardous wastes in the international community. In this sense, the Basel Convention has shown its evolutionary character and has transformed and indeed strengthened as a treaty regime. For Young, a regime change might continue until it disappears and another taking its place,[50] but this study, integrating a legal analysis, corroborates a different future path of the Basel Convention regime.

This study describes *regime evolution* as significant alterations in a regime's rules and its operationalization leading to the changing patterns of behaviors without altering the regime's object and purpose. Alterations in the structure of rights and rules comprise of significant changes in a regime's normative elements of principles, norms, and rules but not to a degree of replacing them with new ones. As this research will demonstrate, it might refer to the changes of contents of those normative elements as an implication of the internal developments of the regime's operationalization. Changes in the regime's operationalization is a modification of activities required to transform an agreement or arrangement into a functioning social practice, that is, the schemes or mechanism of the regime.[51] The important role of the regime's institutional mechanism being the driving

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[48] *Id.* ¶ 56.
[49] Akiho Shibata, *ICRW as an Evolving Instrument: Potential Broader Implications of the Whaling Judgment*, 58 JAPANESE Y.B. INT'L L. 298 (2015).
[50] Young, *supra* note 16, at 276.
[51] Harold K. Jacobson & Edith Brown Weiss, *Implementing and Complying with International Environmental Accords: A Framework for Research*, 86th Annual Meeting of the American Political Science

force of such development can also be found in the ICJ's reasoning on *Whaling Judgement* when characterised the ICRW as an evolving instrument.[52] This alteration is not addressed by the mainstream regime change theory which focuses more on major shifts in the structure of international system.[53] Meanwhile, international legal scholarship's scrutiny on normative elements might provide insights in explaining this development. Such changes would still not be drastic enough as to change the foundational aim of the regime, that is, the convergence of expectations by which the regime was founded on.

1.2 Background of The Basel Convention

1.2.1 The Problem of Transboundary Movements of Hazardous Wastes

The Basel Convention was adopted in 1989 and entered into force in 1992, and is the first and most comprehensive international treaty on a global scale to address transboundary movement of hazardous wastes and other wastes, which established a strict regulatory scheme based on PIC mechanism and obliges Parties to ensure its environmentally sound management. The preamble conveys the Convention's aim to protect human health and the environment against adverse effects of hazardous wastes[54] which may result from generation, transport, and unsound management and disposal operations. Kummer further elaborates that this aim is addressed through three central objectives: 1) minimization of waste generation and promotion of environmentally sound management of hazardous

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Association (1990); Harold K. Jacobson & Edith Brown Weiss, *Strengthening Compliance with International Environmental Accords: Preliminary Observations from a Collaborative Project*, 1 GLOBAL GOVERNANCE 119 (1995).

[52] *Whaling in the Antarctic*, 2014 I.C.J. Reports at 45; See also Shibata, *ICRW as an Evolving Instrument*, *supra* note 49, at 303–4.

[53] Gehring also raised this issue in his book. See GEHRING, *supra* note 17, at 45, 343–46; See also Susan Strange, *Cave! Hic Dragones: A Critique of Regime Analysis*, 36 INTERNATIONAL ORGANIZATION 479 (1982), especially pp. 488-490.

[54] The Preamble states that the parties of the Convention aware of the risk from generation and transboundary movement (¶ 1), mindful of the growing threat posed by increased generation and its most effective solution is to reduce the generation (¶¶ 2-3), convinced that necessary measures should be taken consistent with the protection of human health and environment (¶¶ 4-5), also mindful to the *spirit, principles, aims, and functions* of the World Charter for Nature as the rule of ethics of protection of human environment (¶ 15).

wastes, wherever its place of disposal; 2) restriction of transboundary movement of hazardous wastes except when it is perceived to observe the no-less environmentally sound principle; and 3) a regulatory system where transboundary movement are permissible under PIC principle, a cornerstone of the Convention itself.[55] An early document during the first meeting of the COP echoes the same sentiment.[56]

In order to understand why the Basel Convention adopted in 1989 was fundamentally based on the concept of ESM, one needs to understand the complexities surrounding the problems of hazardous waste treatments and their transboundary movements in 1970's and 1980's. Prior to the initiation and negotiation of Basel Convention, transboundary movement of hazardous wastes seemingly gathered little global attention. Indeed, there were many cases where environmental pollutions as a result of mismanagement of hazardous wastes attracts attentions, such as the Minamata incident, which resulted in first effort by a country to introduce hazardous waste control by Japan in 1960 and symbolized through the adoption of Minamata Convention on Mercury,[57] public outcry in the UK in 1972 after the discovery of heat treatment cyanide salts being dumped in empty lands which lead to Poisonous Waste Act 1972,[58] the emergence of 'Triangle of Death' area of

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[55] Katharina Kummer Peiry, *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 107 PROCEEDINGS OF THE ANNUAL MEETING (AMERICAN SOCIETY OF INTERNATIONAL LAW) 434 (2013).

[56] Opening speech by Dr. M.K. Tolba, then the Executive Director of UNEP, which stressed that "the central objective of the Convention was to reduce to a minimum the generation of hazardous wastes and ensure that whatever was produced was disposed of in an environmentally sound manner as close to the point of generation of possible. See *Report of the First Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.1/24 (Dec. 1992), [hereinafter COP-1 Report].

[57] On elaboration on Minamata Incidents, see Masazumi Harada, *The Global Lessons of Minamata Disease: An Introduction to Minamata Studies*, *in* TAKING LIFE AND DEATH SERIOUSLY - BIOETHICS FROM JAPAN 299 (Takao Takahashi ed., Emerald Group Publishing Limited 2005); Harutoshi Funabashi, *Minamata Disease and Environmental Governance*, 15 INTERNATIONAL JOURNAL OF JAPANESE SOCIOLOGY 7 (2006); On Minamata Convention, see Tim K. Mackey et al., *The Minamata Convention on Mercury: Attempting to Address the Global Controversy of Dental Amalgam Use and Mercury Waste Disposal*, 472 SCIENCE OF THE TOTAL ENVIRONMENT 125 (2014); Henrik Selin, *Global Environmental Law and Treaty-Making on Hazardous Substances: The Minamata Convention and Mercury Abatement*, 14 GLOBAL ENVIRONMENTAL POLITICS 1 (2014).

[58] Richard Macrory, *The Control of Hazardous Wastes - Law Enforcement in Practice Environmental Law in the USSR and the United Kingdom: Agriculture, Industry, and Hazardous Wastes*, 4 CONN. J. INT'L L. 333 (1989).

Campania, Italy possibly since 1970s[59] and also in the US after widespread dumping of hazardous wastes across the country which lead to Resource Conservation and Recovery Act [hereinafter RCRA] 1976 in the US.[60] But the widespread incidents around the world, in 1970s, were isolated cases, limited in its domestic level and scope of management and regulation.

Attempts for a transnational regime in addressing hazardous waste issue at the time were faced with various obstacles, such as the absence of a universally accepted sufficient definition of hazardous wastes,[61] resulted in part from differences in management standards and practices, different national definitions of what constitutes 'hazardous', and the lucrative economic value of waste trade.[62] In general, causes of increase in transboundary hazardous wastes can be categorized into three categories: 1) the path of least resistance; 2) wastes exported on regional scale; and 3) wastes as secondary raw materials.[63] First, persons in generating state were facing increasing landfill and

[59] 'Triangle of Death refers to the region in Southeastern part of Italy which has one of the worst records of illegal hazardous waste dumping practices. See Kathryn Senior & Alfredo Mazza, *Italian "Triangle of Death" Linked to Waste Crisis*, 5 THE LANCET ONCOLOGY 525 (Sep. 2004); Maria Triassi et al., *Environmental Pollution from Illegal Waste Disposal and Health Effects: A Review on the "Triangle of Death,"* 12 INT J ENVIRON RES PUBLIC HEALTH 1216 (2015).

[60] Sidney M. Wolf, *Public Opposition to Hazardous Waste Sites: The Self-Defeating Approach to National Hazardous Waste Control under Subtitle C of the Resource Conservation and Recovery Act of 1976*, 8 B. C. ENVTL. AFF. L. REV. 463 (1980); James P. Lester et al., *Hazardous Wastes, Politics, and Public Policy: A Comparative State Analysis*, 36 WESTERN POLITICAL QUARTERLY 257 (1983).

[61] For discussions on international definition of hazardous and its obstacles prior to Basel Convention, see Laura A. Strohm, *The Environmental Politics of the International Waste Trade*, 2 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 129 (Jun. 1993); KUMMER, *supra* note 18; John Thomas Smith, *The Challenges of Environmentally Sound and Efficient Regulation of Waste: The Need for Enhanced International Understanding*, 5 J ENVIRONMENTAL LAW 91 (1993); Wordsworth Filo Jones, *The Evolution of the Bamako Convention: An African Perspective*, 4 COLO. J. INT'L ENVTL. L. & POL'Y 324 (1993).

[62] Basel Convention does comprehensively approach the issue of "hazardous waste" definition but in a rather subject-based, dynamic way through amendable Annex I, III, and VIII while also ambiguously included non-waste in Annex IX, an issue which will be addressed later on. See Cyril Uchenna Gwam, *Travaux Preparatoires of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 18 J. NAT. RESOURCES & ENVTL. L. 1 (2003); Muthu S. Sundram, *Basel Convention on Transboundary Movement of Hazardous Wastes: Total Ban Amendment*, 9 PACE INT'L L. REV. 1 (1997); U Hoffmann & B Wilson, *Requirements for, and Benefits of, Environmentally Sound and Economically Viable Management of Battery Recycling in the Philippines in the Wake of Basel Convention Trade Restrictions*, 88 JOURNAL OF POWER SOURCES 115 (May 2000); Olivier Barsalou & Michael Hennessy Picard, *International Environmental Law in an Era of Globalized Waste*, 17 CHINESE JOURNAL OF INTERNATIONAL LAW 887 (2018).

[63] KUMMER, *supra* note 18, at 6–10.

incineration cost and scarcity of proper disposal facilities,[64] growing 'Not-In-My-Backyard' [hereinafter NIMBY] syndrome which drove public resistance to the establishment and operation of such facilities[65] and tightening environmental standards and regulations.[66] Persons in hold of generated wastes thus found solution overseas: exporting toxic waste to countries offering a mere fraction of domestic disposal costs with less stringent regulations, less public oppositions (due to lack of public awareness), and less control over compliance.[67] Thus, toxic waste found their disposal 'path' with least resistance to those waste. It is worth noting that despite the majority of these hazardous waste transfer happened between developed countries and "threshold countries" or countries-in-transition (such as from Western to Eastern Europe), many of those waste ended up in developing countries, having the least of resistance to such transfer. Another reason for this is that while environmental standards and regulations were becoming stricter in waste-generating developed states, in general it was their import regulations which were more comprehensively developed while their export regulations were more lenient.[68]

Second, export of hazardous wastes regionally also took place for environmentally sound reasons, such as where a more technologically advanced disposal facilities located across the boundary, if the nearest facility for a specific waste stream is available in neighboring states, establishment of joint disposal facility, or facilities operated by

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[64] Despite technological and management advances, estimated one-half to three-quarters of waste streams ended up in landfill; thousands were found to be inadequate and toxic substances were accumulating and leaking into groundwater and other media. During the 1980s, in The United States alone, EPA identified 32,000 potentially hazardous sites. In Europe, 4,000 unsatisfactory sites found in The Netherland and 3,200 in Denmark. See MOSTAFA K. TOLBA & IWONA RUMMEL-BULSKA, GLOBAL ENVIRONMENTAL DIPLOMACY: NEGOTIATING ENVIRONMENTAL AGREEMENTS FOR THE WORLD, 1973-1992 (The MIT Press 1998).

[65] See generally Michael Dear, *Understanding and Overcoming the NIMBY Syndrome*, 58 JOURNAL OF THE AMERICAN PLANNING ASSOCIATION 288 (Routledge Sep. 1992); Susan Hunter & Kevin M. Leyden, *Beyond NIMBY: Explaining Opposition to Hazardous Waste Facilities*, 23 POLICY STUDIES JOURNAL 601 (1995).

[66] Strohm, *supra* note 61; On development of waste laws in OECD, EU, and US, see Marguerite M. Cusack, *International Law and the Transboundary Shipment of Hazardous Waste to the Third World: Will the Basel Convention Make a Difference?*, 5 AM. U. J. INT'L L. & POL'Y 393 (1989–1990).

[67] TOLBA & RUMMEL-BULSKA, *supra* note 64, at 98–99; Jennifer Clapp, *Africa, NGOs, and the International Toxic Waste Trade*, 3 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 17 (Jun. 1994).

[68] TOLBA & RUMMEL-BULSKA, *supra* note 64, at 99.

multinational corporations (MNCs) located in different country within a region. It is important to note that such transboundary movement happens mostly on neighboring industrialized countries with a rather balanced technology and management (such as in European Union and North America).[69]

Third, hazardous wastes considered as having potential value as secondary raw materials was also exported, which was increasing in line with the advancement of waste management and technology. Hazardous wastes with economic values are treated not as a waste but rather as a 'resource' or at least a profitable business opportunity, destined for recovery or recycling operations.[70] Despite its economic values relates to resource depletion, the technology needed for these operations to be environmentally sound was not widely available, even almost impossible in developing countries with limited technical and infrastructural capabilities. The increasing fluidity and globalized of international trading system's view on these wastes as resources means these movements does not necessarily correspond with heightened environmental and human health concerns, since more liberalized markets offer the pull factor for higher and more lucrative business for waste trade.

The differing reality of capacity and capabilities between developed and developing countries, brought to wider public attention by reports of transnational toxic waste incidents which started to occur during mid-1980s such as US-European pharmaceutical waste export to Guinea-Bissau,[71] Jelly Wax cargo exports to developing countries such as

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[69] KUMMER, *supra* note 18, at 8–9; Günther Handl, *Environmental Security and Global Change: The Challenge to International Law*, 1 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 3 (1990).

[70] During 1980s, between OECD countries, this transboundary movement of hazardous wastes destined for recycling amounted to 50% of total movement, while between 2007-2015 averaged at 74% of total global transboundary movement. Cf. KUMMER, *supra* note 18, at 61; *Waste Without Frontiers II: Global Trends in Generation and Transboundary Movements of Hazardous Wastes and Other Wastes*, No. UNEP/SBC/2010/22, 68 (UNEP, Basel Convention, 2018); PIERRE-MARIE DUPUY & JORGE E. VIÑUALES, INTERNATIONAL ENVIRONMENTAL LAW 251–60 (Cambridge University Press 2nd ed. 2015).

[71] In 1987, it was discovered that secret contracts were agreed or being agreed between several US and EC-based companies to dump pharmaceutical and chemical waste in Guinea Bissau which then improperly disposed and polluted local environments. See Charles A. Anyinam, *Transboundary Movements of Hazardous Wastes: The Case of Toxic Waste Dumping in Africa*, 21 INT J HEALTH SERV 759 (Oct. 1991).

Lebanon, Syria, and Venezuela,[72] Khian Sea and Mobro 4000 waste ship incident originating from US,[73] and the infamous Koko village toxic waste dump incident in Nigeria[74] and its subsequent saga of the 'homeless' toxic waste ship "Karin-B".[75] These incidents was only the tip of the iceberg, with some estimated that going from 1980s through the 1990s, more than 50% worldwide transboundary waste movements were illegal,[76] and was particularly acute in Africa[77] for several reasons: 1) geographic and topographic nature which complicates already understaffed border control; 2) the lack of environmental policies and even if it's available, it's not properly enforced, and 3) environmental protection was perceived having lower economic incentives rather than allowing them to be 'imported', since many southern countries were in need for fiscal

[72] The waste exports were abandoned in importing countries, some even leaked to the environment and in some cases resulted in civilian deaths, such as in Venezuela. The case in Lebanon raised suspicion of possible links with Italian mafia, most notably after assassination attempt on Pierre Malychef, senior Lebanese environmentalist who was conducting investigation on the case. See Strohm, *supra* note 61; Clapp, *supra* note 67; On case in Lebanon, see Nils Hägerdal, *Toxic Waste Dumping in Conflict Zones: Evidence from 1980s Lebanon*, MEDITERRANEAN POLITICS 1 (Nov. 2019); Fouad Hamdan, *Waste Trade in the Mediterranean: Toxic Attack against Lebanon. Case One: Toxics from Italy* 28 (Aug. 1996).

[73] Khian Sea waste ship incident was a 27-months journey of Khian Sea carrying incinerator ash (or toxic fly-ash) from Philadelphia, initially destined for the Bahamas and finally disposed some of the waste onto coastal areas in Haiti, while the rest of the waste mysteriously vanished around Southeast Asia's waters. Mobro 4000 incident follows the journey of a barge with ties to Long Island mafia carrying various types of wastes rejected by US and foreign authorities, most notably in Mexico and Belize. See Julienne I. Adler, *United States' Waste Export Control Program: Burying Our Neighbors in Garbage Comment*, 40 AM. U. L. REV. 885 (1991); Hao-Nhien Q. Vu, *The Law of Treaties and the Export of Hazardous Waste Comment*, 12 UCLA J. ENVTL. L. & POL'Y 389 (1993–1994); Jane Katz, *What a Waste: The Generation and Disposal of Trash Imposes Costs on Society and the Environment: Should We Be Doing More?*, 12 REGIONAL REVIEW 22 (2002).

[74] In 1988, it was discovered that 2000 drums contaminated with PCB, dimethyl formaldehyde, and asbestos fibers and disguised as building materials were imported from Italy to Koko, a small fishing village in Nigeria. The contamination and pollution that ensued raised health issues and force a government evacuation order of 5000 residents. See Simone M. Müller, *The "Flying Dutchmen": Ships' Tales of Toxic Waste in a Globalized World*, RCC PERSPECTIVES 13 (Rachel Carson Center 2016); JENNIFER CLAPP, TOXIC EXPORTS: THE TRANSFER OF HAZARDOUS WASTES AND TECHNOLOGIES FROM RICH TO POOR COUNTRIES (Cornell University Press 2001).

[75] Karin B was a ship carrying leaky toxic drums from Koko incidents to Europe but was subsequently rejected to port by France, Britain, Spain, West Germany and the Netherlands and finally received permission to land in Livorno, Italy. See Denis Smith, *The Kraken Wakes: Corporate Social Responsibility and the Political Dynamics of the Hazardous Waste Issue*, 5 INDUSTRIAL CRISIS QUARTERLY 189 (1991); Duncan Laurence & Brian Wynne, *Transporting Waste in the European Community: A Free Market?*, 31 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 12 (Aug. 1989).

[76] Jennifer R. Kitt, *Waste Exports to the Developing World: A Global Response Note*, 7 GEO. INT'L ENVTL. L. REV. 485 (1995).

[77] Where by 1990, almost half of the countries in the continents had been approached to accept hazardous wastes. See Anyinam, *supra* note 71; Clapp, *supra* note 67.

relief.[78]

Concurrently, the extent of transboundary hazardous waste incidents became much more evident and led to the outcry of perceived "garbage imperialism" from the South who believed that these waste exports were yet another mechanism of North's exploitation despite initial involvement of several southern governments in the waste trade deals.[79] There was an emerging view that the waste exports was an environmental injustice practice, where 'importing states bear the cost of industrialization without receiving the benefits of production' (cost-externalization).[80] This led to the call for a global ban on waste trade, which was also advocated by environmental non-governmental organizations (NGOs), such as Greenpeace.[81] As a respond to this growing interest, UNEP mandated its Executive Director in 1987 to convene a working group consisted of legal and technical experts to prepare a global convention on the control of transboundary hazardous wastes.

1.2.2 Drafting the Convention: Main Sessions of Ad Hoc Working Group

It became evident that the transboundary movement of hazardous waste issue required global attention and solution supported by wide range of national governments. The development in the field of international environmental law, which was becoming 'ubiquitous' on various levels after Stockholm Convention in 1972,[82] heightened interests

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[78] Gwam, *supra* note 62, at 11; Clapp, *supra* note 67; DAVID N PELLOW, RESISTING GLOBAL TOXICS: TRANSNATIONAL MOVEMENTS FOR ENVIRONMENTAL JUSTICE (The MIT Press 2007).
[79] Clapp, *supra* note 67; PELLOW, *supra* note 78, at 12–16.
[80] Kitt, *supra* note 76, at 492.
[81] Greenpeace started its waste trade campaign in 1987 and continue to play its role during the negotiation of Basel Convention, and up until the campaign ends in early 1990s, as organizer, technical expert, and conscious-raiser among the southern countries. See CLAPP, *supra* note 74; PELLOW, *supra* note 78; Cristina A. Lucier & Brian J. Gareau, *Obstacles to Preserving Precaution and Equity in Global Hazardous Waste Regulation: An Analysis of Contested Knowledge in the Basel Convention*, 16 INT ENVIRON AGREEMENTS 493 (Aug. 2016).
[82] Professor Shibata captured the development of international environmental law as 'ubiquitous' in the 21st century. The emergence of international legal instrument covering hazardous wastes (such as Montevideo Programme and Cairo Guidelines, which subsequently led to the development of Basel Convention) opened opportunities for other related issues to be addressed such as on Persistent Organic Pollutants (POPs) through Stockholm Convention, PIC mechanism on hazardous chemicals under Rotterdam Convention, and Minamata Convention as the most recent one. See Akiho Shibata, *International Environmental Lawmaking*

both from developed countries and developing countries, despite different in their interests, and a mandate from 1981 Montevideo Programme, led to the negotiation and adoption of Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes through UNEP Governing Council [hereinafter UNEP GC] Decision 14/30 of June 17, 1987.[83] The document attempts to find the balance between rights and duties of states in managing hazardous wastes, as a result of negotiations under the working group which comprised of experts from both developed and developing countries.[84] The same decision also established an ad hoc working group of legal and technical experts with a mandate to prepare a global convention on the control of transboundary movements of hazardous wastes.[85] Subsequently, the ad hoc working group held five main sessions leading up to the Conference of Plenipotentiaries held in Basel in March 1989. The session kicked in 1987, collecting suggestions and comments for the first draft convention from the experts before formal negotiation on the Convention.[86] Early on, the majority of experts requested the draft convention to draw from previous works on the issue, such as OECD's Decision and EU's Directive, forming the consensus that the Convention will be to 'control' and 'regulate' transboundary movement of hazardous wastes, even in the absence of national legislation.

Five subsequent meetings were held after the organizational meeting, with two additional from initial mandate of three meetings to further address several issues arose

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in the First Decade of the Twenty-First Century: The Form and Process, 54 JAPANESE Y.B. INTL. LAW 28 (2011).

[83] See Environmentally Sound Management, Annex I of *United Nations Environment Programme Report of the Governing Council on the Work of Its Fourteenth Session*, No. UNEP/GC.14/26, 30 (Jul. 1987), [hereinafter UNEP GC-14 Report].

[84] The session was attended by experts from Afghanistan, Argentina, Brazil, Canada, Chile, China, Comoros, Democratic Yemen, Egypt, Finland, France, West Germany, Ghana, Kenya, Kuwait, Morocco, Netherlands, Peru, Senegal, Sweden, Switzerland, Thailand, Tonga, Uganda, United Kingdom, United States and Zaire. See *Final Report of the Working Group: Ad Hoc Working Group of Experts on the Environmentally Sound Management of Hazardous Wastes*, No. UNEP/WG.122/3 (Dec. 1985).

[85] *UNEP GC-14 Report (UNEP/GC.14/26)*, *supra* note 83, at 9, [hereinafter ad hoc WG].

[86] *Report of the Ad Hoc Working Group on the Work of the Organizational Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes*, No. UNEP/WG.180/3 (Oct. 1987), [hereinafter Organizational Meeting Report].

during the arduous negotiations on the issue. The first session worked on the basis that the Convention to be not a framework, but a convention with direct practical implications, as conveyed by Mrs. Iwona Rummel-Bulska, then-acting Chief of Environmental Law and Machinery Unit of UNEP.[87] There were already contentious issues discussed during the 1st meeting, *inter alia,* the definition of hazardous wastes, what constitutes 'disposals', and whether destined for recycling should also be included in the Convention.[88] These issues would become the basis for debates on the issue of banning of transboundary movement to developing country later on, but not during the early meetings.[89] The second session were attended by forty delegates and twenty two of them were from developing countries, indicating the heightened interest of developing countries on the Convention, growing awareness on the adverse effects of hazardous wastes on human health and environments, and increasing support from developed countries to developing countries as requested by UNEP Secretariat.[90] It was during this second session that the delegate of Jamaica, supported by Greenpeace, proposed a total ban concept to be included into the Convention, arguing that the initial draft convention focused too much attention on 'regulating' rather than 'prohibiting' the waste export.[91] This proposal received support from African countries and later adopted to became their position throughout the negotiations. At the time, the concept of total ban would encompass "a complete global ban of *all* transboundary movements of hazardous wastes."

In light of North-South divide which was getting apparent at the time of the third

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[87] Report of the Ad Hoc Working Group on the Work of the First Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.182/3 (Feb. 5, 1988), [hereinafter First Session Report].
[88] *Id.* ¶¶ 4; 9.
[89] William Kempel, *The Negotiations on the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal: A National Delegation Perspective*, 4 INTERNATIONAL NEGOTIATION 413 (1999).
[90] Gwam, *supra* note 62, at 23–24.
[91] *Report of the Ad Hoc Working Group on the Work of the Second Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes*, No. UNEP/WG.186/3, 3 (Jun. 1988), [hereinafter Second Session Report]; See also Gwam, *supra* note 62, at 24–25.

meeting, then UNEP Executive Director Mr. Mostafa Kamal Tolba addressed the working group in his opening statement, making clear of UNEP's vision on the Convention: 1) that it would focus on disposal close to place of generation; 2) transboundary movement of hazardous wastes should only be allowed under very strict conditions; 3) that the problem of illegal toxic waste dumping are every state's concerns which were mainly done by private entities and not government; and 4) UNEP was not mainly concerned with transport of hazardous wastes, but with environmentally sound disposal of those waste.[92] This statement was intended to ease the deadlock on several issues, one of them is the export ban, but since the position was still strong, it was further discussed under informal negotiation convened by UNEP in January 4-6, 1989, Geneva, to address several points identified by Mr. Tolba, including the inclusion of "management" into the title of the Convention and sovereign rights to ban importation and disposal of hazardous waste. Further position of "no derailing the negotiation and adoption of the Convention" was informally confirmed by UNEP Secretariat through Ministerial Meeting in Dakar, Senegal, on January 1989.[93]

During the fourth session, only the preamble and twelve articles out of thirty articles of the draft Convention were discussed.[94] Reservations were made throughout the draft text, especially on Article II Definitions, Article III Definition of Hazardous Wastes, and Article IV General Obligations, all of which were related to the export ban issue.[95] There were three issues that arose during the fifth and final meeting: the shifting position of African group to fully support the total ban, the position of the United States on relationship between municipal waste and hazardous waste, and reservations which needed further

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[92] TOLBA & RUMMEL-BULSKA, *supra* note 64, at 103–4.
[93] *Id.* at 108–9; Gwam, *supra* note 62, at 35–37.
[94] See *Report of the Ad Hoc Working Group on the Work of the Fourth Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes*, No. UNEP/WG.190/4 & UNEP/WG.190/4/Corr.I (Feb. 1988), [hereinafter Fourth Session Report].
[95] See *id.*; Gwam, *supra* note 62, at 37–42.

clarification.[96] The African group would later retain their position into the Conference of Plenipotentiaries, while United States' concern would be resolved by introducing the term of "other wastes" to cover municipal wastes. Some of the reservations previously put forwards by delegates were agreed to be formulated as declarations made by concerned states.[97]

1.3 Main Features of Basel Convention

1.3.1 Scope of the Convention

The Convention adopts approach of the 1985 OECD draft agreement on hazardous wastes which defines the scope of hazardous wastes to be covered under the Convention through a set of technical annexes as provisioned by Article 1 paragraph 1(a) (Annex I on categories to be controlled, Annex II on waste requiring special considerations, Annex III on list of hazardous characteristics, Annex VIII on list of wastes characterized as hazardous, and Annex IX on list of wastes not covered) and supplemented by Article 1 paragraph 1(b) and Article 3 provisions which allows party member to domestically define additional hazardous waste through national legislation. Waste is defined as objects or substances to be disposed, intended to be disposed, or required by national legislation to be disposed (Article 2 paragraph 1) and disposal operations are defined by Annex IV (Article 2 paragraph 4) which are divided into final disposal operations (Annex IV.A) and recovery/recycling operations (Annex IV.B). The Convention does not control radioactive wastes and wastes from normal operations of ships which are subjects to other international instruments (Article 1 paragraph 3 and Article 1 paragraph 4).

Hazardous waste is not explicitly defined in Article 2 but through classifications set out in Article 1 paragraph 1(a): a waste is defined as 'hazardous' if it falls into any category

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[96] TOLBA & RUMMEL-BULSKA, *supra* note 64, at 111.
[97] *Id.* at 111–12; Gwam, *supra* note 62, at 42–43.

in Annex I, unless it does not have any characteristic listed in Annex III. Annex VIII further lists wastes commonly characterized as hazardous under Article 1 paragraph 1(a), unless it does not have any Annex III characteristic. These articles are closely related to the issue of "degree of hazardousness", that is, at which point does the waste in question constitutes as hazardous, emerged during the early negotiations under Basel Convention. Several developed countries and industry organizations proposed the what is known as 'intrinsic hazard', an approach towards hazardousness that as long as there is non-existent or only small amount of hazardous constituents exists which will not make the waste as hazardous, regardless of the quantities, should not be considered as hazardous waste. On the other hand, developing countries supported by environmental organizations proposed for considerations on how those wastes will actually be managed in importing facilities, or referred as the "risk management" approach.[98] Another distinction is the use of Annex II categorizing wastes requiring special considerations or "other wastes" which includes household wastes, residues arising from the incineration of household wastes, and several types of plastic wastes after the 2019 plastic waste amendment. This distinction is terminological as a result of compromise during the negotiating process.[99]

In regard to the issue of waste destined for recycling and recovery operations, Article 4 paragraph 9(b) allows for transboundary transfer of hazardous waste required as raw materials to be recycled in state of import, but there is no clear mechanism to distinguish between recyclable and non-recyclable, a subject of criticism of the Convention for a long time. The distinction has practical implications in implementing the Convention's provisions while also related to the potential benefit in regards to the potential dangers of transboundary recycling operations. A Guidance Document was submitted by Technical

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[98] Lucier & Gareau, *supra* note 81, at 494.
[99] See *Final Report of the Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movement of Hazardous Wastes*, No. UN Doc. UNEP/IG.80/4 (Mar. 1989), [hereinafter Final Report Ad hoc WG]; *Explanatory Notes with Recommendations for Amending Annexes I-IV of the Fifth Revised Draft Convention*, No. UNEP/WG.190/3/Add.1 (Jan. 1989).

Working Group (TWG) and adopted by the COP and published in 2002 and subsequently incorporated into technical guidelines on specific wastes, but nevertheless does not offer clear distinction nor developed into norms under the Convention.[100] Basel Convention also does not cover hazardous wastes having radioactive materials which are already subjects to other international instruments (Article 1 paragraph 3) and wastes discharged from normal operations of a ship (Article 1 paragraph 4), which are mostly covered under MARPOL 73/78.[101]

1.3.2 General Obligations

The Basel Convention provides the following general principles that may constitute important elements of the ESM Principle. First, the waste minimization principle, that is the generation of hazardous wastes should be decreased to minimal (Article 4 paragraph 2(a)). Each state is required to take appropriate measures to minimize their generation of hazardous wastes (Article 4 paragraph 2(a)) but has a conditionality of "taking into account social, technological and economic aspects". Despite that, the obligation of waste minimization is prevalent within the Basel regime, such as with obligation for states to cooperate in developing and implementing low-cost technologies to minimize hazardous waste (Article 10 paragraph 2(c)) and also emphasized in the Basel Declaration on Environmentally Sound Management as one of the fundamental aims of Basel Convention [hereinafter the Basel Declaration].[102] Second, the self-sufficiency and proximity principle, which means that to ensure availability of adequate facilities for environmentally sound

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[100] The Guidance Document mostly focused on studying the pros and cons of recovery operations, and offer guidance in distinguishing whether waste is environmentally sound to be recycled through series of questions. See Secretariat of the Basel Convention, *Guidance Document on Transboundary Movements of Hazardous Wastes Destined for Recovery Operations*, No. UNEP/SBC(05)/B2/no.95/002 (Secretariat of the Basel Convention 2002).

[101] *International Convention for the Prevention of Pollution from Ships as Modified by the Protocol of 1978*, 1341 UNTS 3 (Feb. 1978), [hereinafter MARPOL 73/78].

[102] *Report of the Fifth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.5/29 (Dec. 1999). [hereinafter COP-5 Report].

management of hazardous wastes to the extent possible within generation place, and if impossible, to dispose it as close to the source of generation (Article 4 paragraph 2(b)). Third, the least transboundary movement principle (Article 4 paragraph 2(d)), in relation to previous principles, aim to minimize transboundary movement of hazardous wastes through ensuring adequate facilities within the country of generation. Fourth, pollution prevention, which mandates for an integrated approach in preventing pollution and if such cases occur, to minimize the consequences to protect human health and the environment against the adverse effects which may result from it (Article 4 paragraph 2(c)). Fifth, transboundary movements should only be allowed if constitute as the best solutions from environmental viewpoints and observes the environmentally sound management (Article 4 paragraph 2(b), 2(d), 2(e), and 2(g), Article 4 paragraph 8 and Article 4 paragraph 9(a)).

In addition to those general principles, the Basel Convention provides specific rules as to the prohibition of transboundary movement of hazardous wastes to the Antarctic, transboundary movements are prohibited to the Antarctic (Article 4 paragraph 6), to non-Party without treaty/agreement with the same environmentally sound standards as required under the Basel Convention (Article 4 paragraph 5 and Article 11), to states already declare those wastes as hazardous under national regulations (Article 4 paragraph 7(a)). Any legal transboundary movements of hazardous wastes must conform to the PIC mechanism established under Basel Convention (established under Article 6), which make it necessary to obtain prior consent from import and transit states (Article 6 paragraph 3 and 4). Any hazardous wastes which were illegally transported (Article 9), or legally exported but subsequently cannot be disposed in an environmentally sound way (Article 8), must be re-imported by the state of export. The provisions of Basel Convention ensure the rights of state of import to prohibit imports of hazardous wastes to their jurisdictions (Article 4 paragraph 1(a)) and state of export also shall prohibit export in case of notification from state of import (Article 4 paragraph 1(b) and 1(c)). Parties are obliged to ensure the availability of adequate disposal facilities, to the extent possible, in state of generation in

order to achieve environmentally sound management of hazardous wastes (Article 4 paragraph 2(b)) and ensure pollution prevention during its management (Article 4 paragraph 2(c)).

States are also obliged to ensure the minimization of transboundary movement of hazardous waste (Article 4 paragraph 2(d)) through obligation to prevent export (Article 4 paragraph 2(e)) and import (Article 4 paragraph 2(g)) if it has "reasons to believe" that the wastes in question will not be managed in an environmentally sound manner. This notion is left open to interpretations, and it is primarily interpreted that the obligation falls to the exporting states' conclusion based on information received from importing states in case of export, and importing states' conclusion based on information within their territory in case of import.[103] One of the issue related to the obligation to reduce the transboundary movement of hazardous wastes that this obligation comes with conditionality of "consistent with the environmentally sound and efficient management" which is argued are currently quite difficult to achieve; technologies to constitute environmentally sound management generally does not come in cheap and sometimes disposal costs are expensive instead due to domestic requirements thus may not achieve the threshold of "efficient". This notion may also be interpreted as cheaper disposal cost outside state of generation as long as within the vague threshold of 'efficient' may be allowed and considered as environmentally sound, a rather concerning but nevertheless realistic for some countries.

1.4 Environmentally Sound Management as the Original Aim of the Convention

The original aim of the Convention serves as the convergence of expectation of actors the Basel Convention regime. It underpins the nature of the Convention as well as its operationalization; rules and mechanisms of Basel Convention might change as a result of

[103] KUMMER, *supra* note 18, at 57.

developments within the regime, but the convergence of expectation cannot change. However, it might either be weakened or, as this study argues, strengthened as the result of 'regime evolution' of Basel Convention. It is therefore necessary to establish what is the original aim underpinning the Basel Convention. Drawing from the whole negotiation process, its *travaux preparatoires* reports, the text of the Basel Convention and documents released by its Secretariat, this study argues that the ESM principle is the original aim of the Convention.

There are several key points that can be underlined from examining the main sessions of the ad hoc working group in regard to the importance of environmentally sound management as the original aim of the Basel Convention regime and how it would be achieved through the regulatory scheme of the Convention. *First*, the initial aim of the convening by UNEP was, *inter alia*, to environmentally sound manage the issue of hazardous wastes, as reiterated by Mr. Tolba during the third meeting, rather than just to address the transportation of those wastes. The key points from Mr. Tolba's statement would all refer to the elements of environmentally sound management of hazardous wastes, which would include close-to-source disposal and that such transportations should only be allowed only under "very strict" conditions. *Second*, Mr. Tolba's statement also implies that the Convention would establish a strict regulatory scheme in the case that transboundary movement of hazardous wastes was allowed to proceed. This point was reiterated during the informal meeting with the insistence of including the word 'management' into the title of the Convention, further establishing that the Convention was indeed intended to 'environmentally sound manage' hazardous wastes. *Third*, developing states' position on supporting the 'total ban' of transboundary movement of hazardous wastes should be viewed not as resistance to the negotiation process, but rather to point out that achieving the aim of environmentally sound management should also take into consideration the capabilities of developing countries, which were not as adequate as those in developed countries. The argument on total ban should be interpreted that banning the

movements of hazardous wastes to countries with inadequate capabilities is also meant to achieve the environmentally sound management of hazardous waste as the original aim of the Convention.

Text of the Convention, including documents adopted by the COP, also provide recognition to the environmentally sound management as the underpinning principle of the Basel Convention. A number of obligations under the Convention relates to environmentally sound management, for instance Article 4 paragraph 8 which states that any transboundary movement of hazardous wastes shall be required to be managed in an environmentally sound manner, and in conformity with principle of non-discrimination, the obligation should also apply to hazardous wastes destined for domestic management.[104] The aim of obligation to ensure adequate disposal facilities to the extent possible within the place of generation (Article 4 paragraph 2(b)) was to achieve environmentally sound management. This sentiment implies that the principle of least transboundary movement of hazardous waste (Article 4 paragraph 2(d)) is more significant under the Convention from ESM perspective.

Article 4 paragraph 10 obliges the generating states to ensure that their duty of environmentally sound management of hazardous waste they generate cannot be transferred to state of import or transit 'under any circumstances', implicating that the duty to ensure ESM is primarily assigned to generating states. The generating states are obliged to exert to the extent possible to ascertain the adequateness in state of import and/or transit, and perhaps can be argued as part of generating state's due diligence. Due to the importance of information from state of import, consent (Article 6 paragraph 3(a)) and written notification from state of import of the existence of contract between exporter and disposer is required before any transboundary movement (Article 6 paragraph 3(b)). The wording of this provision was left open, especially on "the existence of contract" since it

[104] *Id.* at 56.

provides no obligation of the state of export to verify and confirm the contents of contract, merely to confirm its existence. The Basel Declaration also confirms that environmentally sound management is the 'fundamental aim' of the Convention, stating that: "Reaffirm the fundamental aims of the Basel Convention, namely, the reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention, the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies."[105]

1.5 The Nature of Regulatory Scheme: Restrictive and Limited Ban

Regulatory scheme under the Basel Convention means an arrangement consisted of specific rules, standards and mechanisms to control the transboundary movements of hazardous wastes and other wastes. The Basel Convention regulates that any transboundary movement of hazardous wastes must strictly adhere to the Convention's regulatory scheme, generally referred as PIC mechanism, since any failure to observe the PIC mechanism is deemed illegal traffic (Article 9 paragraph 1)).The Convention provides that any state party under the Convention exercising the right to prohibit import must inform other Parties through Secretariat of the Convention (Article 4 paragraph 1(a) and Article 13 paragraph 2(c)) and the state of export shall prohibit such export if state of import has done so (Article 4 paragraph 1(b)), or if those prohibitions were adopted by group of states, belonging to an economic and/or political integration organization (Article 4 paragraph 2(e)). Without any prior consent of importing states, even if the hazardous wastes in question is not prohibited, state of export shall also prohibit such movement (Article 4 paragraph 1(c)).

The PIC mechanism is provisioned under Article 6 and 7 and also Annex VA

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[105] *The Basel Declaration on Environmentally Sound Management and Implementation of Decision V/33 on Environmentally Sound Management*, No. UNEP/CHW.6/2, ¶ 3 (Oct. 2002).

(notification document) and are carried out by designated competent authorities and focal point (Article 5). State of export has the duty to notify state of import and transit of any proposed transboundary movement of hazardous waste, be it conducted by the state itself or may require the generator or exporter to communicate the proposed export (Article 6 paragraph 1)). The notification document must be formulated from guidance in Annex VA including methods of disposal as specified in Annex IV, to offer sufficient information for state of import and transit to ascertain the nature of wastes and potential risks involved. Any subsequent export with the same nature and content, subject to prior consent and declaration by state of import and transit, might allow for general notification to be used for the duration of maximum 12 months (Article 6 paragraph 6, 7, and 8). Any response from state of import (Article 6 paragraph 2) and transit (Article 6 paragraph 4) regarding the proposed transboundary movement shall be in written form, whether to consent or prohibit such movement.

The Basel Convention regime thus established a regulatory scheme in which transboundary movements of hazardous wastes and other wastes are strictly regulated base on several element. *First*, it was based on the categorization of hazardous waste and other waste in accordance with their characteristics provided in Annex I, II and III of the Convention. *Second*, the regulatory scheme was also based on what kind of disposal it is destined for in accordance with Annex IV. *Third*, it was based on what can be generally considered as hazardous or non-hazardous waste in accordance with Annex VIII and IX. *Fourth*, it only allows transboundary movement to occur under strict control of PIC mechanism. As such, the Basel Convention's regulatory scheme is "restrictive" in nature, as it restricts any transboundary movement not observing its rules and standards. Furthermore, the restrictive characteristic is also evident through its prohibition of any transboundary movement to the Antarctic. However, it should be emphasized that the restrictive nature of Basel Convention's regulatory scheme allows transboundary movement of hazardous wastes only when adhering to the specific rules and standards set

by the Convention, provided it was aimed to achieve environmentally sound management of hazardous wastes.

The regulatory scheme also provides a partially prohibitive nature in the form of a limited ban. It prohibits any transboundary movement of hazardous wastes between Party to the Convention and non-Party. However, the obligation to prohibit a transboundary movement to/from non-Parties may be modified through bilateral or regional agreements or arrangements as provided in Article 11 (see Chapter 3). The term 'limited ban' is different from 'total ban' which was proposed by the developing countries. Total ban is considered as the prohibition of all exports of hazardous wastes, regardless of its destined operation, from Annex VII (developed) countries to non-Annex VII (developing) countries. Kummer argued that the introduction of this 'limited ban' had two objectives.[106] First, it is formulated to prevent states from engaging in hazardous waste trade with states, as non-Parties, do not adhere to the rules and standards established by the Basel Convention. Second, the exclusion of non-Party from trade regulated under the Basel Convention provides incentives for non-Party to accede to the Convention.

However, the Ban Amendment, recently entered into force on 5 December 2019, has substantial impacts on the nature of Basel Convention. The amendment, which is now included into the Convention as Article 4A, has prohibited any transboundary movement of hazardous wastes, both for final disposal and recovery, from Annex VII countries (defined as members of OECD, European Community (EC), Liechtenstein) to non-Annex VII countries. Thus, the prohibitive nature of Basel Convention's regulatory scheme has subsequently evolved by incorporating the total ban of hazardous waste from developed to developing countries, regardless of its destined operations.

The Ban Amendment thus has established a multi-approach of both restrictive

[106] KUMMER, *supra* note 18, at 61–62.

(allowing hazardous waste transfer only through PIC mechanism) and prohibitive nature of the regulatory scheme of Basel Convention. Perhaps, a superficial reading of this Ban Amendment may lead ones to conclude that it has totally changed the nature of the Convention. However, as this thesis will argue below, the entry into force of the Ban Amendment has strengthened the Basel Convention treaty regime instead with still the same purpose of achieving the environmentally sound management. Before examining the Ban Amendment, let us consider the foundational principle of ESM that continues to firmly underpin the Basel Convention from the very beginning.

CHAPTER 2.

ENVIRONMENTALLY SOUND MANAGEMENT AS THE FOUNDATIONAL PRINCIPLE OF BASEL CONVENTION

2.1 Introduction

The original aim of Basel Convention is for the environmentally sound management of hazardous waste. Its importance falls within what Bodansky considers as 'meta-rule',[107] which establish the context within which bargaining under the Basel Convention takes place to develop more specific norms, such as rules regarding PIC, partnerships or management and technical guidelines on the management and transboundary movement of hazardous wastes. As the foundational principle of Basel Convention's regime, ESM provides "goal orientations and causal beliefs" on transboundary movement of hazardous wastes.[108] This principle provides "general policy arena", or in other words, the framework within which the operationalization of Basel Convention should be practiced.[109] Many of the Convention's provisions place obligations to Parties to observe environmentally sound management principle within the regime. It was initially incorporated into the Convention aiming to be the 'standard of practice' not only to manage generated hazardous wastes, but also to permit any transboundary movement under the Convention, thus making any attempt to transfer without observing the principle *a priori* illegal.[110]

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[107] DANIEL BODANSKY, THE ART AND CRAFT OF INTERNATIONAL ENVIRONMENTAL LAW 203 (Harvard University Press 2010) elaborating the notion of meta-rule and how it facilitates broad standards into more specific norms/rules.

[108] Levy et al., *supra* note 27, at 273.

[109] *Id.*

[110] *Report of the Ad Hoc Working Group on the Work of the Third Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes*, No. UNEP/WG.189/3, 3 (Nov. 1988), [hereinafter Third Session Report]. The report states that: 'The aim of the Convention was to establish control measures that would....make it very difficult to get approval of movement of hazardous wastes with the goal of reducing to a minimum their transboundary movement and of ensuring that such movement is only permitted when it is more environmentally sound to dispose of waste farther than close to where it is generated.'; TOLBA & RUMMEL-BULSKA, *supra* note 64, at 103–8; Harvey Alter, *Environmentally Sound Management of the Recycling of*

The Basel Convention defines 'environmentally sound management' in Article 2 paragraph 8 as "taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes". The term 'management' of 'environmentally sound management' is further defined under Basel Convention in Article 2 paragraph 2 as "the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites", which suggest that all practices, from the generation of a hazardous waste to recycling, recovery and final disposal including its residues, and every process in-between should observe the environmentally sound principle. Together with Article 2 paragraph 8, it assumes an integrated life-cycle approach of ESM under Basel Convention, which involves strong control in every step/process of hazardous waste management, suggesting the pervasiveness of ESM principle.[111]

However, Basel Convention defines the crucial principle of ESM only in general terms, and has been subject to widely different interpretations and extensive criticisms.[112] Attempts on the interpretation or elaboration of 'environmentally sound management' has been made not only within the framework of Basel Convention's COP and its subsidiary working groups, but also by academia. Kummer, in her authoritative book on the Basel Convention, suggested that the aim of environmentally sound management can be achieved through a number of provisions offering "guidance for the management of hazardous wastes in accordance with the Convention's aims".[113] Others suggested that ESM principle depends on national interpretation based on its socio-economic situation,[114]

Hazardous Wastes in the Context of the Basel Convention, 29 RESOURCES, CONSERVATION AND RECYCLING 111 (May 2000).

[111] Iwona Rummel-Bulska, *The Basel Convention and Its Implementation*, *in* SOLID WASTE: ASSESSMENT, MONITORING AND REMEDIATION 133 (Irena Twardowska et al. eds., Elsevier B.V. 2004).

[112] KUMMER, *supra* note 18, at 57; Alter, *supra* note 74, at 112; David J. Abrams, *Regulating the International Hazardous Waste Trade: A Proposed Global Solution Note*, 28 COLUM. J. TRANSNAT'L L. 801 (1990); Handl, *supra* note 26; Mark A. Montgomery, *Travelling Toxic Trash: An Analysis of the 1989 Basel Convention*, 14 FLETCHER FORUM OF WORLD AFFAIRS 313 (1990).

[113] KUMMER, *supra* note 18, at 57–58.

[114] Shunichi Honda, *Environmentally Sound Management of E-Waste - Relationship between*

while another attempted to interpret it within the context of recycling after examining the Convention's documents and comparing it with UNEP's and other international treaties' documents.[115] The Basel Convention regime, acknowledging that ESM principle is varyingly interpreted and implemented,[116] also made attempts to further provide guidance by identifying principles closely linked to notion of ESM, establishing framework and introducing specific technical guidelines and toolkits for its implementation.[117]

Despite the rigorous interests and attempts in elaborating the principle, the discussions on the issue have not formally agreed on a binding, more specific elaboration on ESM. On the other hand, the developments under Basel Convention and changes in international community might influence its normative contents. Thus, it is important to re-examine the substantive contents of ESM principle to ascertain the nature of the principle and to identify whether through such developments the principle had gained new meaning. Accordingly, this chapter aims to review the development of the principle of 'environmentally sound management' within the Basel Convention and identify the substantive contents of the ESM principle. Through the chronological examination of the preparatory work of the Basel Convention, including UNEP's 1981 Montevideo Programme and 1987 Cairo Guidelines, Working Group Sessions and the Conference of Plenipotentiaries that adopted the Convention in 1989 and the relevant discussions under the Basel Convention in its COP until its 14th meeting in 2019, this chapter identifies documents having special legal value to assist in elaborating the contents of the ESM principle, in parallel with taking guidance from related provisions on ESM under the Convention. The normative contents of the ESM principle would be subsequently

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Environmentally Sound Management and Transboundary Movements, 878 ADVANCED MATERIALS RESEARCH 380 (Jan. 2014).

[115] Alter, *supra* note 110.

[116] *Framework for the Environmentally Sound Management of Hazardous Wastes and Other Wastes*, No. UNEP/CHW.11/3/Add.1/Rev.1 (Jun. 2013), [hereinafter ESM Framework].

[117] *Guidance Document on the Preparation of Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention*, No. UNEP/CHW.1/20/Rev.1 (Dec. 1992), [hereinafter Guidance Document]; *ESM Framework (UNEP/CHW.11/3/Add.1/Rev.1)*, *supra* note 116.

identified and will serve as the basis for this research in determining whether and to what extent the Convention can be considered as evolved.

2.2 The Genesis of Environmentally Sound Management Principle

2.2.1 Organization for Economic Cooperation and Development (OECD)

The issue of transfrontier movement of hazardous wastes had been a concern for international communities, including OECD, since mid-1970s, escalated by several driving factors (see Chapter 1). By February 1984, studies conducted under OECD Environment Committee which focuses on waste management policies were developed into a draft Decision and Recommendation on transfrontier movements of hazardous waste, adopted by OECD Council.[118] At the time, it was the first binding international instrument addressing the issue of transboundary movement of hazardous wastes, imposing binding obligations for OECD member states to control such wastes, and for assigned competent authorities to be provided with 'adequate and timely' information (paragraph I) while also providing a set of guiding principles to be applied in implementing the decision (paragraph II). The decision identifies the responsibility of the generator to ensure environmentally sound disposal or recycling, despite not specifically defines the term 'generator'. It also acknowledged that "that a number of OECD Member countries generate substantial amounts of hazardous waste and that a significant proportion of such waste is subject to transfrontier movements" (preamble paragraph 4), implicitly assumed that a number of its member states did not have adequate disposal or recycling facilities to fully managed the generated hazardous waste, thus arguing that more efficient and environmentally sound management in other country may serve as the standard to export those wastes (preamble paragraph 5) without defining the notion of 'effective and environmentally sound

[118] Decision-Recommendation on Transfrontier Movements of Hazardous Wastes No. C(83)180/FINAL (OECD Council Feb. 1, 1984).

management'.

The guiding principles recommended introduced several concepts to elaborate the obligations related to ESM, such as to monitor and control of hazardous wastes from generation to transport to disposal and recovery or 'cradle-to-grave' concept (paragraph 1), the introduction of concept of responsibility to re-import (paragraph 3(c)) and principle of non-discrimination (paragraph 4). Paragraph 5 and 6 introduced an early concept of prior notification while paragraph 7, 8, and 9 reiterated the right of member states to prohibit import. Based on the elaboration of principles in the Decision, ESM as intended by this decision might encompass the aim to protect 'man and the environment' (paragraph 1) and the core concept of 'cradle-to-grave' control of hazardous wastes from generation to transport to disposal and recovery, constituting the whole concept of management of hazardous wastes. It might also aim to establish interconnection between the ESM concept and prior notification requirements, requiring that one concept could not be considered as adequate without the other.

2.2.2 European Union (EU)

The EU has long developed its waste management policy, beginning with the four Environmental Action Programme (EAP) in 1973 as follow-through of the previous year's declaration on the environment by nine heads of states.[119] The EAP served as a fundamental reference for EU environmental policy for a period of time, and in term of waste management, established policy references of the prevention and reduction of non-recoverable waste (principle of waste minimization), the recovery, recycling or re-use whenever possible, and the proper management and safe disposal of non-recoverable waste

[119] Cf. TOM DELREUX & SANDER HAPPAERTS, ENVIRONMENTAL POLICY AND POLITICS IN THE EUROPEAN UNION (Palgrave Mar. 2016); Philippe Sands, *European Community Environmental Law: Legislation, the European Court of Justice and Common-Interest Groups*, 53 MOD. L. REV. 685 (1990); KUMMER, *supra* note 18, at 126–29.

(ESM principle) through its second and third programme. Based on these EAPs, several Directives were then adopted and related in addressing the issue of hazardous waste management in the EU: the 1975/1991 framework Directive on waste, the 1978/1991 Directive on hazardous waste, and especially the 1984 Directive on transfrontier shipment of hazardous waste.[120]

The 1975 Directive (which was amended in 1991) can be considered as the main document in regard to EU's waste management since it sets out and elaborated the general principles in waste management within the EU, affirming the principle of proximity and self-sufficiency within the EU and if possible within the member state of the EU, through close co-operation between states in adhering to the network of authorized waste disposal facilities. The network ensures the proximity to be observed on the basis of human and environmental health. The directive also required member states to have a waste management plan and may prohibit any transfer if it's in contravention to the plan, much similar to the national definition system of Basel Convention. Thus, throughout the early development, the link between national definition and ESM might also more important and defining than previously assumed.

2.2.3 United Nations Environment Program (UNEP)

Between late 1970s to early 1980s, the issue of hazardous wastes management didn't receive wider attention until UNEP's Governing Council adopted Montevideo Programme for the Development and Periodic Review of Environmental Law [hereinafter Montevideo Programme]on its 10th Session, held from 20-31 May 1982. [121] The programme

[120] Commission Directive 85/469/EEC of 22 July 1985 adapting to technical progress Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste, 85/469/EEC (1985).
[121] *Programme for the Development and Periodic Review of Environmental Law*, No. UNEP/GC/DEC.10/21 (Nov. 1981) adopted by UNEP's Governing Council on May 31, 1982, by Decision 10/21, UNEP/GC/DEC.10/21 (Nov. 1981). [hereinafter 1981 Montevideo Programme].

recommended three major subject areas of environmental law for the development of guidelines or principles which could lead to international agreements within UNEP framework and to cooperate with other relevant international organizations, including transport, handling and disposal of toxic and dangerous wastes. The objective of the inclusion of toxic and dangerous waste into one of major subject areas was "to prevent, reduce and control damage, and the risk thereof, from local and international transport as well as from handling and disposal of wastes that are toxic and dangerous to human health and to the environment." [122] Montevideo Programme raised early concept of the management of toxic and dangerous wastes to includes risk of damage to both human health and the environment, outlining the stages of management to include handling, transport, and disposal, both local and international. It did not differentiate hazardous wastes as final wastes and destined for recycling, instead relying on national strategies and environmental assessment mechanism to do so.[123] The inclusion of risk of damage on this document perhaps also a reference to the prevention principle of international environmental law.[124]

Another important document was the Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes [hereinafter The Cairo Guidelines],[125] adopted by Governing Council of UNEP on its 14th meeting in July 1987 through Decision GC.14/30.[126] The guidelines were prepared on the basis of common elements principles "derived from relevant existing bilateral, regional, and global

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[122] *Id.* at 4.
[123] *Id.* at 8 At the time, recycling industries also was not as developed as ten years later when deliberations on Basel Convention took place.
[124] Prior to the emergence of this principle in international legal instruments, the precautionary principles had featured in many national legal systems, such as West Germany. See PHILIPPE SANDS ET AL., PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 230 (Cambridge University Press 4th ed. Mar. 2018); K. von Moltke, *The Vorsorgeprinzip in West German Environmental Policy* 57 (Royal Commission on Environmental Polution, UK, HMSO 1988).
[125] *Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes*, No. UNEP/GC.14/17 (Apr. 1987) contained in Annex II to the document, UNEP/GC.14/17. [hereinafter Cairo Guidelines]. *Ad Hoc WG ESM Final Report (UNEP/WG.122/3)*, *supra* note 84, at 3.
[126] *UNEP GC-14 Report (UNEP/GC.14/26)*, *supra* note 83, at 26, [UNEP GC-14 Report].

agreements and national regulations."[127] It was intended to be non-binding, broad, general in terms and "do not claim to give specific guidance on the more technical aspects of dealing with hazardous wastes." The guidelines define 'management' of hazardous waste as "the collection, transport (including transfrontier movements), storage (including storage at transfer stations), treatment and disposal of hazardous wastes", adding 'generation' and 'transit' aspect to the 'management' which helped to elucidate the whole life-cycle of hazardous waste that should be addressed: generation, collection, transport, transit, treatment and disposal (including after care), a more comprehensive approach of 'management' from UNEP GC.10/24.

While both documents were non-binding, this inclusion nonetheless affects how the term 'management' of hazardous wastes was being interpreted at the time. The interpretation introduced by Cairo Guidelines allowed for a more comprehensive approach, extending the responsibility to the point of generation and arguably acknowledging that transit states (in case of transfrontier movement) do have rights regarding the issue. Another result emerged from the Cairo Guidelines was the introduction of source (point of generation) reduction principle of waste into international environmental law, often utilized in municipal waste management.[128] By this point, ESM as a concept was evolving by adding new threshold in ESM practice to include those two concerns as a principle of integrated life-cycle of hazardous waste management.[129] The document also confirmed a changing perspective towards wastes and hazardous wastes, from wastes as materials required to be disposed to be wastes as materials need to be regulated. The 'control over

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[127] *Cairo Guidelines (UNEP/GC.14/17)*, *supra* note 125, at 3.
[128] At the time, despite widely acknowledged that source reduction should take highest priority, there were some oppositions to drastic measures and changes in favor of recycling and disposal economic value. See, e.g., Katy Wolf, *Source Reduction and the Waste Management Hierarchy*, 38 JAPCA 681 (May 1988).
[129] The generally accepted hierarchy of integrated waste management is as follows: waste avoidance; reduction of quantities and toxicity at the source; recycling, resource recovery, and reuse; and environmentally sound disposal. See e.g., Jonathan Krueger, *What's to Become of Trade in Hazardous Wastes? The Basel Convention One Decade Later*, 41 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 10 (Nov. 1999).

disposal' approach can be considered as further elaboration of the 'cradle to grave' approach of OECD Council's Decision which recognized several principles pertinent to hazardous waste management, such as principle of proximity, sovereignty, duty to re-import, non-discrimination, and prior informed consent principle.[130]

The Cairo Guidelines proved to be an important legal document in interpreting the concept of 'environmentally sound management', since it contains and elaborates a number of important principles in regard to environmentally sound management of hazardous wastes, be it domestic or transboundary, by recommending specific measures to be taken by states within their jurisdiction. It incorporates the principle of waste minimization (paragraph 2(a) and 7(a)) especially through low-waste technology and encouraging its development (paragraph 4(b) and 7(c)), non-discriminatory control of hazardous waste (paragraph 3), international cooperation (paragraph 4) including transfer of technology (paragraph 5) for the 'achievement', 'improvement', and 'promotion' of ESM. The guidelines designated damage of hazardous wastes to human health and the environment as pollution,[131] and also re-affirms existing customary international law rules on transboundary pollution in regard to waste management: they set out duty of prior notification (paragraph16) and consultation in good faith (paragraph 17) to "States concerned", be it prospective transit states or import states, and equal access for nationals of a said state to relevant administrative and judicial proceedings in the state of origin (paragraph 18). Another provision in the Guidelines requires that in the absence of bilateral, regional or multilateral arrangements, PIC should be observed and any transport without observance of this principle should be unlawful (paragraph 26), and in the event that a state concerned opposes such transport while the waste shipment has already left exporting state, the Guidelines introduces a duty to re-import those wastes to the exporting state and they

[130] Decision-Recommendation on Transfrontier Movements of Hazardous Wastes No. C(83)180/FINAL 5–6 (OECD Council Feb. 1, 1984).
[131] KUMMER, *supra* note 18, at 39.

should not object (paragraph 27). Specific measures to ensure environmentally sound management were introduced such as establishment of competent national authorities and focal point, provision on safety standards of hazardous wastes management, including transport document standardization. Basel Convention would borrow many of the principles and provisions set out in Cairo Guidelines, even some areas adopted in Basel Convention are *in toto* to the language of the Guidelines.[132]

2.3 Developments on Environmentally Sound Management Principle under Basel Convention

2.3.1 Normative development on ESM

Article 4 paragraph 8 of the Basel Convention states that "Technical guidelines for the environmentally sound management of wastes subject to this Convention shall be decided by the Parties at their first meeting". This provision was reiterated in Resolution 8, also adopted during the Conference of Plenipotentiaries, which calls for the “establishment of a technical working group to elaborate technical guidelines for the environmentally sound management of wastes” to be controlled and regulated under Basel Convention. Accordingly, it mandates Executive Director of UNEP to establish a technical working group (TWG) to prepare draft technical guidelines for ESM of wastes, to be considered and adopted at COP-1.

A concurrent relevant initiative is the elaboration of 'International Strategy and Action Programme for the Environmentally Sound Management of Hazardous Wastes' which was developed under the request of United Nations Conference on Environment and Development (UNCED) Preparatory Committee in 1990,[133] leading to a meeting being

[132] Gwam, *supra* note 62.
[133] PrepCom Decision 1/22 (Section I, ¶ 3), 31 August 1990 (Official Records of the UN General Assembly, 45th Session, Supplement No. 46(N45/46), Annex I.

convened under the auspice of UNEP Governing Council in 1991.[134] The elaboration influenced the development of discussion of Agenda 21 Chapter 20 of Environmentally Sound Management of Hazardous Wastes, Including Prevention of Illegal International Traffic in Hazardous Wastes, and proposed of 'strategy elements' to be considered in implementing the environmentally sound management of hazardous waste.[135] The strategy elements reaffirm the core principles of ESM in the Basel Convention, as stated in its objective: "Within the framework of integrated life-cycle management, prevent to the extent possible and minimize the generation of hazardous wastes, treat and dispose of the wastes in such a way that they do not cause harm to health and the environment, and eliminate or reduce transboundary movements of hazardous wastes."[136]

During the 1st session of TWG ESM, many delegates voiced their concerns on the interpretation of the term "environmentally sound management" of hazardous waste, which was a core concept in the convention but defined only in broad terms.[137] A call on how to progress towards a common interpretation and associated criteria was then raised, setting the trajectory of the development on defining ESM to also include a set of criteria to its interpretation, reflecting the concerns of Parties to the Conference. Such concerns were not shared by all; rather it was the majority of the Parties, comprises of mostly developing countries. The TWG would subsequently developed several elements to be considered for the development of a code of practice or guidelines for the environmentally sound management of hazardous wastes: a) prevention and minimization of waste generation; b) identification and assessment of hazardous wastes, other wastes and non-hazardous wastes, c) reduction of transboundary movements of hazardous wastes, d) substantiation of reasons

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[134] *Report of the Experts Meeting on an International Waste Management Strategy*, No. UNEP/CHW/WG.2/1/3, 3 (Dec. 1991).
[135] *Expert Strategy Meeting Report (UNEP/CHW/WG.2/1/3)*, *supra* note 134. See also its Annex on Strategy Elements.
[136] *Id.*; See also Alter, *supra* note 110; KUMMER, *supra* note 18, at 59.
[137] *Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 1st Session*, No. UNEP/CHW/WG.4/1/6, ¶¶ 11–12 (Feb. 1992).

for export, e) various aspects of recycling, treatment and disposal facilities, f) examination of priority waste streams, g) financial aspects, and h) capacity/capabilities of competent authorities.[138] Some of these elements, again, affirmed core principles of Basel Convention while also set considerations associated with interpretation of ESM. The meeting also expressed opinion that Annex IV of Basel Convention contains disposal and recycling operations most commonly employed during that time and it "should not be interpreted as indicating a preferred or possibly accepted method of disposal".

The 2nd session of TWG ESM saw the center of discussion on the development of a framework document and technical guidelines on several waste streams. The group recommended a structure of framework document detailing "those matters to be taken into consideration in reaching decisions in respect to requirements of the Basel Convention",[139] implying that since one of the underlying requirements of Basel Convention is environmentally sound management, any discussion related to the issue should refer to the framework document's principles and elements for consideration. The structure includes a section on a set of selected principles, listed on Annex C, including: 1) polluter-pays principle; 2) integrated life-cycle principle; 3) precautionary principle; 4) source reduction principle; 5) self-sufficiency principle; 6) proximity principle; 7) integrated pollution control principle; 8) least transboundary movement principle; 9) standardization principle; and 10) State sovereignty principle while noting that application of these principles will vary from country to country in view of their social, political and economic structure.

The Interim Secretariat of Basel Convention included the technical guideline as agenda item 6(I) on COP-1, held in Piriapolis on 3-4 December 1992, listed as "Adoption of the technical guidelines for the environmentally sound management of wastes subject

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[138] *Id.* ¶ 22.
[139] *Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 2nd Session*, No. UNEP/CHW/WG.4/2/2, 2 (May 1992).

to the Convention (Article 4, paragraph 8) as doc. UNEP/CHW.1/20. The documents were later adopted through decision BC-1/19 as 'provisional technical guidelines' forming the basis for a formal document, subject to further consideration taking into account future relevant priorities and consideration on economic aspects of disposal and recovery operations as well as preventive measures.[140] In order to achieve this aim, the decision also contains operative paragraph 4 which extend the mandate of TWG ESM to review the revised provisional documents and to prepare technical guidelines for other operations and waste streams. Based on this mandate, TWG ESM revised the provisional framework document (UNEP/CHW.1/20) on its 4th session to be finalized, accommodating recommendations and comments made on and after COP-1 in each of the operative agenda items on technical guidelines, and proposed to be adopted by the COP-2.[141] The revised draft framework documents were later discussed as agenda item 4(i) and confirmed for adoption by the COP-2 of Basel Convention, removing its provisional nature.[142]

2.3.2 Practical development on ESM

During the 4th session of Open-ended Ad Hoc Committee for the Implementation of the Basel Convention held in 1999,[143] the Chairman informed the committee that the

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[140] *COP-1 Report (UNEP/CHW.1/24)*, *supra* note 56, at 35.
[141] The activities were described on new paragraph 2bis of the revised framework document. See *Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 4th Session*, No. UNEP/CHW/WG.4/4/6 (Jun. 1993).
[142] There is a naming discrepancy of the document. COP Decision BC-II/13 adopted it as 'Framework Document on the Preparation of Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention and the four Technical Guidelines' often shortened as framework document (UNEP/CHW.1/20 and its revised version UNEP/CHW.1/20/Rev.1). Cf. *Report of the Second Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.2/30 (Mar. 1994), [hereinafter COP-2 Report]. *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117.
[143] *Report of the Fourth Session of the Open-Ended Ad Hoc Committee for the Implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, No. UNEP/CHW/C.1/4/26, 26 (Jun. 1999); The Ad hoc Committee was proposed by the President of COP-4 and later adopted by the plenary by acclamation. See *Report of the Fourth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.4/35 (Feb. 1998), [hereinafter COP-4 Report].

Expanded Bureau on its 4th meeting has recognized the need for a sub-group to consider the future challenges for the next decade of the Basel Convention.[144] The sub-group presented the progress into two important aspects in the development of ESM: draft declaration on the environmentally sound management of hazardous wastes and the agenda of the Basel Convention for the next decade and invited comments from Parties to be considered during small drafting group and later presented the draft declaration and draft decision during 2nd session of preparatory segment of COP-5.[145] During the discussion, several representatives proposed that the draft declaration and decision should reflect waste minimization principle and waste handling, especially through cleaner production and technology as specific instrument.[146] The discussion resulted in two outcomes: the Basel Declaration, [147] adopted through decision BC-V/1 and decision BC-V/33 on Environmentally Sound Management which elaborates the next decade's agenda in improving ESM operationalization and Basel Declaration's implementation.

The declaration made by the ministers and head of delegation from Parties in general includes assertion of a vision on ESM (paragraph 1),[148] confirmed the achievement during the first decade of the Convention (paragraph 2), reaffirmed the fundamental aims of Basel Convention (the least transboundary movement of hazardous waste, prevention and waste minimization – paragraph 3), support for Rio Declaration and Agenda 21 (paragraph 4), promotion for adoption of Basel Convention (paragraph 5), support for the development and implementation of pilot project of cleaner technology (paragraph 7) and on financial contribution (paragraph 8). Attention should be focused on paragraph 6, which can be

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[144] *Open-Ended Ad Hoc Implementation Committee 4th Sess. Report (UNEP/CHW/C.1/4/26)*, *supra* note 143, ¶ 3.
[145] *Draft Declaration and Draft Decision on Environmentally Sound Management*, No. UNEP/CHW.5/23 (Oct. 1999), [hereinafter Draft Declaration on ESM].
[146] *COP-5 Report (UNEP/CHW.5/29)*, *supra* note 102, ¶¶ 90–94.
[147] Annex II to the *COP-5 Report (UNEP/CHW.5/29)*, *supra* note 102.
[148] The vision is rather political. Some delegates, during the discussion, also voiced concern that the next decade's challenge, among them, was to concert a political vision on the practical implementation of ESM. See *id.* ¶ 117.

considered the core intention of the declaration. The wording of this paragraph should be taken into account; there is a consensus on the urgency to shift focus of activities ("*recognize the need to focus our activities*"), a time-limit of said activities ("*within the next decade*"), which is specific in nature ("*specific actions*") and it should be implementation-oriented ("*to promote the implementation of the Convention and its amendments worldwide*").

Accordingly, if the paragraphs are to be examined, the majority of them are operational in nature, such as implementation of waste minimization (paragraph 6(a)), active promotion and use of cleaner technology (paragraph 6(b)), further reduction of transboundary movement of hazardous wastes (paragraph 6(c)), prevention and monitoring of illegal traffic (paragraph 6(d)), capacity-building (paragraph 6(e)), development of regional centers (paragraph 6(f)), information exchange (paragraph 6(g)), and cooperation and partnership (paragraph 6(h)). Paragraph 6(i) was the exception since it mandates for the development of compliance mechanism.[149] The declaration implied that the approach taken and focus of the discussion under Basel Convention, especially on the development of ESM would be shifted to activities and specific actions on implementation.

The Basel Declaration can be considered to be an important step during the 10th anniversary of Basel Convention, as the declaration re-focus for a broader scope of the Convention. The broadening of this focus was not only on the issue of transboundary movement of hazardous wastes (which occupied the discussions on COP-1 to COP-4), but also to cover domestic waste management, in close relation to the principle of waste minimization and close-to-source. The declaration reaffirms what ESM encompasses

[149] This paper will not examine the development of compliance mechanism under Basel Convention since it does not fall within the scope of this study on environmentally sound management. For studies on compliance mechanism, see generally Akiho Shibata, *The Basel Compliance Mechanism*, 12 REV. EUR. COMP. & INT'L ENVTL. L. 183 (Jul. 2003); Akiho Shibata, *Ensuring Compliance with the Basel Convention - Its Unique Features*, *in* ENSURING COMPLIANCE WITH MULTILATERAL ENVIRONMENTAL AGREEMENTS: A DIALOGUE BETWEEN PRACTITIONERS AND ACADEMIA 69 (Ulrich Beyerlin et al. eds., Martinus-Nijhoff 2006).

including the ESM priority on waste minimization instead of allowing transboundary movement of hazardous waste utilizing ESM as the minimum standards. Paragraph 1 explicitly stated that ESM "emphasizing the minimization of such wastes and the strengthening of capacity-building".[150] Thus, the Basel Declaration marked a change in behavior among the party members to shift their focus on the operationalization of ESM.

The Secretariat, taking mandate from the Basel Declaration through BC-V/33, prepared and revised the draft of strategic plan after consultation with the Expanded Bureau and was later submitted to the Intersessional Working Group of Technical and Legal Working Group.[151] The intersessional working group has mandate to review and improve the draft by examining options to make the strategic plan operational while also elaborate the monitoring and review mechanism of proposed actions, with emphasis on implementable strategy.[152] After much deliberations through convention's organs, the draft strategic plan was submitted and subject for consideration by Parties of COP-6 during its 1st session.[153] The Conference adopted decision VI/1 on the strategic plan for the implementation of the Basel Convention (to 2010), and decision VI/2 on project proposals under the strategic plan for the implementation of the Basel Convention. The Convention would later adopt the revised draft strategic plan by decision BC-VII/1 during COP-7 in 2004.[154]

The Basel Declaration, Decision BC-V/33, and the strategic plan including its action table constitute a foundation for the development of ESM for 2010. The declaration set the

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[150] See Decision BC-V/33 ¶1, annexed to *COP-5 Report (UNEP/CHW.5/29)*, *supra* note 102.
[151] *Draft Strategic Plan for the Implementation of the Basel Convention (2000-2010)*, No. UNEP/CHW.6/3/Add.1, 1 (Nov. 2002).
[152] *Id.* ¶¶ 3–4.
[153] Cf. *Strategic Plan for the Implementation of the Basel Convention (2000-2010)*, No. UNEP/CHW.6/3 (Nov. 2002), [hereinafter Strategic Plan 2000-2010]. *Draft Strategic Plan (UNEP/CHW.6/3/Add.1)*, *supra* note 151; *BC-V/33 Implementation Report (UNEP/CHW.6/2)*, *supra* note 105, [hereinafter BC-V/33 Implementation Report].
[154] Decision BC-VII/30, annexed to *Report of the Seventh Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.7/33 (Jan. 2005), [hereinafter COP-7 Report].

framework, which was provided with more operationalization through decision V-33 and subsequently elaborated through the strategic plan. The wording of paragraph 1 can be read into two parts. First, "to asserts a vision" implies a conviction, or strong consensus within which there was no reservation of the Parties on one dimension on how ESM should be developed into the decade. Second part of the reading acts as to confirm the underlying principle of waste minimization in the strategic plan to conform to the fundamental aim of Basel Convention, while "the strengthening of capacity-building", correspond with the vision mentioned earlier, that is to assist the Parties which still needs improvement and international assistances.

During COP-9, the President of the Bureau delivered a statement on the possible way forward on the Ban Amendment which reaffirmed the objectives of the Ban Amendment and called countries to explore means by which these objectives could be achieved.[155] Indonesian government and Switzerland government answered the call by agreeing to establish an informal forum which was referred as Indonesia-Swiss Country-led Initiative [hereinafter CLI].[156] The initiative decided to convene three times before COP-10 with the initiative comprised of three main block of discussions: promoting entry into force of the Ban Amendment; promoting environmentally sound management; and other elements, *inter alia* improving legal clarity, illegal traffic, assisting vulnerable countries, and capacity building.[157]

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[155] Annex of Decision BC-IX/26 contained in *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Ninth Meeting*, No. UNEP/CHW.9/39 (Jun. 2008), [hereinafter COP-9 Report].

[156] *Report of the Open-Ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Seventh Session*, No. UNEP/CHW/OEWG.7/21 (May 2010); On the establishment and information document, see *Indonesian-Swiss Country-Led Initiative to Improve the Effectiveness of the Basel Convention*, No. UNEP/CHW/OEWG.7/7 (Feb. 2010); *Information Document for the Seventh Session of the Open-Ended Working Group, 10-14 May 2010*, No. UNEP/CHW/OEWG/7/INF/8 (Mar. 2010).

[157] The related documents produced and circulated during the meetings can be accessed through *Country Led Initiative Meetings*, BASEL CONVENTION, http://www.basel.int/Implementation/LegalMatters/CountryLedInitiative/Meetings/tabid/2680/Default.aspx (last visited Jun. 29, 2020).

One of the recommendations of the integrated draft decision put forward by CLI was on the development of a framework of requirements for environmentally sound management, which recommends that an expert technical group be established, taking into account regional balance to be mandated to further disseminate existing work, develop a new framework on ESM and investigate ways in which ESM standards might be linked to transboundary movements of hazardous wastes.[158] This draft decision was later adopted as decision BC-10/3, consisting of seven parts including addressing the entry into force of the Ban Amendment and developing guidelines for environmentally sound management.[159] The Conference also adopted decision BC-10/3, in which part B addresses ESM by recalling Article 4 paragraph 2(a) to (d) of the Convention, affirming that some provisions of the Conventions give guidance on interpreting the ESM to be in accordance with the Convention's aims.[160]

2.3.3 Documents having special legal values in elaborating ESM

2.3.3.1 Special legal value of the documents

The generality of definition of ESM under Article 2 paragraph 8 remains subject of wide interpretation without any established and generally accepted working interpretation of the term.[161] Beside the provisions offering insights to interpretation efforts, the existence of the Guidance Document (UNEP/CHW.1/20/Rev.1) and ESM Framework (UNEP/CHW.11/3/Add.1/Rev.1) might provide normative criterion with which the language of the article may be interpreted and operationalized, especially since it incorporates principles accepted (to varying degrees) in various multilateral environmental

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[158] *Indonesian-Swiss Country-Led Initiative (CLI) to Improve the Effectiveness of the Basel Convention: Explanatory Note*, No. CLI/2010/3/2 (Sep. 2010).
[159] BC-10/3, annexed in *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Tenth Meeting*, No. UNEP/CHW.10/28 (Nov. 2011).
[160] KUMMER, *supra* note 18, at 57; Alter, *supra* note 110, at 113–14; Krueger, *supra* note 13.
[161] KUMMER, *supra* note 18, at 2–3.

agreements (MEAs) and were purposed to "address the need for guidance in developing national or regional hazardous waste management strategies as well as in managing such wastes in an environmentally sound way".[162]. The Guidance Document indeed claims that the principles were not absolute and not to define "ESM", yet it also argues that it contains 'special legal value' as guiding document since it was "not only developed by highly specialized experts from various countries represented at the TWG, but were also later adopted by the COP to the Basel Convention".[163]

How particular is this 'special legal value' expressed in these documents? In order to examine what this term suggests, this section first examines what are the implication from its methods of adoption by COP consensus decision. Rule 40 paragraph (1) of the Rule of Procedure of the Meeting states that "the Parties shall make every effort to reach agreement on all matters of substance by consensus".[164] The use of mandatory term 'shall' indicate that by defaults, COPs have to operate on 'all matters of substance'. Consequently, party members need to advocate and concert together, even compromise within this law-making process, which is political in nature. Another reading of the rule explicitly assumes that any decision adopted through consensus is *agreement*, which implies that Parties' consent is presumed,[165] unless no agreement is reached and decision is "taken by a two-thirds majority vote of the Parties present and voting, unless otherwise provided by the Convention". It is rarely opted by the COP, with example of such decision is the decision BC-III/1 or Basel Ban Amendment. The implication of such reading of the rule and examining the development of COPs which rarely opt for majority vote, is that the practice of decision-making by consensus as agreement is well established on its actual operational

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[162] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117.
[163] *Id.* pt. Introduction.
[164] See Rule 40, *Rules of Procedure for the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, No. UNEP/CHW.1/3/Rev.1 and UNEP/CHW.1/3/Rev.1/Corr.1 (Dec. 1992).
[165] Jutta Brunnée, *COPing with Consent: Law-Making Under Multilateral Environmental Agreements*, 15 LJIL 1, 19 (2002).

under Basel Convention treaty regime.[166] The decisions' wording on BC-I/19 and BC-II/13 offers hints at the legal drafting technique employed by the MOP (rather than individual Parties) in reaching an agreement regarding the Guidance Document.[167] The MOP employs verbs of "decides" in BC-I/19 and "confirms adoption" in BC-II/13, both of which are common verbs of decisions under COP to the Basel Convention to convey 'agreement reached by plenary consensus' in MOP, with one rather distinct technique employed was the use of verb "agree" in the adoption of a rather contentious decision on the interpretation of Article 17 paragraph 5.[168]

The particularity of these documents as having 'special legal value' should also be examined within the meaning of subsequent agreements and/or practices of Article 31 paragraphs 3(a) and 3(b) of Vienna Convention on the Law of Treaties.[169] Attempts to determine whether adoption by consensus constitutes 'agreement' as intended by Article 31 paragraphs 3(a) and 3(b) are extensive.[170] However, a number of commentators concluded that the boundaries between both considerations are fluid, and in need to be examined carefully based on the actuality and consistency of practices within the treaty regime.[171] As previously argued, in the context of Guidance Document, the practice of adoption by consensus has a strong case as being an agreement of the Parties. This

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[166] The issue of legal evaluation of consensus on an actual operational level in treaty regime was suggested on Prof. Shibata's paper as potential broader implication of ICJ's judgment on Whaling in the Antarctic. See Shibata, *ICRW as an Evolving Instrument*, *supra* note 49.

[167] Concerns regarding this distinction of 'will of the organ' and 'will of the party members' was also raised in the 'Whaling in the Antarctic' trials and subsequently its judgment, as observed in *id.* at 132–33.

[168] Decision BC-10/3, annexed in *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.

[169] *Vienna Convention on the Law of Treaties*, 1155 UNTS 331 (Jan. 1980), [hereinafter VCLT].

[170] Cf. Brunnée, *supra* note 165, at 31; Shibata, *ICRW as an Evolving Instrument*, *supra* note 49, at 310; Robin R. Churchill & Geir Ulfstein, *Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law*, 94 AMERICAN JOURNAL OF INTERNATIONAL LAW 623 (Oct. 2000); Ellen Hey, *Sustainable Development, Normative Development and the Legitimacy of Decision-Making*, 34 NETHERLANDS YEARBOOK OF INTERNATIONAL LAW 3, 16 (Dec. 2003); Annecoos Wiersema, *The New International Law-Makers - Conferences of the Parties to Multilateral Environmental Agreements*, 31 MICH. J. INT'L L. 231, 247 (2009–2010); Tom Delreux, *Multilateral Environmental Agreements: A Key Instrument of Global Environmental Governance*, *in* EUROPEAN UNION EXTERNAL ENVIRONMENTAL POLICY: RULES, REGULATION AND GOVERNANCE BEYOND BORDERS 19 (Camilla Adelle et al. eds., Springer International Publishing 2018).

[171] See also Churchill & Ulfstein, *supra* note 170, at 641; Shibata, *ICRW as an Evolving Instrument*, *supra* note 49, at 310; Brunnée, *supra* note 165, at 31–32.

argument may also draw consideration from ICJ's *Whaling* Judgment, which in paragraph 46 states that "These recommendations, which take the form of resolutions, are not binding. However, when they are adopted by consensus or by a unanimous vote, they may be relevant for the interpretation of the Convention", arguing in paragraph 83 that it can be "regarded as subsequent agreement to an interpretation (or) as subsequent practice establishing an agreement of the Parties regarding the interpretation of the treaty within the meaning of subparagraphs (a) and (b), respectively, of paragraph (3) of Article 31 of the Vienna Convention on the Law of Treaties". Due note, however, that the judgment requires such observation to first establish that the decision has the support of all Parties and such practices are consistently undertaken within such treaty regime, as is the case with the adoption of Guidance Document (and the interpretation of Article 17 paragraph 5 under Basel Convention) and the weight of such adoption of decisions within its COPs. Thus, these documents indeed contain 'special legal value' in two manners: they were adopted by COP decision which constitute as *agreement* of the Parties, and that they are relevant instruments containing normative criterion in interpreting the term ESM.

2.3.3.2 The 1992 Guidance Document

Document UNEP/CHW.1/20/Rev.1 is an important document in the normative development and interpretation of 'environmentally sound management' of hazardous wastes subject to Basel Convention, now titled "Guidance Document on the Preparation of Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention". The adopted document explains the Convention's approach in providing guidance and operationalization of the concept of environmentally sound management and intended to be used as a reference in developing strategies on national level, having "special legal value" expressed in the document since the documents were

developed by TWG representing various Parties and adopted by COP.[172] Indeed, TWG ESM acknowledges the requirement of a 'firm legal ground' for Parties to refer to in regulating hazardous wastes arising within or imported into the country, which can be understood as implying the guidance document as one.[173] The guidance document affirms the nature of Basel Convention as a regulatory scheme, which establish its function 'to regulate' the transboundary hazardous wastes. It set the criteria to assess ESM and acknowledging countries' obligation to avoid or minimize waste generation and to ensure the availability of adequate facilities for their waste, so as to protect human health and the environment.[174] The document contains concept of 'clean production methods' to observe the principle of waste minimization and integrated life-cycle,[175] and introduces the concept of 'Duty of Care', which requires 'all Parties in the waste management chain to have regard for the proper observance of good waste management practice throughout the chain' to address the competence of persons involved in the waste management cycle.[176]

Perhaps the most important section in interpretation process of ESM under Basel Convention is that the guidance document elaborates eleven principles to be considered in waste and hazardous waste management which were based on the TWG ESM 2nd session report. It acknowledges that these principles are observed by 'many countries' to varying degrees, despite stating that it's not absolute and was not meant to replace the principles agreed to in the Basel Convention nor to define 'environmentally sound management'. The document states that the inclusion of the principles was aimed to pool consensus on common interpretation of which merit countries' consideration in observing the principle of environmentally sound management, as previously called by many delegates during the 1st session of TWG ESM. This section mentions eleven principles to be considered: [177] 1)

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[172] See the opening paragraph of *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117.
[173] *Id.* ¶ 3.
[174] *Id.* ¶ 9.
[175] *Id.* ¶¶ 5–6.
[176] *Id.* ¶ 18.
[177] *Id.* ¶ 10.

the source reduction principle; 2) the integrated life-cycle principle; 3) the precautionary principle; 4) the integrated pollution control principle; 5) the standardization principle; 6) the self-sufficiency principle; 7) the proximity principle; 8) the least transboundary movement principle; 9) the polluter pays principle; 10) the principles of sovereignty; and 11) the principle of public participation.

Despite no formal adoption of any interpretation of ESM,[178] the principles suggested in the Guidance Document may act as the guiding principles, since many of those principles were widely accepted in international environmental law. The Guidance Document are also important in two aspects. First, it confirms the 'control-over-disposal' approach in regard to hazardous wastes management elaborated in the Cairo Guideline and Agenda 21 Chapter 20.1, which promotes observance of waste management hierarchy,[179] including waste prevention and minimization, Second, the document also reiterates principles previously set in authoritative documents on environmentally sound management: The Cairo Guidelines and Agenda 21 Chapter 20.7(a), affirming that pertinent to ESM, these principles should not be separated. The guidance document subsequently referred several times under the work of Basel Convention, most notably during the drafting of Guidance elements for bilateral, multilateral or regional agreements, despite its development was concluded by a decision on COP-7.[180]

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[178] Such technique in adopting a formal interpretation is possible under Basel Convention, confirmed through the adoption of an interpretation regarding Article 17 paragraph 5 which will be discussed on Chapter 3. See BC-10/3, annexed to *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.

[179] Some experts are in view that this concept is interchangeable with the notion of "integrated life cycle of waste". See e.g., Iwona Rummel-Bulska, *The Basel Convention: A Global Approach for the Management of Hazardous Wastes*, 24 ENVIRONMENTAL POLICY AND LAW 13 (1994); SANDS ET AL., *supra* note 124, at 610–13; *Agenda 21: Programme of Action for Sustainable Development, Rio Declaration on Environment and Development, Statement of Forest Principles: The Final Text of Agreements Negotiated by Governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992, Rio de Janeiro, Brazil*, No. U.N. Doc. A/CONF. 151/26/Rev.1 (Aug. 1992), [hereinafter Agenda 21].

[180] The consensus to conclude deliberations on this document was agreed through Decision OEWG-II/3, annex to *Report of the Open-Ended Working Group of the Basel Convention on the Work of Its Second Session*, No. UNEP/CHW/OEWG/2/12 (Dec. 2003) The decision was later submitted for COP-7 and subsequently adopted through BC-VII/36.

2.3.3.3 The 1999 Basel Declaration

The 1999 Basel Declaration on Environmentally Sound Management was adopted through acclamation during the last session of the COP-5. The Conference adopted this declaration on the same session with the adoption of decision BC-V/33 on the environmentally sound management. The declaration sets the objectives of environmentally sound management to be achieved under the Basel Convention for the next decade and translated into actionable programs with the BC-V/33. Paragraph 1 asserts that environmentally sound management is accessible to all Parties and should emphasize the minimization of hazardous and other wastes. Strict control system was referred in paragraph 2 as a significant achievement, along with, *inter alia*, the Ban Amendment and the waste lists and model legislation, indicating that there were views within the Conference that the Ban Amendment was considered as complimenting the strict control system (which is referred on this study as regulatory scheme). Paragraph 4 reiterates commitment to the Rio Declaration and Agenda 21 while paragraph 5 aims for the Convention to achieve its universality statues by promoting the accession or ratification of the Convention and its amendments.

Perhaps paragraph 3 and 6 of the Basel Declaration elaborate the most important points in regard to the development of environmentally sound management principle. Paragraph 3 reaffirms that "the fundamental aims of the Basel Convention, namely, the reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention, the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies". Furthermore, paragraph 6 recognizes that, in order to achieve environmentally sound management, the Conference needs to enhance, *inter alia,* "prevention, minimization, recycling, recovery and disposal of hazardous and other wastes" (paragraph 6(a)), and "further reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention" (paragraph 6(c)).

The 1999 Basel Declaration is thus important in further elaborating the environmentally sound management as the foundational principle of the Convention since it reaffirms the aim of the Convention (minimization of waste generation and transboundary movements). The Declaration also acknowledges that operationalizing the environmentally sound management should focus on the observance and implementation of waste hierarchy which favor prevention and minimization over generation, and recycling over disposal. Since the Basel Declaration was primarily stressed on the importance of implementing the environmentally sound management, the focus to observe waste management hierarchy might indicate that waste hierarchy is an important context in understanding the environmentally sound management as the foundational principle. Its rather focus on the prevention and minimization aspect (as indicated in paragraph 1, 3, 6, 7, and 8) is another indication that the environmentally sound management is primarily achieved through prevention and minimization of waste generation and transboundary movement.

2.3.3.4 The 2010 ESM Framework

During the COP-10, the party members adopted an omnibus decision BC-10/3 which aims to, *inter alia*, promoting entry into force of the Ban Amendment, promoting environmentally sound management, and other elements.[181] The decision adopted a mandate closely related to the development of ESM in Part B paragraph 2 which mandates the completion of a framework for the environmentally sound management of hazardous wastes and other wastes.[182] It also mandates a Technical Expert Group [hereinafter TEG-ESM] to develop a framework for the environmentally sound management of wastes.[183]

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[181] *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, ¶ 54.
[182] *ESM Framework (UNEP/CHW.11/3/Add.1/Rev.1)*, *supra* note 116.
[183] Decision BC-11/1, annexed to *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Eleventh Meeting*, No. UNEP/CHW.11/24 (Jul. 2013).

The ESM framework was built upon previous deliberations, including the 1992 Guidance Document, and contains 'guiding principles' and 'a common understanding' of what ESM encompasses. The ESM Framework aimed to, *inter alia,* to establish a common understanding of what ESM encompasses (paragraph 8(a)) and describes the linkages between ESM and transboundary movements (paragraph 8(e)).

The 2010 ESM Framework recognizes that environmentally sound management is understood and implemented differently by Parties within the context of the Basel Convention. It is also not readily available in many countries, especially those without effective legal systems, government oversight and other infrastructure to protect the occupational health and safety of workers, communities and the environment.[184] As such, the framework includes a list of existing resource documents as an initial reference for stakeholders in its efforts to implement the environmentally sound management and to indicate where further guidance may be found, both of which are listed on Annex II of the document.

It is important to note that the ESM Framework reaffirms the waste management hierarchy, recognized by BC-10/2 as "prevention, minimization, reuse, recycling, other recovery including energy recovery, and final disposal", aiming to encourage treatment options that deliver the best overall environmental outcome, taking into account life-cycle thinking."[185] It further support the argument that waste management hierarchy, including its definition, is important and closely related to the operationalization of the environmentally sound management principle. The document also refers to the 1992 Guidance Document. However, the guiding principles mentioned in the ESM Framework did not mirror the eleven principles established in the Guidance Document,[186] but only referring to six principles: 1) the polluter pays principle; 2) the precautionary principle; 3)

[184] *ESM Framework (UNEP/CHW.11/3/Add.1/Rev.1)*, *supra* note 116, ¶¶ 5–7.
[185] BC-10/2, annexed to document *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.
[186] See Annex I on *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117.

the proximity principle; 4) the least transboundary movement principle; 5) The principle of responsibility for ESM of hazardous waste generated within a State cannot be transferred to another State, based on Article 4 paragraph 10; and 6) environmental justice principle. The addition of environmental justice principle was a new development to the Basel Convention. Nevertheless, a broadening framework of ESM through its guiding principles seems to be an accommodation to the more practical approach towards environmentally sound management.

2.3.3.5 The 2011 Cartagena Declaration

The Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes, introduced by the representative of Colombia and adopted by COP-10 in 2011, provides another context for the environmentally sound management principle.[187] The Cartagena Declaration reaffirms the fundamental aims of the Basel Convention are the prevention and minimization of their generation and the reduction of transboundary movements of hazardous and other wastes (preambular paragraph 2). Implementing both of these elements will lead to the environmentally sound management of hazardous and other waste as the most effective way to protect human health and the environment (preambular paragraph 3), in accordance with the waste hierarchy principle. The Declaration also recalls the decision BC-III/1 of the Ban Amendment and BC-VII/2 on Hazardous Waste Minimization, which suggest a reading that the crucial aim of the Ban Amendment was to minimize the generation and transboundary movement of hazardous wastes. Thus, its entry into force might provide a shift in focus in the Basel Convention's operationalization from regulatory scheme to minimization of waste generation at source (preambular paragraph 8), since prevention and minimization of waste at source are 'a

[187] Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes, in Annex IV of *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, [hereinafter Cartagena Declaration].

critical stage' of waste management hierarchy and one of the fundamental aims of the Convention (preambular paragraph 9).

Furthermore, the preamble paragraph 12 recognizes the 'special responsibility' of states from which the most hazardous and other wastes are generated to take a lead in promoting and implementing waste prevention and avoidance policies and methods at source. It emphasized the duty of generating states to minimize cost-externalization practices as the preferable method in preventing and minimizing hazardous and other wastes generation by addressing the issue of waste generation at source, that is, domestically rather than transporting it to other countries. Safe and environmentally sound management of hazardous and other wastes that cannot be avoided should done in accordance with Basel Convention's provisions, guidelines, and decisions, acknowledging that Basel Convention should be observed as a whole treaty regime, affirming that technical guidelines, despite its non-binding nature, have legal basis as one of the sources for elaborating the Convention's provisions.

The Cartagena Declaration reaffirms that the Basel Convention is the primary global instrument for guiding the environmentally sound management of hazardous and other waste including prevention and minimization efforts (paragraph 3). This paragraph suggests that environmentally sound management is, in essence, the foundational principle of the Convention. The Declaration also encourage national-level approach and implementation in hazardous and other waste prevention and reduction (paragraph 4-5) and transboundary movement of those wastes is only allowed as long as it will not create a disincentive for their prevention and minimization. As such, it suggests an adherence to the waste hierarchy principle which requires waste prevention and minimization as taking more priority than transboundary movement of hazardous and other wastes, even in the case that it observed the ESM standards.

2.3.4 Principles related to ESM

The existence of principles of international environmental law can be traced back to its confirmation by the arbitral tribunal in the *Iron Rhine* case.[188] Such principles can be applicable to "all members of the international community across the range of activities that they carry out or authorize and in respect of the protection of all aspects of the environment."[189] Yet to establish the precise international legal status of each principle can be a mounting task, and cautions should also be exercised in approaching these principles since these principles relate to the various legal norms and credo of differing nature and authority.[190] Their normative authority range from established rules of customary international law, emerging rules, to lesser normative status such as guiding interpretative standards or even aspirational norms. Thus, it is important to examine the application of each principle in relation to the Basel Convention. The 1992 Guidance Document lists ten principles while the 2010 ESM Framework lists only six, introducing a new environmental justice principle related to the guiding principles on ESM.

The source reduction principle. By definition, source reduction is the practice that reduces the quantity of materials entering a waste stream from a specific source by redesigning products or patterns of production and consumption.[191] It is by which the generation of waste should be minimized in terms of its quantity and its potential to cause pollution.[192] In 1974, OECD established the Waste Management Policy Group and mandated the group to address international waste problems on three main issues,: source

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[188] Iron Rhine Arbitration, Belgium v Netherlands, Award, ICGJ 373 (PCA 2005), 24th May 2005, Permanent Court of Arbitration.
[189] SANDS ET AL., *supra* note 124, at 198.
[190] Lluis Paradell-Trius, *Principles of International Environmental Law: An Overview*, 9 REV. EUR. COMP. & INT'L ENVTL. L. 93 (2000).
[191] See Douglas J. Lober, *Municipal Solid Waste Policy and Public Participation in Household Source Reduction*, 14 WASTE MANAG RES 125 (1996); Peter Glavič & Rebeka Lukman, *Review of Sustainability Terms and Their Definitions*, 15 JOURNAL OF CLEANER PRODUCTION 1875, 1876 (Dec. 2007); Moustafa A Chaaban, *Hazardous Waste Source Reduction in Materials and Processing Technologies*, 119 JOURNAL OF MATERIALS PROCESSING TECHNOLOGY 336 (Dec. 2001).
[192] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, at 4.

reduction, material reclamation, and transportation and disposal of toxic waste.[193] By 1984, OECD includes the source reduction to be an important aspect of transfrontier movement of hazardous waste, which seen as the priority of life cycle of waste management.[194] The 1987 Cairo Guidelines also included generation as stages of waste to be managed. This instrument considers the source reduction as one of the preventive measures of hazardous waste, establishing that states implicitly have responsibility to take appropriate steps "to ensure that the generation of hazardous wastes within their territories is reduced to a minimum", an aim later shared by the Basel Convention, acknowledging in the Preamble that "the most effective way of protecting human health and the environment … is the reduction of their generation to a minimum in terms of quantity and/or hazard potential."[195] The principle is embodied as general obligation under Basel Convention in Article 4(2(a). Despite this provision is binding to Parties, recent trends still show growing numbers of hazardous wastes produced each year,[196] and with the latest amendment which included several types of plastic wastes into the control regime of Basel Convention, the source reduction principle will be tested as to its effectiveness under Basel Convention.[197]

The integrated life-cycle principle is described by the Guidance Document as "by which substances and products should be designed and managed such that minimum environmental impact is caused during their generation, use, recovery and disposal."[198] This principle may be developed under the concept of sustainable development in which end-of-life disposal was discouraged to be in favor with recycling and reuse method of

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[193] Susanne Rublack, *Controlling Transboundary Movements of Hazardous Waste: The Evolution of a Global Convention*, 13 FLETCHER F. WORLD AFF. 113, 119 (1989).
[194] Decision-Recommendation on Transfrontier Movements of Hazardous Wastes No. C(83)180/FINAL (OECD Council Feb. 1, 1984); See also OECD, *Monitoring and Control of Transfrontier Movements of Hazardous Waste*, No. OCDE/GD(93)151, 112p (1993).
[195] *Cairo Guidelines (UNEP/GC.14/17)*, *supra* note 125, at 6.
[196] Barsalou & Picard, *supra* note 62, at 888.
[197] The inclusion of plastic waste was adopted as Amendment to Annex II, VIII, and IX, Decision BC-14/12, which will be discussed in Chapter 4. See *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Fourteenth Meeting*, No. UNEP/CHW.14/28 (May 2019).
[198] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, at 4.

disposal as to minimize wasted resources. It aims to prevent unnecessary generation of waste throughout products or substance's life-cycle and thus closely linked with the source reduction principle. In regard to wastes, under several international legal instruments on hazardous waste management, interpreting what constitute 'life-cycle' of wastes is ever-evolved. The 1981 Montevideo Programme considers it to constitute handling, transport, and end of life disposal of hazardous wastes,[199] while 1987 Cairo Guidelines adopted a more comprehensive interpretation to include "the collection, transport (including transfrontier movements), storage (including storage at transfer stations), treatment and disposal of hazardous wastes".[200] Under Basel Convention, the language was refined to be "collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites" (Article 2 paragraph 2).

The precautionary principle began to emerge in international legal instrument since 1980s, with the 1985 Vienna Convention for the Protection of the Ozone Layer (1985 Vienna Convention)[201] and 1987 Second International Conference on the Protection of the North Sea (Second North Sea Conference)[202] as among the earliest international treaty to refer to the principle on international stage,[203] but found its roots in various international instruments related to the environment.[204] Such instrument was the 1969 Intervention Convention which recognized limitation to act based on scientific evidence at the time, concerning the consequences of failure to act and allows for proportionate measures to be exercised "to prevent, mitigate, and eliminate grave and imminent danger to their coastline

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[199] See *1981 Montevideo Programme*, *supra* note 121.
[200] *Cairo Guidelines (UNEP/GC.14/17)*, *supra* note 125.
[201] *Vienna Convention for the Protection of the Ozone Layer*, 1513 UNTS 293 (Mar. 1985).
[202] *The Implementation of the Ministerial Declaration of the Second International Conference on the Protection of the North Sea* 553 p. (Ministry of Transport and Public Works, Public Relations and Documentation Mar. 1990).
[203] Gregory Fullem, *Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty Comment*, 31 WILLAMETTE L. REV. 495 (1995).
[204] See Daniel Bodansky, *Law: Scientific Uncertainty and the Precautionary Principle*, 33 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 4 (Sep. 1991); James Cameron & Juli Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B. C. INT'L & COMP. L. REV. 1 (1991).

or related interests from pollution or threat of pollution of the sea by oil" (Article 1) with consideration of "the extent and probability of imminent damage if those measures are not taken" (Article 5 paragraph 3(a)).[205] The core of the principle was reflected in Principle 15 of the Rio Declaration, which states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" while also exert that "the precautionary principle shall be widely applied by states according to their capabilities".[206] The most notable term which defines this principle is the 'lack of certainty' which reflects a change from traditional approach to adopts decision based on 'scientific findings'.[207]

Under the Basel Convention, the precautionary principle is observed closely with the prevention principle. As such, the Guidance Document examined that "whereby preventive measures are taken, considering the costs and benefits of action and inaction, when there is a scientific basis, even if limited, to believe that release to the environment of substances, waste or energy is likely to cause harm to human health or the environment". Such approach was observed during the negotiation of Basel Ban Amendment and its adoption, which was within the mandate of Article 15 paragraph 7 ("…if deemed necessary, to consider the adoption of a complete or partial ban of transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information"). Several provisions also implicitly take into account the precautionary principles, especially on substantive (Ban Amendment) and technical (Annexes) amendments provisions, and the employment of technical guidelines as non-binding technique of the Convention, such as the technical guidelines for plastic waste

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[205] *International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties*, 970 UNTS 211 (Nov. 1969).
[206] *1992 Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/26 (vol. I), 31 ILM 874 (Jun. 1992).
[207] Philippe Sands, *The Greening of International Law: Emerging Principles and Rules*, 1 IND. J. GLOBAL LEGAL STUD. 293, 297 (1993).

(UNEP/CHW.6/21) and electronic waste (UNEP/CHW.14/7/Add.6/Rev.1).

The integrated pollution control principle. The basic tenet of this principle requires that the management of hazardous waste should be based on a strategy which takes into account the potential for cross media and multi-media synergistic effects; a shift from traditional approach to environmental regulation which address particular activities, substances, or media, which is commonly addressed as sectoral pollution control.[208] Sectoral pollution control approach is still found in a large number of environmental treaties addressing environmental protection, such as Part XII of 1982 (United Nations Convention on the Law of the Sea (UNCLOS), 1979 Convention on Long-range Transboundary Air Pollution [hereinafter LRTAP], and the 1974 Regional Seas Programme of UNEP. This approach generally established more specific and detailed standards and control mechanism over particular customary norms, which contribute to the development of pollution threshold in various types of pollution.[209] Another difference in approach between two principles is in its aim; the sectoral pollution control approach aims to restrict pollution to parts of environment shared by more than one state, from pollution sourced located in one state, while integrated pollution control's objective is to restrict transboundary pollution source transfer (e.g., between two states). OECD Council, in 1991, defined the integrated pollution control approach as:

> *Taking into account the effects of activities and substances on the environment as a whole and the whole commercial and environmental life-cycles of substances when assessing the risks that they pose and when developing and implementing controls to limit their release.*[210]

The OECD Recommendation calls on party members to address obstacles to integrated approach, solutions to them, and adopt appropriate regulations to support its implementation, by referring to the Guidance on Integrated Pollution Prevention and

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[208] *Id.* at 313; KUMMER, *supra* note 18, at 26.
[209] KUMMER, *supra* note 18, at 172–74.
[210] Recommendation of the Council on Integrated Pollution Prevention and Control No. C(90)164/FINAL ¶ 1(a) (OECD Council Jan. 31, 1991).

Control set out in the 1990 United Kingdom Environmental Protection Act as the guiding document.[211] This instrument detailed the necessary steps and criteria on implementing the integrated pollution control approach, which was among the first instrument to do so.[212] The Recommendation also recognizes several policies central to the implementation of this principle, including sustainable development, the use of no or low waste technology and recycling strategies.[213]

The standardization principle in general interpretation requires the provision of standards for the environmentally sound management of hazardous wastes at all stages of their processing, treatment, disposal and recovery.[214] The long negotiation delays, generality of obligations, and tendency of the broader area of concern the less specific the commitment, prompts calls for 'a more extensive global environmental rulemaking' by adopting standardization principle and through organization for standard-setting,[215] which subsequently resulted in the establishment of International Standard Organization (ISO), currently the focal point for standardization for many of the technical approach in various MEAs.[216] This principle also emerged as the field of environmental protection shifts from traditional approach of "command-and-control" to complex market approach of tax, tradable permits, eco-labels, and forth and so on,[217] blurring the lines between public and private lawmaking in a more globalized business setting.[218] Under Basel Convention, this

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[211] Environmental Protection Act, 1990, ch. 43 (U.K.), part I, reprinted in HMSO, The Public General Acts and General Synod Measures, Part III (1991).
[212] Sands, *supra* note 207, at 320.
[213] OECD Decision C(90)164/FINAL No. C(90)164/FINAL ¶¶ 3–4.
[214] Cf. Peter H. Sand, *Lessons Learned in Global Environmental Governance*, 18 B. C. ENVTL. AFF. L. REV. 213 (1990–1991); LAWRENCE E SUSSKIND & SALEEM H. ALI, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS (Oxford University Press Second ed. 2015).
[215] Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AMERICAN JOURNAL OF INTERNATIONAL LAW 259 (Cambridge University Press Apr. 1992); Daniel C. Esty, *GATTing the Greens: Not Just Greening the GATT*, 72 FOREIGN AFFAIRS 32, 32 (1993).
[216] Naomi Roht-Arriaza, *Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment*, 22 ECOLOGY LAW QUARTERLY 479 (1995).
[217] Naomi Roht-Arriaza, *Private Voluntary Standard-Setting, the International Organization for Standardization, and International Environmental Lawmaking*, 6 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 107 (Dec. 1995).
[218] Roht-Arriaza, *supra* note 216, at 515; BODANSKY, *supra* note 107, at 74.

principle is established in provisions requiring the hazardous wastes subject to transboundary movement "be packaged, labelled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labelling, and transport, and that due account is taken of relevant internationally recognized practices" (Article 4(7(b)) and to provide information including "harmonization of technical standards and practice" (Article 10(2(a)). Despite the crucial practice of labelling and packaging, the Convention did not refer specifically to any standards and instead opt to adopt the generality of "accepted and recognized international rule and standards", leaving any decision as to which standards to be applied to the MOP/COP.

The Guidance Document also lists three principles and urges them to be read as a whole;[219] t***he self-sufficiency principle,*** by which countries should ensure that the disposal of the waste generated within their territory is undertaken there by means which are compatible with environmentally sound management, while recognizing that economically sound management of some wastes outside of national territories may also be environmentally sound; ***the proximity principle***, by which the disposal of hazardous wastes must take place as close as possible to their point of generation, recognizing that economically and environmentally sound management of some wastes will be achieved at specialized facilities located at greater distances from the point of generation; and ***the least transboundary movement principle***, by which transboundary movements of hazardous wastes should be reduced to a minimum consistent with efficient and environmentally sound management. Reading of the three principles elucidates its affirmation to achieve Basel Convention's aim to minimize transboundary movement of hazardous waste, by internalizing the management while also prevent the emergence of export of hazardous

[219] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, ¶ 10(f)-(h).

wastes through what was called the 'path of the least resistance'.[220]

The polluter pays principle was first developed by OECD through its Guiding Principles Concerning International Economic Aspects of Environmental Policies[221] in 26 May 1972, stating that:

> *"The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called "Polluter-Pays-Principle." This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment."*

The initial aim for this development was to allocate costs arising from control and further prevention measures to Parties found be to be liable to the pollution. The Parties, both can be public and private in nature, should bear the costs without any subsidies as it may hamper the deterrence effect this principle was aimed for. This polluter liability can find its traces to the *Trail Smelter* arbitral awards, which required Canada to pay for the pollution it caused, and obliged them to take measures to avoid further damage.[222] This principle was also adopted by the EU in the Single European Act of 1987,[223] and recognized in Principle 16 of Rio Declaration, stating that:

> *"National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment."*[224]

The method of this 'cost-internalization' was commonly become one of the techniques in case of liability in MEAs.[225] It was also adopted by the Basel Convention

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[220] KUMMER, *supra* note 18, at 6–8.
[221] Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies No. C(72)128 (OECD Council May 26, 1972), [hereinafter OECD 1972 Recommendation].
[222] Trail smelter case (United States, Canada), 1941 III UN R. Int'l. Arb. Awards 1905 (Arbitrational Tribunal 1938), [hereinafter Trail Smelter Case].
[223] Single European Act, 169 OJ L 1–28 (European Council Jun. 29, 1987).
[224] *Rio Declaration (UN Doc. A/CONF.151/26 (Vol. I))*.
[225] Barbara Luppi et al., *The Rise and Fall of the Polluter-Pays Principle in Developing Countries*, 32 INTERNATIONAL REVIEW OF LAW AND ECONOMICS 135 (Mar. 2012).

through its Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, affirming that the potential polluter must act to prevent pollution and those who cause pollution pay for remedying the consequences of that pollution.[226]

The principle of sovereignty, deeply rooted in the principle of territorial sovereignty, enables states to conduct or authorize activities to their interests domestically, including activities that "may have adverse effect on their own environment".[227] A 'limitation' of the principle, which allows for it to be applicable in international environmental law was established when United Nations General Assembly in 1962 adopted a resolution which states that "the rights of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development of the well-being of the people of the state".[228] The resolution entails that 'to not cause harm to the well-being of the people and the states' becomes the limitation of rights to exploit natural resources within their jurisdiction. Limitation to the 'freedom to pollute' was provided by customary law with the responsibility not to cause harm.[229] This customary law of 'not to cause harm' was established in general terms by the Trail Smelter Arbitration and Corfu Channel Case.[230] This rule was later codified in Principle 21 of 1972 Stockholm Declaration, which states:

> *States have, in accordance with the Charter of the United Nations and principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction do not cause damage to the environment of other States or of areas beyond*

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[226] *Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal* (1999), [hereinafter Basel Protocol on Liability and Compensation].
[227] SANDS ET AL., *supra* note 124, at 202; Max Valverde Soto, *General Principles Of International Environmental Law*, 3 ILSA JOURNAL OF INTERNATIONAL & COMPARATIVE LAW 193 (1996); NICO SCHRIJVER, SOVEREIGNTY OVER NATURAL RESOURCES: BALANCING RIGHTS AND DUTIES 240–42 (Cambridge University Press 1997).
[228] Permanent Sovereignty over Natural Resources, U.N. Doc. A/RES/1803(XVII), U.N. GA, Seventeenth Sess. (1962).
[229] KUMMER, *supra* note 18, at 17.
[230] Trail smelter case (United States, Canada), 1941 III UN R. Int'l. Arb. Awards 1905 (Arbitrational Tribunal 1938); Corfu Channel case, Judgment of April 4th, 1949, 1949 I.C.J. Reports 4, [hereinafter Corfu Channel case].

the limits of national jurisdiction.

The importance on both the sovereignty rights and its customary law as 'to not cause harm' placed by states can be observed by its frequent mentions in international environmental agreements and negotiations.[231] 1992 Rio Declaration reiterated its importance, stating that:[232]

> *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 areas beyond the limits of national jurisdiction.*

The sovereign rights were also recognized under Basel Convention, which in its preamble, states that "any State has the sovereign right to ban the entry or disposal of foreign hazardous wastes and other wastes in its territory". This principle is incorporated into provisions such as the rights of states to prohibit import of hazardous wastes based on national definition of hazardous waste (Article 3) which includes nationally defined hazardous wastes shall be prohibited for import into said Parties, supplementing the Annex I and III list. Parties also have the rights to prohibit any imports of hazardous wastes if it's believed to be managed environmentally unsound manner. Another provision is the PIC mechanism in which importing and transit states' consent on any transboundary movement is integral. In addition, the Guidance Document also elaborates that under PIC mechanism, every country shall take into account political, social and economic conditions in establishing a national waste management structure.[233]

The principle of public participation emerged as the needs for participatory elements to enhance the legitimacy of decision-making was getting attention by governments and mounting pressures from influential NGOs.[234] This legitimacy may stem from public involvement which serve to legitimize any environmental decisions and

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[231] SANDS ET AL., *supra* note 124, at 202.
[232] Principle 3, *Rio Declaration (UN Doc. A/CONF.151/26 (Vol. I))*.
[233] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, at 5.
[234] Jonas Ebbesson, *Public Participation*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 682 (Daniel Bodansky et al. eds., Oxford University Press 2008).

agreement, but also related to the democratic decision-making themselves; public may have more trust in a decision or agreement which also consults to the general population it may affect.[235] This principle was recommended by Rio Declaration to be encourages by states and to provide 'effective access' to judicial and administrative decision-making process.[236] Nationals are increasingly pay attention to this principle during its policy-making process, and is gaining international legal recognition in the form of Principle 10 of Rio and Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters convened under the auspices of United Nations Economic Commission for Europe (UNECE). Aarhus Convention was adopted in 25 June 1998 and establishes several rights of public in regard to environments, such as right of access to environmental information, the right of public participation in environmental decision-making, and right of access to justice.[237] This principle is also applicable and indeed integrated into Basel Convention, under which States should ensure that in all stages, waste management options are considered in consultation with the public as appropriate, and that the public has access to information concerning the management of hazardous wastes.[238]

Environmental justice principle in the context of international environmental law has an important global north-south divide dimension, and seems to be indivisible from it. Its aims can be assessed through its distinct features.[239] First, environmental justice advocates for fair distribution of benefits and burdens of economic activities as well as access to environmental goods and access, thus *distributive justice*. Second, environmental justice calls for inclusiveness and *procedural justice*, including rights of communities to

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[235] BODANSKY, *supra* note 107, at 128.
[236] Principle 10, *Rio Declaration (UN Doc. A/CONF.151/26 (Vol. I))*.
[237] *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, 2161 UNTS 447 (Jun. 1998), [hereinafter Aarhus Convention].
[238] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, at 5.
[239] Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 ENVTL. L. REP. NEWS & ANALYSIS 10681 (2000), advocating the taxonomy of environmental justice principle and elaborating its four features.

participate in environmental-related governmental policy-making process or commonly known as principle of public participation. Third, environmental justice requires for *corrective justice*, that is fair enforcement of environmental law and compensation for those affected and rights violated. Fourth, environmental justice is intertwined with other forms of justice, especially *social justice* and economic justice and cannot be separately addressed. In relation to international environmental law and specifically hazardous wastes, environmental justice principal may be approached through several aspects, such as human rights, common but differentiated principle, developing a comprehensive and environmental-friendly legislation in mitigating transnational corporations' power.[240]

2.4 Contents of ESM Principle

2.4.1 Minimization of generation and transboundary movement of hazardous wastes

Minimization of generation and transboundary movement of hazardous wastes as a content of ESM sets out the obligations of states to prevent and minimize the generation of hazardous wastes and to minimize its transboundary movement to achieve environmentally sound management. Its operationalization is twofold. *First*, achieving environmentally sound management should start by observing waste minimization principle. Based on Decision BC-10/2, waste minimization principle consists of two elements: waste prevention and waste minimization (or source reduction). Document UNEP/CHW.13/4/Add.1/Rev.1 adopted by decision BC-13/2 further elaborate the concepts.[241] Minimization of waste generation aims to reduce the waste quantity and/or the hazard potential and/or the hazardous content of products and materials prior to becoming wastes. While waste minimization includes strict avoidance, source reduction,

[240] Carmen G. Gonzalez, *Environmental Justice and International Environmental Law*, *in* ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW (Shawkat Alam et al. eds., Feb. 2012), arguing how environmental justice and international environmental law are closely related and influence one another.
[241] *Set of Practical Manuals for the Promotion of the Environmentally Sound Management of Wastes*, No. UNEP/CHW.13/4/Add.1/Rev.1 (Aug. 2017).

direct reuse, reuse and recycling, waste prevention means practical actions may include strict avoidance, source reduction and direct reuse. Nevertheless, minimization of waste generation element of ESM offers more protection to the environment than any subsequent treatment of hazardous waste.[242] The minimization of waste generation is well-established in the Convection's text, *inter alia*, in the preambular paragraph 3 and Article 4 paragraph 2(a) also states that "ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum", with clemency of "taking into account social, technological and economic aspects".[243] This drafting technique was applied on the first draft convention to recognize the limited capabilities of developing in coping with the hazardous waste management problem and was drawn from the Cairo Guidelines paragraph 2(a), 7(a) and 7(b).[244] The waste minimization principle in Article 4 paragraph 2(a) was intended to establish a general principle under the Convention that the generation of hazardous wastes ought to be minimized.

Second, the latter part of minimization element addresses the minimization of transboundary movement of hazardous waste, as established under Article 4 paragraph 2(d), namely "Ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes." Furthermore, the minimization of transboundary movement of hazardous waste was re-affirmed and further elaborated by the Guidance Document to include self-sufficiency, proximity, and least transboundary movement as a set of principles to be observed as a whole.[245] Thus, Article 4 paragraph 9 of "Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes

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[242] Wolf, *supra* note 128.
[243] See Preambular ¶3 of *Basel Convention*, stating that: "Mindful also that the most effective way of protecting human health and the environment from the dangers posed by such wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential."
[244] *First Draft Convention on the Control of Transboundary Movements of Hazardous Wastes*, No. UNEP/WG.180/2, 8 (Oct. 1987).
[245] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117, ¶ 10(f-h).

and other wastes only be allowed if…" should be read as to take precedence of the minimization of transboundary movement of hazardous and other waste instead of treating this provision as enabling provision for prioritize waste trade practice.

Self-sufficiency and proximity principle are addressed by the obligation set by Article 4 paragraph 2(b) which states that: "Ensure the *availability of adequate disposal facilities*, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, *to the extent possible, within it*, whatever the place of their disposal." The draft provision was initially intended only "to establish adequate facilities", but raised comments and disagreements from developing countries representatives since it might burden developing countries without proper resources to implement the provision.[246] They also argued that the intended obligation was also in contravention to the common-but-differentiated principle. The revised language of "ensure the availability" was the result of compromise. The development behind this article thus does not necessarily to 'promote' the hazardous waste trade, but rather in consideration with the differing realities faced by the developing states, and should not be interpreted as to establish the waste trade, since it does not conform to the underlying principle of ESM as initially intended. Thus, the term 'efficient' in "environmentally sound *and efficient* management", found in Preambular paragraph 8 and Article 4 paragraph 2(d) should not be interpreted as a justification to export solely based on lower disposal cost despite observing minimum ESM standards,[247] but rather to read the term together with self-sufficiency and proximity principle to achieve minimization of transboundary movement of hazardous waste by prioritizing the least transboundary movement principle. While the current practices as a result of prior interpretation is to 'environmentally sound' regulate the hazardous waste

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[246] Cf. *Fourth Revised Draft Convention on the Control of the Transboundary Movement of Hazardous Wastes*, No. UNEP/WG.189/L.2/Rev.1 (Sep. 1988), [hereinafter Fourth Revised Draft Convention]; *Draft Convention on the Control of Transboundary Hazardous Waste*, No. UNEP/WG.191/4 (Mar. 1989), [hereinafter Draft Convention]. See also the comments on each provision.
[247] WINFRIED LANG ET AL., ENVIRONMENTAL PROTECTION AND INTERNATIONAL LAW 153 (Graham & Trotman 1991).

trade, the original intention and subsequently the entry into force of Ban Amendment (see Chapter 3) might take precedence and strengthen the ESM principle under the Basel Convention.

2.4.2 Regulatory scheme

As elaborated in Chapter 1, this study identifies regulatory scheme under the Basel Convention as an arrangement consisted of specific rules, standards and mechanisms to regulate the transboundary movements of hazardous wastes and other wastes. Any proposed transboundary movement of hazardous waste and other waste which is not prohibited and in conformity with the provisions of the Convention must be carried out in accordance with the regulatory scheme, as provisioned on Article 4 paragraph 1(c) and Article 4 paragraph 2(f). Therefore, the underlying foundation of regulatory scheme under Basel Convention is the PIC mechanism, provisioned under Article 6 and 7.

The 'regulatory scheme' put the emphasis on state of export in regard to obligations related to ESM, such as obligation to notify the intended importing states (Article 4 paragraph 2(f)), to prohibit export of hazardous wastes if importing states have prohibited the import of such wastes under national definition (Article 4 paragraph 1(b)) or state of import does not submit written consent to such imports (Article 4 paragraph 1(c)), to prohibit "if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner" (Article 4 paragraph 2(e)), implicating that state of export has a duty to ensure the proposed export would not be in contravention to the standards established by the Convention. Nevertheless, since the verification mechanism is not established under the Convention, 'reason to believe' shall be interpreted as state of export's "conclusion based on relevant information received from the importing state."[248]

[248] See KUMMER, *supra* note 18, at 57, especially what is stressed on footnote 59.

State of export also has duty to ensure the proposed wastes are to be managed in an environmentally sound manner whatever the place of disposal (Article 4 paragraph 8). By applying the principle of non-discrimination, state of export shall, before verifying adequateness in proposed state of import, require the waste in question to be domestically managed with same rules and standards. These obligations exclusive to the state of export "may not under any circumstances be transferred to the States of import or transit" (Article 4 paragraph 10), implicating that state of export has central duty in establishing ESM of hazardous wastes.

2.4.3 Emphasis on the contents' operationalization

A synthesis of the deliberations and documents on ESM, including the text of Basel Convention, exhibits that the content of 'environmentally sound management' in essence is a combination of minimization of generation and transboundary movement of hazardous wastes, and the strict regulatory scheme based on prior informed consent. While waste management hierarchy principle as the context of environmentally sound management principle dictates that waste minimization takes precedence,[249] it was clear that the regulatory scheme element was particularly emphasized during the operationalization of the Basel Convention within the last three decades. However, what was initially intended by UNEP as the convenor and many of plenipotentiaries during the drafting process was to achieve environmentally sound management through minimization of the transboundary movements of hazardous wastes.

The entry into force of Ban Amendment and Plastic Waste Amendment have affected the context of environmentally sound management to include the prevention principle and an additional element of managing plastic waste in an environmentally sound manner (See

[249] Waste management hierarchy principle is commonly recognized as the prevention, minimization, reuse, recycling, other recovery including energy recovery, and final disposal. See Annex to decision BC-10/2 in *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.

Chapter 3 and 4). The amendments have re-shifted the focus in operationalizing these contents. Prior to the amendments, the regulatory scheme does not put emphasis on the generation of hazardous wastes but was viewed as an enabling mechanism making transboundary movement of hazardous waste legal, by adhering to the strict prior informed consent mechanism. However, after the amendments, the emphasis is on the minimization of waste generation and its transboundary movements instead. Indeed, the amendments did not instantaneously shift this focus of operationalization, but serve as the major milestone for this development. As this chapter has elaborated, the gradual consensus building on the importance of waste minimization can be observed through the adoption of several documents, such as the 1999 Basel Declaration on Environmentally Sound Management,[250] the 2010 ESM Framework, and the 2011 Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wastes.[251]

A shift in the focus from regulatory scheme to the minimization element can be considered as an enhancement in the operationalization of the Basel Convention. This argument comes from a consideration that the waste management hierarchy advocates the prevention and minimization as taking precedence over recycling and disposal practices. By adhering to this waste hierarchy, the operationalization of the environmentally sound management principle reflects a more ideal practice in minimizing risk of harm to the environment while also in accordance with the initial intention during the negotiation. Thus, it can be considered that this shift in focus is strengthening the environmentally sound management principle itself in better protecting the environment.

These developments exhibited that environmentally sound management is not a static concept, and what needs to be done to achieve it evolves according to circumstances, and in particular to the scientific and technological developments. Environmentally sound

[250] Annex II to the *COP-5 Report (UNEP/CHW.5/29)*, *supra* note 102, at 85.
[251] Annex IV to the *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, at 164.

management as the foundational aim of the Convention should first be operationalized by observing waste hierarchy which prioritizes prevention and minimization of waste generation and transboundary movement over its management. It means that the best course of action to be considered as environmentally sound is not generate any unnecessary hazardous and other wastes, in accordance with the waste management hierarchy. As the technology in production and consumption advances, the limits of what can be considered as environmentally sound management might also change but the primary focus would be the same. Furthermore, any transboundary movement without adhering to strict regulatory scheme established under the Convention is clearly considered as illegal traffic under Article 9 of the Convention, thus any transboundary movement of hazardous waste shall be done under the regulatory scheme based on PIC mechanism to be considered as environmentally sound.

2.5 Conclusion: the Two Elements of ESM Principle

The conception, elaboration, and operationalization of environmentally sound management both on the international level and under the Basel Convention are thus the result of 30 to 40 years of intense UNEP-led activities. It is a testimony that the principle underpins both the hazardous and other wastes management practices and received wide acceptance from international community. Beyond the texts and documents under Basel Convention, it also found its way into many other international instruments, such as Agenda 21 of Rio Declaration,[252] Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, [253] and Lomé Convention IV.[254]

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[252] *Agenda 21 (U.N. Doc. A/CONF. 151/26/Rev.1)*, *supra* note 179.
[253] *Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa*, 2101 UNTS 177 (Jan. 1991), [hereinafter Bamako Convention].
[254] *Fourth ACP-EEC Convention*, 1924 UNTS 3 (Dec. 1989), [hereinafter Lomé Convention IV].

The environmentally sound management can be considered as the foundational principle underpinning the Basel Convention. It serves as the convergence of expectations of the Convention, providing a framework within which the normative development and the operationalization of the Basel Convention were pursued. The *travaux preparatoires* documents which elaborated the negotiation process, lay out the normative content of environmentally sound management principle. This was also supported by the five documents having normative values in understanding the environmentally sound management: the 1992 Guidance Document which sets related principles as the context, the 1999 Basel Declaration on ESM which stresses the importance of prevention and minimization of waste generation and transboundary movement in order to achieve environmentally sound management, the 2010 ESM Framework which reaffirms the waste management hierarchy and provides practical implementation tools for environmentally sound management of waste particularly under the Basel Convention, and the 2011 Cartagena Declaration which reaffirms that the Basel Convention is the primary global instrument for guiding the environmentally sound management of hazardous and other waste including prevention and minimization efforts and that environmentally sound management is, in essence, the foundational principle of the Convention.

By studying those negotiations and documents, it can be concluded that under the original regime of the Basel Convention, ESM principle consists of two main elements: 1) minimization of waste generation and transboundary movement of hazardous waste; and 2) the regulatory scheme (or often referred in the Convention's documents as the strict control system) based on the prior informed consent. The element of waste minimization not only relates to the waste generation, but also to the proximity and least transboundary movement. On the other hand, the element of regulatory scheme provides a strict control mechanism only through which any transboundary movement is allowed.

As elaborated, the reading of ESM principle by observing those documents indicates an emphasis to the waste minimization obligation, in accordance with the waste

management hierarchy, in which a hierarchy of priorities is set from prevention, reduction, recycling, and reuse of wastes and subsequently treatment and disposal. In the context of transboundary movement of hazardous wastes and other wastes, it also prioritizes domestic minimization of waste generation and its transboundary movements.[255] However, this study observed that during its development, the emphasis of the Basel Convention's operationalization was to prioritize the regulatory scheme rather than waste minimization principle. The environmentally sound management standard was considered as the enabling mechanism by which transboundary movements of hazardous wastes become legal. This prolonged practices of relying on the regulatory scheme instead have disincentivized the operationalization of minimization of waste management and transboundary movement from being the priority of the Basel Convention, as initially intended by the convenor and a number of the plenipotentiaries.

In order to achieve the original aim of the Basel Convention that is to manage transboundary movements of hazardous wastes in an environmentally sound manner, observance of waste management hierarchy suggests that a shift in focus from regulatory scheme to emphasizing waste minimization principle should take precedence. This shift would constitute a strengthening of ESM as the original aim, since waste minimization provides better incentives in achieving environmentally sound management rather than allowing business-as-usual in managing those wastes.

[255] See Ana Pires & Graça Martinho, *Waste Hierarchy Index for Circular Economy in Waste Management*, 95 WASTE MANAGEMENT 298 (Jul. 2019); S. Van Ewijk & J. A. Stegemann, *Limitations of the Waste Hierarchy for Achieving Absolute Reductions in Material Throughput*, 132 JOURNAL OF CLEANER PRODUCTION 122 (Sep. 2016).

CHAPTER 3.

STRENGTHENING THE ESM PRINCIPLE THROUGH THE BAN AMENDMENT: ITS EVOLVING OPERATIONALIZATION

3.1 Introduction

The Decision BC-III/1 or commonly addressed as Basel Ban Amendment was adopted during COP-3 in 1995 after a long and arduous negotiation. This amendment recently entered into force on 5 December 2019 following the depository of Croatia's ratification.[256] Decision BC-III/1 adopt the following amendment to the Convention:

> *Recognizing that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting an environmentally sound management of hazardous wastes as required by this Convention;*
>
> *Insert new Article 4A:*
>
> *Each Party listed in Annex VII shall prohibit all transboundary movements of hazardous wastes which are destined for operations according to Annex IV A, to States not listed in Annex VII.*
>
> *Each Party listed in Annex VU shall phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes under Article l(i(a) of the Convention which are destined for operations according to Annex IV B to States not listed in Annex VII. Such transboundary movement shall not be prohibited unless the wastes in question are characterised as hazardous under the Convention.*
>
> *Annex VII*
>
> *Parties and other States which are members of OECD, EC, Liechtenstein*

Croatia was the 97th country to ratify the Ban Amendment and the 66th of those countries who were present and voting during the adoption of Decision BC-III/1, in accordance with the interpretation of Article17 paragraph 5 agreed by the Parties through BC-10/3 Part A paragraph 2.[257]

The adopted interpretation set the requirement of the entry into force of an

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[256] *Ratification of the Basel Convention Ban Amendment*, BASEL CONVENTION, http://www.basel.int/Countries/StatusofRatifications/BanAmendment/tabid/1344/Default.aspx (last visited Jan. 8, 2021).

[257] See BC-10/2, annexed to *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, see Section 3.4 of this chapter for further elaboration.

amendment to be on 'fixed-time approach', that is, three fourth of Parties who were present and voting at the time of adoption of the decision BC-III/1.[258] The interpretive decision was regarded as an attempt by the Parties to move beyond the deadlock on Ban Amendment negotiations between those in favor of a 'regulated export' of hazardous wastes and Parties who support the North-South total ban. The former group of Parties were mostly consisted developed countries such as Japan, US, Canada, Australia, and New Zealand (JUSCANZ) and some economy in transition countries which benefited from the ongoing trade in hazardous waste such as Brazil, India, and Pakistan.[259] On the contrary, the proponents of the Ban Amendment were mostly consisted of EU and G-77 countries, who argued that the total ban would safeguard countries with limited capabilities to dispose hazardous wastes in an environmentally sound manner.[260]

Ban Amendment formally established a two-fold nature of Basel Convention's regulatory scheme: restrictive with the limited ban and prohibitive with the total ban. The prior is operationalized through the consent-based PIC mechanism, while the latter is operationalized based on Annex VII membership. This development creates not only new obligations for Parties to the Convention but also significantly changes the operationalization of Basel Convention's regulatory scheme, perceived as "the cornerstone of the Convention as originally adopted."[261] Restrictive mechanism and limited ban of the Convention prescribe that transfer can only be done by adhering to the specific rules and standards set by the Convention within the framework of ESM principle, and ban any

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[258] Yang and Fulton detailed the discussion leading up and during the negotiation. See Tseming Yang & C. Scott Fulton, *The Case for U.S. Ratification of the Basel Convention on Hazardous Wastes*, 25 N.Y.U. ENVTL. L.J. 52 (2017).

[259] See the parties' comments on *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, ¶ 51; See also Alan Andrews, *Beyond the Ban - Can the Basel Convention Adequately Safeguard the Interests of the World's Poor in the International Trade of Hazardous Waste*, 5 LAW ENV'T & DEV. J. 169 (2009); Jason L. Gudofsky, *Transboundary Shipments of Hazardous Waste for Recycling and Recovery Operations*, 34 STAN. J. INT'L L. 219 (1998).

[260] *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159, ¶ 51; See also Kitt, *supra* note 76; Katie Paul, *Exporting Responsibility*, 34 ENVTL. POL'Y & L. 73 (2004).

[261] Katharina Kummer, *The Basel Convention: Ten Years On*, 7 REV. EUR. COMP. & INT'L ENVTL. L. 227 (1998).

movement to Antarctica (Article 4 paragraph 6) and also between party and non-Party (Article 4 paragraph 5) unless both Parties are in an agreement in accordance to Article 11 provisions. Meanwhile, the Ban Amendment now stipulates that any movement of wastes covered by Article 1 paragraph 1(a) from Annex VII to non-Annex VII countries both for recovery or final disposal are prohibited (Article 4A) regardless of its intended operation in importing states, constituting a "total ban" of hazardous waste movement from Annex VII countries to non-Annex VII countries, without any exception.

Consequently, the operationalization of the Basel Convention treaty regime has, in a sense, 'evolved' [262] as an implication of the Ban Amendment. As elaborated in the definition of 'regime evolution' on Chapter 1, the implications may be considered relate to both normative, such as changes in rules, and factual, such as changes in mechanism or operability of the Convention. Therefore, these implications should be considered within the framework of ESM principle as the foundational principle of the Basel Convention, since both implications do not only change the operationalization of Basel Convention (factual), but further influence the contents of ESM principle as the foundational principle underpinning the Basel Convention (normative). It means that ESM principle does not only provide the framework within which the Ban Amendment should be interpreted and operationalized, it has also subsequently modified as a result of the entry into force of Ban Amendment.

This chapter seeks to examine the 'evolution' as the result of the Ban Amendment's implications to ESM principle, by examining the discussion leading to the adoption and entry into force of Ban Amendment to observe the origin of the North-South total ban

[262] The notion of "evolving" regime of Basel Convention is not new. Scholars have argued, in anticipation of the entry into force of ban amendment, of 'changes in core elements of Basel Convention', 'a treaty moving from a predominantly bipolar approach to embracing elements of a multipolar approach', or 'a major amendment'. Cf. Kamigawara, *supra* note 18; Kummer Peiry, *supra* note 55; Lucier & Gareau, *supra* note 81; Juliette Voïnov Kohler, *A Paradigm Shift under the Basel Convention on Hazardous Wastes*, *in* WASTE MANAGEMENT AND THE GREEN ECONOMY 80 (Katharina Kummer Peiry et al. eds., Edward Elgar Publishing 2016).

discourse. It also explores related international and regional instruments such as Agenda 21, the Bamako Convention, and the Lomé Convention IV as a reference in further examining the North-South total ban, arguing that there was an emerging international norm of prohibiting transboundary movements from developed country to developing country. The emergence might affect the convergence of expectation under the Basel Convention regime, since it modified the collective international expectation on the interpretation of environmentally sound management. In addition, four contentious issues providing contexts on the development of Ban Amendment were subsequently identified and examined: 1) the issue of transboundary movement of hazardous wastes destined for recycling and recovery operations; 2) Annex VII; 3) the interpretation of Article 17 paragraph 5 on the required number of deposited instrument of ratification; and 4) Article 11, central to the discussion on Ban Amendment. The explorations of these issues are analyzed to examine their implications to the operationalization of the Basel Convention and the normative contents of ESM principle without changing its original aim, exhibiting an 'evolution' of the Convention.

3.2 Consensus Building of BC-III/1

The Basel Convention allow the transboundary movement of hazardous wastes if: 1) the State of Export does not have the technical capabilities and necessary infrastructure to dispose those wastes in an environmentally sound manner (Article 4 paragraph 9(a)); 2) such wastes are required as raw materials destined for recovery and recycling (Article 4(9(b)); and 3) in accordance with other criteria as long as the wastes would be managed in an environmentally sound manner (Article 4 paragraph 9(c)). Between these provisions, Article 4 paragraph 9(a) is the basis for transboundary movement of hazardous wastes destined for final disposal while Article 4 paragraph 9(b) becomes the basis for any transfer destined for recycling or recovery operations. In reality, the rule for waste transfer for recycling and recovery operations was difficult to be enforced mainly because two reasons:

1) the lack of technical capabilities and infrastructure to enforce it in developing countries; and 2) the practice of sham and dirty recycling was widespread and unpatterned.[263] Based on this consideration and the compromise reached during the Conference of Plenipotentiaries, developing countries viewed that resuming negotiation on the North-South total ban may initially focused on wastes destined recycling and recovery operations. This was the outlook during the COP-1, and was supported by Mr. Tolba, who reiterated the need "a comprehensive and global regime so as ultimately to minimize the generation of hazardous wastes and *ban their movement from North to South*" at the outset of the COP-1.[264]

On the contrary, this development did not gain support from many developed countries, especially OECD member states. One of the reservations relates to the language of the proposal which divide Basel Convention Parties into groupings of OECD and non-OECD, considered as impolitic by a number of developed countries. Furthermore, OECD had just adopted the 1992 OECD Council Decision concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations.[265] The 1992 Council Decision detailed the categorization of wastes destined for recycling into three categories: 1) red, by which wastes are considered the most toxic thus subject to strict prior notification procedures similar to PIC mechanism of Basel Convention; 2) amber, which are considered potentially risky but less toxic and subject to limited prior notification and consent can be tacit instead of written; and 3) green, by which wastes are considered safe and not subject to prior notification but a more general rules of normal commercial transactions.[266] This decision only applies between OECD members. Since it provides more elaborate distinction on the characteristics of hazardous waste destined for recycling, OECD member

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[263] Clapp, *supra* note 11, at 508; CLAPP, *supra* note 74, at 58–59; Kitt, *supra* note 76, at 490–93; PELLOW, *supra* note 78, at 199.
[264] *COP-1 Report (UNEP/CHW.1/24)*, *supra* note 56, ¶ 11.
[265] Decision of the Council concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations No. C(92)39/FINAL (OECD Council Mar. 30, 1992).
[266] KUMMER, *supra* note 18, at 161–62; CLAPP, *supra* note 74, at 60.

states were not ready to initiate a discussion on the North-South total ban under the Basel Convention. The EU also adopted a similar approach in the 1993 Council Regulation (EEC) on the Supervision and Control of Shipments of Waste within, into and out of the European Community.[267] However, the regulation also applies to some export outside of the EU that were Parties to the Basel Convention or had agreements accordant with Article 11 of the Basel Convention, under the principle of environmentally sound management.

Anticipating the foreseeable deadlock on the recycling issue, the Bureau of the Conference facilitated the adoption of Decision BC-I/16 which mandates Technical Working Group (TWG) to work on the recycling issue, and the adoption of Decision BC-I/22. The preambular of Decision BC-I/22 confirms several important elements: 1) it confirms that the aims of Basel Convention includes the waste minimization principle and proximity principle to achieve environmentally sound management of hazardous waste; 2) it also confirms the progress under the Bamako Convention, the Lomé Convention IV, and negotiations leading up to UNCED on calls to prohibit transboundary movement of hazardous wastes to developing countries; 3) it relates the issue of export ban to the clarification process on recovery operation mandated by BC-I/16; and 4) also reminds the obligation of all Parties, including industrialized countries, to prohibit export to countries exercising its rights to ban imports of hazardous wastes. Decision BC-I/22 was the first to "request" (paragraph 1) developed countries to prohibit transboundary movement of hazardous waste *for disposal* to developing countries. The adoption may allow for the consideration that the consensus that the discussion of a North-South total ban was acknowledged. An interesting point was stated in paragraph 4, "Further requests developing countries to prohibit the import of hazardous wastes from industrialized countries." It requested developing countries to prohibit hazardous waste import for

[267] Council Regulation (EEC) on the supervision and control of shipments of waste within, into and out of the European Community (Feb. 1, 1993). Consistent with the development under Basel Convention, the regulation was later repealed and updated with the adoption of; Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, OJ L 1 (Jul. 12, 2006).

disposal from developed countries, a similar approach also employed by Lomé IV Convention, but would be removed from future consensus on Ban Amendment.[268]

The decision may be considered to indicate two considerations. First, it might indicate that the North-South total ban was developing into a norm among the Parties to the Convention while also emerging as a regional legal norm through Bamako and Lomé IV. The consensus reached can be considered as a decision which kept the issue of North-South total ban open for future negotiations by requesting Parties to report on its implementation (paras. 3 and 5) and for Secretariat to report to the COP-2 (paragraph 6) while also recalling BC-I/16 on the transboundary movements of hazardous wastes destined for recovery operations, which was mandated to be included into the agenda of TWG and was addressed during the 2nd session of Ad hoc OWEG for implementation.[269] Second, this decision can also be considered to indicate a gathering consensus on further advances on the North-South total ban, building upon developments in other international and regional arena mentioned by the decision (the Bamako Convention, the Lomé IV Convention, and UNCED negotiations). Political developments in such arena, especially with the adoption of Agenda 21 as an international instrument, might provide an incentive in adopting the North-South total ban. On the other hand, it was clear that the stumbling block from COP-1 was the issue of transboundary movement of hazardous wastes destined for recycling and recovery operations.[270]

During COP-2, the negotiation on the North-South total ban progressed onto not only for final disposal, as previously adopted in BC-I/22, but also for recycling, and was held under working group chaired by Finland, and assisted by Senegal and Canada as the

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[268] Article 39(1), *Lomé Convention IV*.
[269] See generally *Report of the Second Session of Open-Ended Ad Hoc Committee for the Implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Other Wastes and Their Disposal*, No. UNEP/CHW/C.1/2/14 (Dec. 1994).
[270] Lucier & Gareau, *supra* note 81, at 498; PELLOW, *supra* note 78; Greenpeace, *The Waste Invasion of Asia: A Greenpeace Inventory* (Jan. 1994); See also elaboration on the issue of recycling on later part on this chapter.

contact group.[271] The contact group received proposals from various countries, essentially supporting the North-South total ban.[272] Despite not submitting any notable proposal, OECD and especially the JUSCANZ countries were still adamant that the transboundary movement of hazardous waste destined for recycling and recovery from developed countries to developing countries should be allowed, but only under strict control system and if the importing states possess the technological capabilities to recover raw materials from hazardous wastes.[273]Their interpretation of the Convention's aim was based on 'ESM as the least standards' to allow transboundary movements of hazardous wastes. This interpretation assumes that as long as ESM can be achieved in exporting and importing states, any transboundary movement of hazardous waste destined for recycling and recovery operations should be allowed since it might provide economic benefits for all Parties involved. On the contrary, developing countries argue that such view disregards the complex and often prone-to-error of implementation system in developing countries, the responsibilities of developed countries to minimize and manage its own wastes (in accordance with waste minimization, proximity principle, and least transboundary movement principle) and might not echo the aim of provisions under Article 4(2) which was to focus on waste minimization and environmentally sound disposal, *taking into consideration* social, technological and economic aspects of the importing states.

BC-II/2 decides to prohibit immediately all transboundary movements of hazardous wastes destined for final disposal from OECD to non-OECD States; and to phase out by 31 December 1997, and prohibit as of that date, the export destined for recycling or recovery operations.[274] It is interesting to note that despite fierce opposition, the OECD countries especially JUSCANZ countries consented to reach a consensus on the decision. Their statements indicate the intention behind their willingness: they view the adoption did

[271] *COP-2 Report (UNEP/CHW.2/30)*, *supra* note 142, ¶¶ 16 & 27.
[272] *Id.* ¶ 18.
[273] *Id.* ¶ 24.
[274] ¶¶ 1–2 of BC-II/12, annexed on *COP-2 Report (UNEP/CHW.2/30)*, *supra* note 142.

not constitute an amendment to the Convention.[275] COP decision, in their view, did not directly affect rights and obligations of Parties to the Convention, since the adoption was adopted without individual written consent from the states, consistent with principle of sovereignty.[276] The developed countries may view that despite the compromise, it would need an amendment for any call to ban export of hazardous wastes to have any effect and the very-limiting nature of North-South total ban would dissuade other countries and potential party to the Basel Convention into accepting it as an amendment. At the time, this decision was noteworthy, since it might affect the obligation of Parties under Article 4 of the Convention, which might be seen as to overlook the ESM principle and forthright prohibit any transboundary movement of hazardous wastes from OECD to non-OECD countries, regardless whether in accordance to requirements of ESM or not, and alter the 'restriction' nature of the regulatory scheme to a 'restriction and prohibition' combination.

Developed countries viewed that the Ban Amendment would be inconsistent with the ESM principle since transboundary movement of hazardous waste destined for recycling offers the potential to reduce the quantity of residuals, thus prohibiting such movement might not support the aim of minimizing the generated wastes as the aim of ESM. Developed countries were determined that a regulated 'waste trade' would indeed be environmentally sound and efficient, and the North-South ban might limit potential technological and knowledge transfer to developing countries. On the other hand, the ESM principle was originally intended to exert a particular function in a specific context of waste management hierarchy, namely to prioritize waste minimization within the generating states and the least transboundary movement of hazardous waste, rather than utilizing such

[275] See statements by representatives of Japan, Australia, and Canada on *id.* ¶¶ 42–47.
[276] Some observers argues that consensus process might be reached through intensive negotiations to mold strongly-held position into a compromise, yet that compromise might mask remaining disagreements and unwillingness, and in the case of the adoption of BC-II/12, it was indeed the case for OECD countries. See e.g., Brunnée, *supra* note 165; Patrick Szell, *Decision Making under Multilateral Environmental Agreements Other International Developments*, 26 ENVTL. POL'Y & L. 210 (1996); CHIN L. LIM & OLUFEMI A. ELIAS, THE PARADOX OF CONSENSUALISM IN INTERNATIONAL LAW (Brill Nijhoff 1998).

movement as a means to minimize those wastes and its residues.

Prior to the convening, during the COP-3 there was an unexpected sharp increase in both international community's attention and the number of party members to be almost 100 Parties, providing unexpected support for the Ban Amendment proposal [277] All Parties also contended that any transboundary movement from developed countries to developing countries destined for final disposal should be banned.[278] The increasing number of Parties and the shared view provided a basis for consensus-building in adopting a decision on the issue. EU, particularly the Nordic countries, took a prominent role in assisting the Bureau in facilitating a consensus, arguing that they indeed already had regional rules consistent with the provisions of Basel Convention. At the end of negotiation, OECD countries argued that despite their consent and appreciation of the consensus, they were not ready to ratify the amendment *before* any clear definition on hazardous characteristics could be proposed by the TWG.[279] This might be a strategy since at the time TWG had just started their deliberation on the issue and by referring to its results would only 'extend' the ratification process on the Ban Amendment.[280] They were concerned on the lack of clarity on which recyclable materials would be subject to Ban Amendment's provisions.

Therefore, it seems that the consensus could be reached because of several developments. First, the issue of hazardous criteria on which wastes can be exported for recycling and recovery operations was delegated to TWG to be further clarified. This deliberation under TWG subsequently resulted in the adoption of Annex VIII and Annex

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[277] Environmental organizations also took major part in mainstreaming the issue of total ban of hazardous wastes and affecting the position of delegates. See e.g., Kempel, *supra* note 89; TOLBA & RUMMEL-BULSKA, *supra* note 64; *Report of the Third Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.3/34, ¶ 3 (Oct. 1995).

[278] *COP-3 Report (UNEP/CHW.3/34)*, *supra* note 277, ¶¶ 27–29.

[279] See statement made by Canada on Annex II and Australia on Annex III to *COP-3 Report (UNEP/CHW.3/34)*, *supra* note 277.

[280] The preparation would not be concluded until 1997 by the time of COP-4. See *Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 12th Session*, No. UNEP/CHW/WG.4/12/10 (Feb. 1997).

IX on hazardous wastes and non-wastes. Second, the issue of Annex VII as one of the most contentious issues was also 'delegated' through the probability of an 'exit strategy' using Article 11, and that OECD countries' view such strict criteria would discourage countries-in-transition to ratify the Ban.[281] Third, another issue was the ambiguous wording on the requirement under Article 17 paragraph 5 on the entry into force of an amendment under the Convention which would also need to be addressed, further complicating the discussion on Ban Amendment. Fourth and perhaps the most important elements were the shifting attitude of a number of developing countries, most notably EEC countries, exhibiting what can be considered as an emerging acceptance of North-South total ban as a norm under the Convention.

3.3 The North-South Total Ban as an International Norm

Since as early as June 1988, the issue of North-South total ban was already part of the negotiation in the drafting process of the Basel Convention. It was by developing countries, particularly African countries, who were concerned that the draft convention put "too much attention to regulate rather than to prohibit" any transboundary movement of hazardous wastes.[282] They advocated for a total ban provision on a global scale which would prohibit any transboundary movement of hazardous wastes to developing countries as the only means to impose obligation for developed countries as top exporters of hazardous waste to manage and dispose their own wastes, while also protecting developing countries from being overwhelmed by imported hazardous wastes.

In part due to the undesirable direction of the negotiation, African countries kickstarted a separate regional negotiation to draft a region-exclusive legal instrument in

[281] Lucier & Gareau, *supra* note 81.
[282] Jamaican delegate was the first to introduce the total ban proposal, noting that the lack of capacity in developing countries to manage imported hazardous wastes. See *Second Session Report (UNEP/WG.186/3)*, *supra* note 91; On the definition of what is considered as total ban under this study, refer to Chapter 1. See also TOLBA & RUMMEL-BULSKA, *supra* note 64, at 103; Gwam, *supra* note 62, at 26.

banning transboundary movement of hazardous wastes into the region.[283] This separate negotiation raised some concerns from other participating states that it may obstruct the negotiation process and prevent the adoption of the draft convention, which required intervention by then-Executive Director of UNEP, Mr. Mostafa Tolba.[284] African delegates would agree not to obstruct the draft convention's negotiation process. However, a small group of African delegates still resisted the negotiation process even until the Conference of Plenipotentiaries, characterised by Tolba and Rummel-Bulska as "leading to a resi stance to the signature of the Convention and even its adoption."[285] As a compromise, Article 15 paragraph 7 stated that:

> *"The Conference of the Parties shall undertake three years after the entry into force of this Convention, and at least every six years thereafter, an evaluation of its effectiveness and, if deemed necessary, to consider the adoption of a complete or partial ban of transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information."*

The article confirmed and mandated that the negotiation on complete or partial ban would still be considered within the Convention, under the framework of "evaluation".[286] The notion of 'if deemed necessary' depends on the considerations within the COP as a convention body, and any consensus regarding the matter may be reached through means of COP decision, which indeed was reached during COP-2 in 1995.[287] This elaboration on the context of North-South total ban demonstrates its intricacies and has been a relevant issue of the Basel Convention.

As this study have elaborated on Chapter 1, in IR's international regime theory, 'norms' play a central role in the pursuit of cooperation. It refers to 'expectations' which

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[283] The instrument would later be adopted in 1991. See *Bamako Convention*.
[284] TOLBA & RUMMEL-BULSKA, *supra* note 64, at 108–9.
[285] *Fourth Session Report (UNEP/WG.190/4 & UNEP/WG.190/4/Corr.I)*, *supra* note 94; See also TOLBA & RUMMEL-BULSKA, *supra* note 64, at 109–12.
[286] This study treats the notion 'complete ban' as synonymous with total ban as elaborated in Chapter 1. Accordingly, the notion 'partial ban' is treated as synonymous with 'limited ban',
[287] See Decision BC-I/22, on *COP-1 Report (UNEP/CHW.1/24)*, *supra* note 56, ¶ 3, which requests developing countries to prohibit the import of hazardous wastes from industrialized countries; See also BC-II/12, on *COP-2 Report (UNEP/CHW.2/30)*, *supra* note 142, in which the ban was essentially adopted through decision by consensus.

provides the foundation for an agreement which subsequently facilitates cooperation. As such, this study follows Katzenstein's definition of norms as "collective expectations for the proper behavior of actors with a given identity."[288] International norms might operate as a 'constitutive norm' that create new actors, interests, or categories of action; it might also promote and constraint behavior, thus considered as a 'regulative norm'.[289] However, this study further follows a less-mentioned category of norms called 'prescriptive norm', which refers to the way in which an actor ought to behave.[290] Since norms involve standards of 'appropriate' or 'proper' behavior, it is impossible to separate the intersubjective and prescriptive (or evaluative) elements of norms, and the international community's expectation plays a significant role in setting the standards.[291] This category of norm helps in understanding the emergence of North-South total ban as an emerging norm built upon the convergence of expectation to establish a standard to evaluate the 'oughtness' of states' behavior, both developed and developing countries, in regard to the environmentally sound management of hazardous wastes.

3.3.1 Agenda 21 and regional agreements related to the total ban

Between the adoption of Basel Convention in March 1989 and COP-1 of the Convention held in December 1992, attempts in incorporating the North-South total ban emerged in other regional and international agreements, either in the form of import prohibition from developed countries as in the case of the Bamako Convention, or export prohibition to developing countries as observed in the Fourth ACP-EEC Convention.[292] Other non-

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[288] See Peter J. Katzenstein, *1. Introduction: Alternative Perspectives on National Security*, *in* THE CULTURE OF NATIONAL SECURITY: NORMS AND IDENTITY IN WORLD POLITICS 27 (Peter J. Katzenstein ed., Columbia University Press Oct. 1996); John Gerard Ruggie, *What Makes the World Hang Together? Neo-Utilitarianism and the Social Constructivist Challenge*, 52 INTERNATIONAL ORGANIZATION 855 (1998).
[289] Katzenstein, *supra* note 288, at 5.
[290] Christopher Gelpi, *Crime and Punishment: The Role of Norms in Crisis Bargaining*, 91 AMERICAN POLITICAL SCIENCE REVIEW 339 (Jun. 1997); Finnemore & Sikkink, *supra* note 37, at 891.
[291] Finnemore & Sikkink, *supra* note 37, at 891.
[292] *Lomé Convention IV*, [hereinafter Lomé Convention IV].

binding developments also emerged, *inter alia* the discussion in Zone of Peace and Cooperation of the South Atlantic and Latin America on a regional agreement on import ban,[293] and Non-Aligned Movement (NAM) declaration in September 1989 in which one of the points was a proposal to developed countries to "adopt rigorous administrative measures and legislation to ban the export of toxic and other hazardous wastes to the territories of other, especially developing countries". [294] These shifts to other international agreements are logical since any discussion on the total ban under the Basel Convention could not be pursued further until its entry into force and the COP-1 to be convened. Furthermore, these agreements provided a platform for countries to exchange views and consolidate their position on the issue before the convening of COP-1.[295]

The Rio Summit, held in June 1992, preceded by the entry into force of the Basel Convention in May 1992, showcased a heightened commitment in addressing the issue of transboundary movement of hazardous waste during its discussions and adopted a specific chapter on Agenda 21 which further elaborates the international community's commitments on the environmentally sound management of hazardous waste.[296] Article 20 paragraph 7(a) confirms the waste minimization principle as a principle consistent with environmentally sound management principle, whereas paragraph 20 paragraph 7(d) calls for "elimination of the export of hazardous wastes to countries that, individually or through international agreements, prohibits the import of such wastes", closely resembles Article 4 paragraph 1(b) of the Basel Convention.[297] The adopted chapter was negotiated based on

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[293] *Zone of Peace and Cooperation of the South Atlantic*, No. A/49/524 (Oct. 1994).
[294] *9th Summit Conference of Heads of State or Government of the Non-Aligned Movement*, No. A/44/551 (Sep. 1989), [hereinafter Belgrade Declaration].
[295] Instead of characterized as 'scaled down', as some commentators observed, the push for global was instead 'put on hold' since there was no progress could be made under Basel Convention before the convening of COP-1. Cf. BRITTA MEINKE, MULTI-REGIME-REGULIERUNG: WECHSELWIRKUNGEN ZWISCHEN GLOBALEN UND REGIONALEN UMWELTREGIMEN (Deutscher Universitätsverlag 2002); Sebastian Oberthür, *Interplay Management: Enhancing Environmental Policy Integration among International Institutions*, 9 INT ENVIRON AGREEMENTS 371 (Aug. 2009).
[296] *Agenda 21 (U.N. Doc. A/CONF. 151/26/Rev.1)*, *supra* note 179, ch. 20.
[297] *Id.*

a common position agreed between G-77 countries and China during one of the preparatory meetings of Rio Summit.[298] At its core, the wording of Article 20 subparagraph 7(d) is particularly important since it calls for "elimination of the export of hazardous wastes" to countries which have prohibit such import. An exercise by a state (or a group of states through an agreement) to prohibit import of hazardous wastes does not necessarily stipulate any obligation for state of export. Its obligation to refuse import falls on the import-prohibiting states, but the wording of Article 20 subparagraph 7(d) seems to distribute the obligation both to exporting and importing states.

Chapter 20 does not 'dictate' the direction of the total ban discourse under the Basel Convention. Rather, its adoption indicates a heightened interest on the issue. The adoption of Chapter 20 as a universal normative document was made possible through two aspects surrounding its adoption. First, its non-binding nature which provides more freedom for agreeing a stricter commitment on a global scale. At the time, OECD and EU agreements were either limited to regional approach or having disproportionate representation between the North and South countries, while Cairo Guidelines did not provide more detailed provisions and was a guideline rather than a written commitment actively negotiated between countries. Second, Chapter 20 was discussed by many states previously involved during the negotiation and adoption stages of Basel Convention, carrying with them concepts and ideals both agreed and debated under the Convention's negotiation process yet nevertheless are not something novel to the Parties involved in the discussion on Chapter 20. This type of 'forum shopping' strategy employed by relevant countries further spread the discourse and stimulates the international discourse on the issue of transboundary movement of hazardous wastes, and Chapter 20 also provides Parties

[298] Indeed, G-77 was not a regional movement in geographical sense but rather considered as a political grouping. Yet it mainly consists of developing countries from Africa, Americas and Asia, proponents of the global ban. China, despite not a member of G-77, provides great negotiating leverage for the group going into COP-1. See Jim Puckett & Cathy Fogel, *A Victory for Environment and Justice: The Basel Ban and How It Happened* (Greenpeace International 1994).

coming to COP-1 with normative contexts on the issue.[299]

Regional agreements also help consolidated a growing consensus on the North-South total ban, *inter alia,* the Lomé Convention IV, the Bamako Convention, and the Waigani Convention. The Lomé Convention IV, adopted in December 1989, was the first binding multilateral agreement prohibiting North-South movement of hazardous wastes. Article 39 paragraph 1 prohibits export of hazardous wastes (defined by referring to Annex I and II of Basel Convention) from EEC countries to African, Caribbean, and Pacific (ACP) states while at the same time mandates ACP states to prohibit import from EC and any other countries. The provision does not differentiate the intended destination; it may encompass hazardous wastes destined both for final disposal and recycling and recovery operation. At the same time, the provision creates a disparity of obligation between EEC (now EU) and ACP states; whereas ACP states fundamentally have the obligation to prohibit imports of hazardous wastes from any other states, EU member states have the obligation to prevent export of hazardous wastes only to ACP states, opening up a possibility for EU member states to export their hazardous wastes to third states.[300] Paragraph 3 of Article 39 stipulates the scope of the Lomé Convention IV, in which the Convention refers the definition of hazardous wastes to Annex I and II of Basel Convention without additional condition of having any Annex III hazardous characteristics, thus providing a broader scope of wastes to be covered by the Lomé Convention IV.

Another example is the Article 4 paragraph 1 of the Bamako Convention which rules

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[299] Forum Shopping is a concept commonly associated with international relations study attempting to explain a state's strategy to be involved in several multilateral forums or arena to either further its national interests or choose one which would best serve its national interests. On the concept of 'forum shopping', especially in international environmental politics and law, see generally Alexander Gillespie, *Forum Shopping in International Environmental Law: The IWC, CITES, and the Management of Cetaceans*, 33 OCEAN DEVELOPMENT & INTERNATIONAL LAW 17 (Jan. 2002); Hannah Murphy & Aynsley Kellow, *Forum Shopping in Global Governance: Understanding States, Business and NGOs in Multiple Arenas*, 4 GLOBAL POLICY 139 (2013); ALETTA MONDRÉ, FORUM SHOPPING IN INTERNATIONAL DISPUTES (Palgrave Macmillan UK 2015); Stephanie C. Hofmann, *The Politics of Overlapping Organizations: Hostage-Taking, Forum-Shopping and Brokering*, 26 JOURNAL OF EUROPEAN PUBLIC POLICY 883 (Jun. 2019).

[300] Nevertheless, the import ban does not prohibit hazardous wastes between EU member states and between ACP member states. See KUMMER, *supra* note 18, at 108.

out any import of hazardous wastes for any reason into Africa from non-contracting Parties, banning any import and prevented any non-African countries to export such wastes into Africa. Article 4 paragraph 2(a) stipulates the anti-dumping practices on internal waters and waterways, and from dumping or incinerating in any waters, including the high seas by the Parties, but only if there is no international agreement to regulate such matter. These obligations required African states to ban the importation of hazardous wastes into Africa and to prevent any dumping practices, which emerged because of Africa's concern regarding its historical use as a dumping ground by the developed nations.[301] Non-African States should also take into consideration the inclusion of precautionary principle in Article 4 paragraph 3(f) to be observed by Parties. This inclusion extends the Bamako Convention's mandate to wastes that have yet to be scientifically proven as hazardous but *may* be hazardous. Indeed, the inclusion of this principle reflects the conditions and urgent needs of African countries at the time, *inter alia* several major incidents related to transboundary movement of hazardous wastes and the insufficient technology and infrastructures available in the region to adequately manage such wastes in an environmentally sound way. Thus, it may be an appropriate approach towards the issue, since the lack of information regarding human and environmental damages caused by transboundary movement of hazardous wastes is a major challenge in understanding the full extent of the problems, especially for African region.[302]

3.3.2 Emerging Norm of North-South Ban

Kummer argued that the inclusion of ban provisions in both the Lomé Convention IV and

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[301] C. Russel H. Shearer, *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste*, 23 ENVTL. L. 141 (1993).
[302] On the difficulty to fully grasp the extent of the problems, see Andrew Webster-Main, *Keeping Africa out of the Global Backyard: A Comparative Study of the Basel and Bamako Conventions*, 26 ENVIRONS: ENVTL. L. & POL'Y J. 65 (2002); Howard S. Kaminsky, *Assessment of the Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa Recent Development*, 5 GEO. INT'L ENVTL. L. REV. 77 (1992–1993).

the Bamako Convention and also numerous non-binding instrument and individual import ban by countries indicates a "growing consensus" on the need for a North-South total ban of hazardous wastes.[303] This study would further suggest that the prior-described developments indicate a more established form of phenomenon; it was an emerging norm of the North-South total ban. From international legal study perspective, this emerging norm may belong into a category which Chodosh defined as *declarative international law*,[304] a concept similar with customary international law without one key aspect: it lacks either of the two important elements of customary international law as defined by Article 38 of the Statue of International Court of Justice: 1) accepted by the generality of states; and 2) *opinio juris sive necessitatis*.[305] While "declarative law" should not be treated on the same 'level' as customary rules of international law, it nonetheless represents a form of norms in international law, "albeit a tentative and nascent one".[306]

Bodansky also suggests a similar distinction of category, reflecting a "not-so customary" international law based on what states say and declare rather than what states practice.[307] This is accurate when considering the methodology utilized in ascertaining the

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[303] KUMMER, *supra* note 18, at 109; Greenpeace International, *The Transboundary Movement of Hazardous and Nuclear Wastes in the Wider Caribbean Region - A Call for a Legal Instrument within the Cartagena Convention*, No. 7 (1991) on countries which have banned imports of hazardous wastes, both through regional conventions and individually, within months of the adoption of Basel Convention.

[304] Chodosh argued for the emergence of 'declarative law' as an emerging body of international law outside of treaty or custom, yet does not necessarily a "non-law". See Hiram E. Chodosh, *Neither Treaty nor Custom: The Emergence of Declarative International Law*, 26 TEX. INT'L L. J. 87 (1991); See also David P. Fidler, *Challenging the Classical Concept of Custom: Perspectives on the Future of Customary International Law*, 39 GERMAN Y.B. INT'L L. 198 (1996).

[305] Chodosh, *supra* note 304, at 89.

[306] Borrowing from Pospíšil's arguments, Chodosh draws his arguments that while customary law has both qualitative, psychological element (opinio juris sive necessitatis) and quantitative, sociological, element (generality of practice), the lack of either element should be regarded as declarative law, with distinction between declarative ius (accepted by minority of states) and declarative lex (declared to be the law by an even majority of states yet either still not accepted in fact or as non-binding norm). Cf. *Id.* at 90; LEOPOLD J. POSPÍŠIL, ANTHROPOLOGY OF LAW: A COMPARATIVE THEORY (Harper & Row 1971).

[307] In his argument, Bodansky points out that "[i]n the environmental realm, however, verbal claims and physical behavior often diverge." Thus, focus on verbal practice represents a different ontology of international law; international environmental norms reflect not the regularity of state's behavior, but more on "how states speak to each other." Later, in his 2010 book, he would categorize such norms as general principles. See Daniel Bodansky, *Customary (And Not So Customary) International Environmental Law*, 3 INDIANA JOURNAL OF GLOBAL LEGAL STUDIES 105 (1995); BODANSKY, *supra* note 107, at 199.

existence of a customary international environmental law, that is, through written and oral texts produced by states and even international non-state actors such as courts, international organizations, and legal scholars. It differs from what traditional account suggests: to confirm the minimum authority of a customary norm, one which require an empirical approach of systematic survey the 'generality' of state behavior.[308] In environmental law, where state declarations and practical behavior often diverge, observing written and oral texts to establish a generality of state practice might not be adequate in identifying a customary rule.[309] Even international courts as the most authoritative source of observation rarely apply such norms on international environmental cases.[310] Thus, it may provide potential influence in setting the terms of and framework in which negotiations take place while also operates to guides future decision-making rather than directly regulate state's behaviors thus providing evaluation standards.[311] It does not prescribe detailed practices on what is permissible and not permissible (as what rules do) but rather establishes an "open-ended test" whose application would depend on the judgment or discretion.[312] As Bodansky put it, this type of norms "…show attitudinal regularities among states and other international actors, …they articulate collective aspiration that play an important role over the longer term".[313]

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[308] Several commentators observed that international lawyer's methodological training is not well-equipped to undertake such survey on 190-plus countries to observe its behaviors in certain aspects. One commentator would use the term 'a herculean task' while other comments that it would take ILC, supported with 'armies of researchers' to sift through all the relevant evidences. See BODANSKY, *supra* note 107, at 198; Stephen Zamora, *Is There Customary International Economic Law*, 32 GERMAN Y.B. INT'L L. 9 (1989).
[309] BODANSKY, *supra* note 107, at 198.
[310] Its lack of application by international courts and arbitral tribunals in international environmental law may also be symptoms of a more general issue: the hesitation of states to go through international courts in resolving their disputes. The ICJ indeed established a Chamber for Environmental Matters in 1993, which was periodically reconstituted until 2006. However, in the Chamber's 13 years of existence no State ever requested that a case be dealt with by it. Bodansky also argued that this is why Trail Smelter still carries a "heavy load" in customary international environmental law, since court/arbitral tribunal resolutions only resolved few environmental problems. See Bodansky, *supra* note 307, at 119; *Chambers and Committees | International Court of Justice*, https://www.icj-cij.org/en/chambers-and-committees (last visited Dec. 2, 2021).
[311] Bodansky, *supra* note 307, at 119.
[312] BODANSKY, *supra* note 107, at 201.
[313] *Id.* at 200.

Bodansky's view of this type of norms as 'articulating collective aspiration' might be similar to the prescriptive norm proposed by Constructivist scholars of International Relations, setting the standard of behavior based on international community's expectations. Thus, this type of norm is a convergence of expectation which shape the behavior of states in a specific context: the banning of transboundary movement of hazardous waste from developed countries to developing countries. This study follows this argument to further argue that the concept of 'declarative law', or 'prescriptive norm' captures the emergence of the North-South total ban as a prescriptive norm on transboundary movement of hazardous wastes on the regional and international sphere. It subsequently provides a context for the North-South total ban discourse under the Basel Convention. Indeed, if the North-South total ban as a norm only strictly developed in certain region, such argument might not be a significant one, but rather only serve in demonstrating the emergence of an isolated regional norm. However, the North-South ban of transboundary movement of hazardous wastes was not limited only to a certain region; it was both explicit and implicitly stated in various international and regional agreements and declarations such as the Bamako Convention, the Lomé IV Convention, the NAM declarations, and G-77 position agreement prior and during Rio Summit.

The norm emergence of the North-South total ban can be elaborated from international relations' perspective. Finnemore and Sikkink propose a concept of "life cycle of norms", consisted of norm emergence, norm cascade, and norm internalization.[314] They argue that in the process of norm emergence, two elements seem play a common role in the creation of most new norms: norm entrepreneurs and organizational platforms from which entrepreneurs act.[315] Norm entrepreneurs are important in the process of norm emergence since they actively attempt to create or frame and to converge attention and

[314] Finnemore & Sikkink, *supra* note 37.
[315] *Id.* at 896.

subsequently expectation to a certain issue by employing language that names, interprets, and dramatizes the norms. Organizational platforms are required by norm entrepreneurs to promote their norms. Oftentimes, norm entrepreneurs work in international institutions that have purposes and agendas which might be more extensive than just focusing on promoting that specific norm and in turn shape the context of the norms promoted by norm entrepreneurs.[316] By applying to the context of the North-South total ban as an international norm, this study identifies that African countries are especially important as norm entrepreneurs throughout the development of this norm, advocating for this norm on various international stages such as the Basel Convention, the Bamako Convention, and the Lomé IV Convention.

3.4 Context of Operationalization: Issues Surrounding Ban Amendment

3.4.1 Interpretation of Article 17 Paragraph 5

The concern regarding the interpretation of Article 17 paragraph 5 on the entry into force of an amendment was touched upon during COP-7, held in 2004, specifically on the expression of "who accepted them". The article provides:

> *"Instruments of ratification, approval, formal confirmation or acceptance of amendments shall be deposited with the Depositary. Amendments adopted in accordance with paragraphs 3 or 4 above shall enter into force between Parties having accepted them on the ninetieth day after the receipt by the Depositary of their instrument of ratification, approval, formal confirmation or acceptance by at least three-fourths of the Parties* ***who accepted them*** *or by at least two thirds of the Parties to the protocol concerned who accepted them, except as may otherwise be provided in such protocol. The amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval, formal confirmation or acceptance of the amendments."*

The question regarding the ambiguity of this provision was brought to light by

[316] See Emanuel Adler & Peter M. Haas, *Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program*, 46 INTERNATIONAL ORGANIZATION 367 (1992); David Strang & Patricia Mei Yin Chang, *The International Labor Organization and the Welfare State: Institutional Effects on National Welfare Spending, 1960–80*, 47 INTERNATIONAL ORGANIZATION 235 (1993); Martha Finnemore, *Norms, Culture, and World Politics: Insights from Sociology's Institutionalism*, 50 INTERNATIONAL ORGANIZATION 325 (1996).

several representatives from developed countries during the discussion on the implementation of Ban Amendment. Three possible interpretations arose on the matter of entry into force of an amendment: *one*, the expression may be interpreted that an amendment will enter into force when three-fourth of *all Parties to the Convention* have deposited their instrument of ratification with the depositary. This interpretation would be commonly associated as the "current-time approach". *Second*, it may be interpreted that an amendment will enter into force once three-fourth of *those Parties who adopted the decision* of amendment have deposited their instrument of ratification to the amendment. This interpretation would require three-fourth of the number of specific Parties who attend COP-3 and adopted the Decision BC-III/1 in order for the amendment to enter into force, which by consequence would exclude newer Parties to the Convention. This interpretation would later be called the "fixed-time approach". Third interpretation was based on second interpretation, but instead of the specific Parties to the Convention, it would only require the deposited instrument of ratification equivalent to three-fourth of the *number of Parties to the Convention present* when the amendment decision was adopted, allowing new Parties to be included.[317] The clarification on the interpretation of Article 17 paragraph 5 should "not be treated separately to the substance of Ban Amendment",[318] since it would affect the required number of ratification and thus may either speed up or slowed down the entry into force of Ban Amendment.

The issue was intensively discussed during COP-8 and COP-9, with one representative confirmed that the Vienna Convention on the Law of Treaties (VCLT) Article 31 paragraph (a) and (b) indeed allows for Parties to adopt decision on the

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[317] Due to the considerable divergence of views on this issue (and the issue of Annex VII which prompted this concern emerged), a further discussion was informally agreed by the parties to be deferred to COP-8. See *COP-7 Report (UNEP/CHW.7/33)*, *supra* note 154, ¶ 56; See also *Communication Transmitted by the President to the Members of the Expanded Bureau Concerning the Interpretation of Article 17, Paragraph 5, of the Convention and the Implementation of Decision III/1 and Compilation of Comments Received from Parties*, No. UNEP/CHW.8/INF/20 (Sep. 2006).

[318] *President's Note on Art. 17(5)*, *supra* note 317, pt. Background brief.

interpretation.[319] At the time, the majority of representatives voiced their supports for a decision to clarify the number in order to move forward in the preparation of implementing the Ban Amendment. The Parties informally agreed to move forward with two interpretations: one which interpret the required number as at the time of the deposit of each instrument of ratification (current-time approach), in accordance with a legal advice issued on 8 March 2004 by the United Nations Office of Legal Affairs,[320] and the other which would adhere to the three-quarters of the number of Parties at the time of adoption of amendment (fixed-time approach), supported by the majority of developing countries and Basel Action Network (BAN) as representative from environmental organizations.[321] A third interpretation of the expression would be abandoned since it didn't received much support and would be a too moderate requirement.

Due to the divergence of views on the interpretation even after two COPs,[322] the Secretariat and the President of COP-9 shifted to a more political approach, introducing a proposal on the possible way forward on the Ban Amendment, including the issue of Article 17 paragraph 5 interpretation through an informal country-led initiative (CLI) led by Indonesia-Swiss to facilitate its immediate entry into force.[323] The Indonesia-Swiss CLI convened for three times in June 2009, January 2010, and September 2010, addressing the underlying issues behind the slow ratification such as economic and legal gap in order to propose a "possible way forward".[324] These informal meetings would subsequently drafted an 'omnibus' decision to be discussed by COP-10, in which the CLI proposed adopting a

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[319] VCLT was also recalled and recognized in BC-VIII/30, annexed on *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals at Its Eighth Meeting*, No. UNEP/CHW.8/16, 109 (Jan. 2007).
[320] See Annex II, *id.* at 55–60.
[321] *COP-9 Report (UNEP/CHW.9/39)*, *supra* note 155, ¶ 26.
[322] The divergence could not be resolved not because of the numbers, but rather because of the political position applied by advocates of the current-time approach. Their numbers do not even close to one-third of the number of Parties. See Basel Action Network, *BAN Comments on Three Swiss-Indonesian Country Led Initiative (CLI) Documents*.
[323] Refer to Annex of Decision BC-IX/26, annexed on *COP-9 Report (UNEP/CHW.9/39)*, *supra* note 155.
[324] Several elements were identified such as standards for ESM, ESM-transboundary movement linkage, ensuring that vulnerable countries do not receive wastes that they do not want, legal clarity, improvement of the Convention's tools, capacity building, illegal traffic, and BCRCs. See *CLI-1 Report*, *supra* note 12.

'fixed-time' approach for amendments to the Convention to enter into force "to interpret the provisions of paragraph 5 of Article 17 of the Convention in a way that requires the minimum number of ratifications to this Amendment".[325] The proposed interpretation states that:

> *Resolves, without prejudice to any other multilateral environmental agreement, that the meaning of paragraph 5 of Article 17 of the Basel Convention be interpreted so as to mean that the acceptance of three-fourths of the Parties at the time of the adoption of the amendment is required for the coming into force of such amendment, noting that such an interpretation of paragraph 5 of Article 17 does not compel any Party to ratify an amendment.*

The paragraph on interpretation in the draft omnibus decision and the adopted decision was not considerably changed except for the wording of "resolves" to "agreed" and other minor housekeeping, since it was already supported by the majority of Parties to the Convention which indeed favor the fixed-time approach. The interpretation adopted was stated under Part A paragraph 2 of BC-10/3:[326]

> *Agrees, without prejudice to any other multilateral environmental agreement, that the meaning of paragraph 5 of Article 17 of the Basel Convention should be interpreted to mean that the acceptance of three-fourths of those Parties that were Parties at the time of the adoption of the amendment is required for the entry into force of such amendment, noting that such an interpretation of paragraph 5 of Article 17 does not compel any party to ratify the Ban Amendment.*

The consensus on the interpretation of Article 17 paragraph 5 was the first one of such approach to be employed under the Convention. It is binding in the sense that consensus relating to an interpretation adopted by COPs can be considered as subsequent agreements and/or subsequent practices under VCLT Article 31 paragraph (a) and (b), and as set out by Basel Convention's COP Rule of Procedures,[327] a consensus indeed is considered an agreement under COPs. This adoption by formal decision-making was intended to address an interpretation issue which would be accepted by all Parties and to settle any further debate regarding the interpretation of Article 17 paragraph 5.

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[325] *CLI Explanatory Note*, *supra* note 158.
[326] Decision BC-10/3, annexed on *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.
[327] Refer to Rule 40 of *ROP COP (UNEP/CHW.1/3/Rev.1 and UNEP/CHW.1/3/Rev.1/Corr.1)*, *supra* note 164.

3.4.2 The Ban Amendment and Article 11

Article 11, a provision which provides Parties to Convention the possibility to enter into bilateral, regional, or multilateral agreements with non-Parties, was also among the most contentious issues during the deliberation of not only Basel Convention, but also the Ban Amendment. The issue of compatibility between Article 11 and Decision BC-III/1 arose during the later sessions of COP-3, especially from those who considered BC-III/1 as problematic, such as JUSCANZ countries and representatives from industry sector. Australia, in its separate statement, claimed that Article 11 to be an indispensable provision of the Convention since it provides Parties with rights to enter into separate agreements or arrangements and as such "do not consider that the text we have just adopted removes that right", referring to BC-III/1 export ban, implicitly assumes that Article 11 indeed may circumvent requirements established by the decision.[328] New Zealand shared similar concerns, citing to the role of bilateral agreements in the implementation of Ban Amendment.[329] Such sentiment was also supported by representatives from big producers and industry organizations, arguing that not allowing separate agreements or arrangements under Article 11 would be contradictory to WTO rules.[330] On the other hand, developing

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[328] Statement made by Australia following the adoption of the amendment decision by consensus. See *COP-3 Report (UNEP/CHW.3/34)*, *supra* note 277, ¶¶ 22–23.

[329] See New Zealand's comment on *id.* ¶ 51(xii); New Zealand would later recall their statement during the 10th session of Technical Working Group, and argued that such agreement would be possible once Ban Amendment entered into force. See *Report of the Technical Working Group on Tenth Session*, No. UNEP/CHW/WG.4/10, ¶ 44 (Apr. 1996).

[330] The implication of the entry into force of Ban Amendment to global trade, especially its relation with GATT/WTO rules was extensively studies and argued, with three groups either opposed, wait-and-see, and in favor of Ban Amendment. For commentators arguing that Article 11 should be allowed to circumvent Ban Amendment since Ban Amendment would conflict with GATT/WTO rules, see Maria Isolda P. Guevara & Michael Hart, *Trade Policy Implications of the Basel Convention Export Ban on Recyclables from Developed to Developing Countries* (May 1996); For comments taking a neutral grounds, see James Crawford & Philippe Sands, *Article 11 Agreements under the Basel Convention* (1997); For comments in favor of the argument that Article 11 should not circumvent Ban Amendment, see David A. Wirth, *Trade Implications of the Basel Convention Amendment Banning North-South Trade in Hazardous Wastes*, 7 REV. EUR. COMP. & INT'L ENVTL. L. 237 (1998); Krueger, *supra* note 13; Keisaku Higashida, *Trade in Secondhand Goods and Recyclable Materials, Monitoring of Illegal Trade, and Import Quotas on Legal Trade*, 23 THE INTERNATIONAL ECONOMY 195 (2020).

countries supported by environmental organizations argued that since Article 11 does not provide exception to Ban Amendment, other legal instruments which may circumvent requirements of Ban Amendment should not be allowed. They emphasize that such possibility was ruled out during the negotiation of COP-3.[331] EU was also in the opinion that any bilateral, multilateral, or regional agreements or arrangements "will no longer be possible after 1 January 1998 as far as exports of hazardous waste from the EC to non-OECD countries are concerned".[332]

In order to assess the issue between Ban Amendment and Article, elaboration on Article 11 would provide contexts on the debates. The Article states that:

> *[1] Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.*
>
> *[2] Parties shall notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements referred to in paragraph 1 and those which they have entered into prior to the entry into force of this Convention for them, for the purpose of controlling transboundary movements of hazardous wastes and other wastes which take place entirely among the Parties to such agreements. The provisions of this Convention shall not affect transboundary movements which take place pursuant to such agreements provided that such agreements are compatible with the environmentally sound management of hazardous wastes and other wastes as required by this Convention.*

Article 11 provides a possibility for Parties to the Convention to "enter into bilateral, multilateral, or regional *agreements or arrangements*…. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries." There are two important things to note regarding the wording of Article 11, especially paragraph 1: the type of legal instruments mentioned and its

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[331] *TWG-10 Report (UNEP/CHW/WG.4/10)*, *supra* note 329, ¶ 46; See also *BAN Annotated Agenda - Basel Action Network Wiki*, http://wiki.ban.org/BAN_Annotated_Agenda (last visited Dec. 22, 2021).
[332] *TWG-10 Report (UNEP/CHW/WG.4/10)*, *supra* note 329, ¶ 42; L. Kramer, *EU Commission Legal Opinion on Article 11* (European Commission Directorate-General Environment Oct. 1994).

reference to ESM as the standard for such instruments. First, this provision provides two types of instruments, "agreement" and "arrangement". An examination with VCLT Article 2 paragraph 1(a) would suggest that "*agreement*" refers to a convention or treaty established between two or more states.[333] The term '*arrangement'*, on the other hand, requires further clarification since it was not clear from the outset. The term was introduced by the Fourth Revised Draft Convention in August 1988 yet further clarification on the intention of this introduction was not found on the negotiation records.[334] It cannot be synonymous with the notion of 'agreement' since it would render such introduction ineffective, adding nothing new to the distinction between the two notions. The only possibility is that 'arrangement' may refer to a legal instrument which is not a convention or treaty (as agreement) but still impose binding obligation for Parties involved. Such form 'arrangements' may be observed in EU Waste Management Legislation and OECD rules, not on the same legal formality with treaty, but binding to their members nevertheless.[335]

The second key aspect of Article 11 is its reference to ESM standard in the wording of "*no less environmentally sound* those provided for by this Convention." One approach to interpreting this requirement is to refer to the definition of ESM provided in Article 2 paragraph 8. But, as previously elaborated in Chapter 2, despite the development of ESM principle under the Convention, the definition of ESM under Article 2 paragraph 8 provides no specific obligation for Parties. Indeed, efforts in providing more normative contents to the interpretation can be observed through the 1992 Guidance Document,[336] 1999 Basel

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[333] Cf. International Law Commission, *Commentary on the Final Draft Articles on the Law of Treaties*, II YEARBOOK OF THE ILC 204 (1966); Daniel Bodansky, *Legally Binding versus Non-Legally Binding Instruments*, *in* TOWARDS A WORKABLE AND EFFECTIVE CLIMATE REGIME 155 (Scott Barrett et al. eds., CEPR Press Aug. 2015); Katharina Berner, *The Notion of 'Agreement,' in* SUBSEQUENT AGREEMENTS AND SUBSEQUENT PRACTICE IN DOMESTIC COURTS 241 (Katharina Berner ed., Springer 2017).
[334] *Fourth Revised Draft Convention*, *supra* note 246.
[335] Kummer also argued for such interpretation, stating that 'It is reasonable to conclude that the term "arrangements" in Article 11 denotes legal rules on the management of hazardous wastes which do not have the 1ega1 form of a treaty, but are of a higher order than national legislation, and impose legal obligations on states.' See KUMMER, *supra* note 18; Cf. Susanne Rublack, *Fighting Transboundary Waste Streams: Will the Basel Convention Help?*, 22 VERFASSUNG IN RECHT UND ÜBERSEE 364 (1989).
[336] *Guidance Document on ESM (UNEP/CHW.1/20/Rev.1)*, *supra* note 117.

Declaration,[337] 2010 ESM Framework,[338] and on practicalities through various guidelines on specific waste streams, providing Parties to the Convention with technicalities in implementing environmentally sound management of such wastes. Nevertheless, if interpretation of ESM requirement on Article 11 was only based on Article 2 paragraph 8 and supplemented by these documents, it would remain vague and would result in allowing other legal instruments to circumvent Basel's provision, however vague and lenient such legal instrument in providing restriction to transboundary movement of hazardous wastes.

This study argues that there are at least three reasonings why Article 11 indeed cannot circumvent the requirements of Ban Amendment. First, in order to give better contents to the interpretation of ESM requirements under the Convention, especially in setting the standard under Article 11, discussions should be based on teleological approach, that is, to rely on the purpose of the Convention. As previously mentioned, and elaborated in Chapter 2, Basel Convention intended to establish a global convention with three principal aims: minimization of hazardous wastes (waste minimization principle), environmentally sound management of hazardous wastes (ESM principle), and minimizing the transboundary movement of hazardous wastes (the least transboundary movement principle). Such limitation should not be interpreted only to protect developing countries, but also to minimize cost-externalization of hazardous waste management by requiring generating states to bear more responsibility, *inter alia,* through minimizing its generation of hazardous waste. The central element of these aims was to limit such movements, thus any separate agreement or arrangement with potentially more lenient standards of ESM may be in contravention to those aims of the Convention and should not be allowed. Adhering to teleological approach of ESM interpretation would allow us to view Basel Convention's aims as not to interpret ESM as to ensure 'business as usual' in a more

[337] *Draft Declaration on ESM (UNEP/CHW.5/23)*, *supra* note 145, at 29.
[338] *ESM Framework (UNEP/CHW.11/3/Add.1/Rev.1)*, *supra* note 116.

regulated regime, but to promote minimization of hazardous wastes as an element of environmentally sound management.[339]

Second consideration is that the reading of Article 11 of the Convention initially refers to Article 4 paragraph 5 which states that "A Party shall not permit hazardous wastes or other wastes to be exported to a non-Party or to be imported from a non-Party". Article 11, equipped with the 'no-less environmentally sound' principle, provides an exception to Article 4 paragraph 5's provision by establishing a requirement for any bilateral, multilateral, or regional agreements or arrangements between a Party and non-Party to be recognized as within the scope of Basel Convention. Observing the requirements, in the form of ESM standards, must also adhere not to the limited interpretation of Article 2 paragraph 8 but also the normative contents as previously elaborated. Article 11 cannot serve as an exception of the obligation under the new Article 4A of the Ban Amendment since Article 11 does not relate to the Article 4A.[340] Examining the negotiation process of the Ban Amendment, especially Article 4A also indicates that Article 4A was not intended to allow any exception through Article 11.

Third, under the Basel Convention original regime, Article 11 serves as the modifier of 'limited ban'; the prohibition of transboundary movement of hazardous wastes under the term limited ban only applies between Parties and non-Parties, and can still be allowed if there's an existence of an agreement/arrangement between the actors with the no-less environmentally sound standards as provisioned by Article 11. Thus, Article 11 would provide an important context in the case of the Ban Amendment; any possibility of exemption using Article 11 would render the aim of 'total ban' futile thus making it

[339] Kummer also argued for more contents to be established in interpreting ESM requirements under Article 11. While sharing the same sentiment, this research would argue that more contents should be given to the ESM not only as requirement of Article 11, but as the foundational principle of Basel Convention. Thus, by considering other documents giving normative contents to ESM, I argue that ESM, especially under Article 11, is stricter and any effort to circumvent Ban Amendment requirements under Article 11 should not be allowed. Cf. KUMMER, *supra* note 18, at 90–91.
[340] Kramer, *supra* note 332.

ineffective.

3.4.3 Wastes Destined for Recycling

Transboundary recycling and recovery have emerged as an alternative practice in addressing the increasingly limited supply of materials in a globalized industrialization since resource recovery and efficiency may lessen the impact of resource exploitation and extraction, and becoming more helpful in driving policies towards the implementation of sustainable development.[341] It is closely related to the increasing global demand for materials and the changing patterns of supply and demand, including in recycling and recovery of raw materials from hazardous wastes. On the other hand, such practices should be seen a 'temporary solution' towards the aim of minimizing the transboundary movement of hazardous wastes and finally minimizing the generation of such wastes. Because of the core nature of these wastes, which is 'hazardous', any transboundary movement of hazardous wastes destined for recycling and recovery operations would still produce hazardous by-products, and if not properly done in an environmentally sound manner pose a significant threat for human health and the environment. Another risk of such unsound movement is the practice of sham and dirty recycling, where hazardous wastes were either exported to recycling facilities without proper environmentally sound infrastructures and operations or purposely mislabeled to bypass custom law at the time, and foreign direct investment in hazardous waste disposal or recycling facilities using outdated equipment and techniques.[342]

The issue of hazardous wastes destined for recycling and recovery operation has also

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[341] Pierre Portas, *Recycling and Resource Recovery under the Basel Convention: Historical Analysis and Outlook*, *in* WASTE MANAGEMENT AND THE GREEN ECONOMY 246 (Katharina Kummer Peiry et al. eds., Edward Elgar Publishing 2016).
[342] Such incidents were detailed in a number of reports and study, e.g., CLAPP, *supra* note 74; Greenpeace International, *supra* note 303.

been one of the main issues since early deliberations of the Basel Convention in 1987.[343] At the outset, the differing issue was whether hazardous wastes destined for recycling and recovery should also be under the control system of the Convention, with some representatives citing its vast categories and difficulties in properly identify them.[344] The negotiation referred to the mechanism set under OECD Agreement [345] and EEC Directive[346] and initially adopted OECD approach on not making any distinction between wastes for final disposal and wastes for recycling and recovery operations.[347] This initial approach was based on the consideration that the definition of materials destined for recycling are more complex; it requires classification of product versus waste, waste versus non-waste, and when a waste ceased to be a waste.[348] But, the growing interest and increased participation of developing countries to the negotiation process influenced the approach by emphasizing that developing countries did not have adequate infrastructure to environmentally sound manage all types of hazardous wastes destined for both operations. Representatives from developing countries would also introduce the total ban proposal including hazardous wastes destined for recycling as their proposed 'solution' to the risks of such transfers.[349] The final compromise was that such wastes may be allowed for movements, if required as raw materials in importing states, as provisioned in Article 4

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[343] *Organizational Meeting Report (UNEP/WG.180/3)*, *supra* note 86, ¶¶ 45; 47–48.
[344] *Id.* ¶¶ 85–86; 91.
[345] Decision-Recommendation on Transfrontier Movements of Hazardous Wastes No. C(83)180/FINAL (OECD Council Feb. 1, 1984); Decision-Recommendation of the Council on Exports of Hazardous Wastes from the OECD area No. C(86)64/FINAL (OECD Council Jun. 5, 1986).
[346] Commission Directive 85/469/EEC of 22 July 1985 adapting to technical progress Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste, 85/469/EEC (1985).
[347] See comments on *First Draft Convention (UNEP/WG.180/2)*, *supra* note 244, ¶¶ 5 & 12.
[348] See Portas, *supra* note 341; One such material where classification effort is critical can be observed on the ongoing debates regarding waste of electronic and electrical equipment (WEEE). It requires a thorough and detailed process to distinguish between used products and wastes, when EEE becomes a waste and at what stage it ceases to be a wastes. See Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Wastes and for Their Disposal, No. UNEP/CHW.6/21 (Aug. 23, 2002).
[349] Such shift would alter the prior draft convention text, now trying to accommodate developing countries' concerns by drafting wastes destined for 'final disposal' and 'recovery operation'. This distinction did not establish distinction between recyclable and non-recyclable wastes. See *Fourth Revised Draft Convention*, *supra* note 246; KUMMER, *supra* note 18, at 49.

paragraph 9(b): "Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes only be allowed if … The wastes in question are required as a raw material for recycling or recovery industries in the State of import." Yet, developing countries still had concern regarding this provision related to previously illustrated reasons, such as its inadequacy in protecting countries without proper disposal and recycling management and infrastructure.

Further examination of the developing countries' reluctance is warranted to understand that why, despite the economic benefit and potentially more environmentally sound practices towards sustainability, such concerns still exist. Observing Article 4 paragraph 9(b), it provides requirements "required as raw materials" for wastes destined for recycling or recovery operations after taking appropriate measures, which might refer to prior Article 4 paragraph 8 of the obligation to ensure environmentally sound management.[350] Such requirement would still depend not only on Annex I and Annex III, but also on national definition of hazardous wastes and later adopted Annex VIII and IX on wastes and non-wastes. This means that it poses risks from unharmonized and inconsistent definitions, interpretations, classification and characterizations of wastes considered as having low hazardousness so it would be profitable to be recycled.

While developing countries have the rights to prohibit import for wastes considered as hazardous by their national definition, it nevertheless is a complex task to achieve if implemented by each case of transfer, further burdening the already inadequate infrastructure in developing countries. The vague standards on recycling and recovery may also led to the many incidents reported during COP-2 where "wastes hazardous waste (that was) supposedly exported for recycling was, in fact, intended for final disposal".[351] Thus,

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[350] Article 4(8) states that "Each Party shall require that hazardous wastes or other wastes, to be exported, are managed in an environmentally sound manner in the State of import or elsewhere." *Basel Convention*.
[351] Representatives from developing countries reported these incidents on several occasions, inter alia, during COP-2. See *COP-2 Report (UNEP/CHW.2/30)*, *supra* note 142, ¶ 22.

any discussion on banning the transboundary movements of hazardous wastes from developed countries to developing countries have to include wastes destined for recycling and recovery operations since it would make better sense in achieving the aim of protecting developing countries and requiring developed countries to be more responsible with their wastes.[352]

It was from this argument that the North-South total ban proposal to include wastes destined for recycling and recovery operations was negotiated and finally concluded through Decision BC-III/1. The Ban Amendment prohibits all exports of hazardous wastes from countries in Annex VII of the Basel Convention to other countries not listed in this Annex, including hazardous wastes destined for recycling and recovery operation. As indicated during the contentious debates, a number of Parties to the Convention were not in a position to ratify the Ban Amendment. In regard to the issue of recycling and recovery, the reluctance was centered around some arguments, *inter alia*,[353] the legislative and regulation difficulties faced by some countries to implement the Ban Amendment's provisions, the lack of domestic infrastructure which necessitates a country to export those waste to neighboring countries with adequate facilities to be treated in an environmentally sound manner, and the reliance of raw materials from hazardous waste imports of some countries. Furthermore, there are international collaborations between Annex VII and non-Annex VII countries for transfer of technology and investment to improve environmentally sound management of hazardous waste. The reluctance shared by several developed countries and countries-in-transition contributed to the slow ratification process of Ban Amendment.

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[352] The total ban proposal was also supported by some representatives from developed countries, notably Scandinavian countries such as Sweden and Norway. See Comments on Decisions BC-I/22 on *COP-1 Report (UNEP/CHW.1/24)*, *supra* note 56; Then Executive Director of UNEP, Ms. E. Dowdeswell, also reiterated that negotiation on the total ban proposal should also include discussion on hazardous wastes destined for recycling and recovery operations. See *COP-2 Report (UNEP/CHW.2/30)*, *supra* note 142, ¶ 4.
[353] *CLI Explanatory Note*, *supra* note 158.

During the period between the adoption of BC-III/1 and its entry into force, instead of a global trend in decreasing of hazardous waste movements, the world witnessed an increase in such movements, especially for wastes destined for recycling and recovery operations.[354] Such increase would be a positive development if the technologies and tools to support environmentally sound management of hazardous wastes destined for recycling and recovery are well developed and adequately available. Yet, it happened with neither of them. Portas captured this phenomenon clearly when arguing that:[355]

> *The market is driving recyclables across borders faster than the development of policies, safeguards and legislation. In turn, such a dichotomy is the source of many of the difficulties encountered while implementing the Basel Convention. Economic actors have set the scene regarding the shape of the international trade in recyclables: policy and legislation lag behind and, internationally, a well-organized coherence of action still remains to be put in place. There is currently no level playing field at the global level.*

Consequently, an increase in numbers of transboundary movement of hazardous wastes would present a higher risk to illegal transfer of such wastes which would be in contravention with Article 9 paragraph 1 of the Basel Convention. Between 2009-2020, Basel Convention Secretariat received eight separate reports from Parties of the Convention of illegal transfers, ranging from medical wastes to electronic wastes.[356] Reports from WasteForce indicate that the practices were more prevalent; between January 2018 and November 2020 alone they found 136 cases of either illegal transfer or illegal dumping of wastes, with more that 70% of those cases comprise of hazardous waste, plastic waste, electronic waste, household waste, medical waste, and shipbreaking waste.[357] The

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[354] See e.g., ZOÏ ENVIRONMENT NETWORK & GRID-ARENDAL, VITAL WASTE GRAPHICS 3 (Secretariat of the Basel Convention 2012); *Waste Without Frontiers II (UNEP/SBC/2010/22)*, *supra* note 70; Nicky Gregson & Mike Crang, *From Waste to Resource: The Trade in Wastes and Global Recycling Economies*, 40 ANNUAL REVIEW OF ENVIRONMENT AND RESOURCES 151 (Annual Reviews Nov. 2015); Josh Lepawsky, *The Changing Geography of Global Trade in Electronic Discards: Time to Rethink the e-Waste Problem*, 181 THE GEOGRAPHICAL JOURNAL 147 (2015).

[355] Portas, *supra* note 341, at 63.

[356] *Cases of Illegal Traffic*, BASEL CONVENTION, http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/CasesofIllegalTraffic/tabid/3424/Default.aspx (last visited Jan. 2, 2022).

[357] WasteForce was a consortium project led by The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and includes UNEP and Basel Convention Regional Centre in several regions. See WasteForce, *WasteForce Crime Alert Overview*, *supra* note 2; WasteForce, *WasteForce Crime Alert #5*, *supra* note 2; WasteForce, *WasteForce Crime Alert #6*, *supra* note 2; WasteForce,

European Union, North America (the US), Japan, and Australia have been reported as the main exporters and the main destination countries being Africa and Asia.[358] Indeed, this does not exhibit that "the majority of hazardous wastes are transported cross-border for 'dumping' in less developed countries", or that they were destined for dirty/sham/illegal recycling, as argued by several commentators in favor of a more open hazardous waste trade destined for recycling.[359] However, it still provides relevance to the argument of the North-South total ban through Ban Amendment: 1) in case of "protecting developing countries", it provides a comprehensive regime including a legal framework on a global scale, instead of relying on fragmented regional instruments; 2) such protection would be based on a more standardized requirements (Annex VII-non Annex VII countries) and may still open to discussions (following the recent discussions on Ban Amendment-ESM as requirements for Annex VII membership; 3) Ban Amendment promotes the initial aim of the Convention to minimize hazardous waste generation and transboundary movement instead of cost-externalization. It is worth to mention that even after 30 years of Basel Convention, the configuration of North-South countries has not changed much (except China in the recent decade). This fact in itself provides doubts whether relying *only on capacity building* for developing countries would make Basel Convention more effective, bearing in mind the limited funding of Basel Convention and its Secretariat to implement such measures.[360]

WasteForce Crime Alert #7, *supra* note 2; WasteForce, WasteForce Crime Alert #8: September - November 2020 (Nov. 30, 2020).

[358] UNEP is also refocusing their attention on this phenomenon. Several reports have emerged and confirmed this tendency. See e.g., UNEP, The State of Knowledge of Crimes that have Serious Impacts on the Environment (2018); THE RISE OF ENVIRONMENTAL CRIME, *supra* note 3; RUCEVSKA ET AL., *supra* note 3.

[359] Yang argue that the Ban Amendment is ineffective in regulating the North-South trade since EU has already implemented the values of Ban Amendment and the US is not a non-party. He further argues the Ban Amendment does not help solve the problem of developing states' inability to 'fend off' illegal waste imports. See Shiming Yang, *Trade for the Environment: Transboundary Hazardous Waste Movements After the Basel Convention*, 37 REVIEW OF POLICY RESEARCH 713 (2020).

[360] The fact that Basel Convention and especially its Secretariat lack of proper funding to effectively implement its provision is largely recognized and even became an agenda on several COPs. See Nancy Isarin, *Overview of the Challenges and Needs of Parties and Various Stakeholders in Preventing and Combating Illegal Traffic in Line with the Requirements of the Basel Convention: Gap Analysis* 33 (Apr. 2014).

3.4.4 The Issue of Annex VII

The Ban Amendment particularly relates to two main issues: its applicability to the recycling and recovery operations and the 'membership' of Annex VII which states "Parties and other States which are members of OECD, EC, Liechtenstein", considered by the consensus of COPs as 'developed' thus are required to prohibit such transfer. Its adoption was particularly controversial because it refers to international organizations membership as criterion rather than establishing an independent standard under the Convention thus equating the term "developed countries" with OECD, EC, and Lichtenstein.[361] The term 'developed countries' has been employed synonymously with 'industrialized countries' during early deliberation of the Ban Amendment, such as during the negotiation of the draft convention,[362] and in the paragraph 7 of the preamble of the Convention's text, acknowledging the emergence of the growing interests in prohibiting such transfer to developing countries from *developed countries*.[363] The term was subsequently changed into "industrialized countries" in BC-I/22, adopted by COP-1, which confirms the call for prohibition by requesting "*the industrialized countries* to prohibit transboundary movements of hazardous wastes and other wastes for disposal to developing countries…".[364] The interchangeably was not crucial; it would still refer to the same certain groups of countries, since the progress of adopting a binding decision was yet to be established.

BC-I/22 brought awareness to the Parties of the Convention that the North-South

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[361] Such approach was not uncommon; Kyoto Protocol, for example, also used similar approach for countries required to reduce its greenhouse emission by referring to an Annex based on OECD membership. See Annex B of *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 2303 UNTS 162 (Nov. 1997).
[362] See e.g., *Second Session Report (UNEP/WG.186/3)*, *supra* note 91, at 186; See also *Note from the Executive Director of UNEP*, No. UNEP/WG.186/2 (May 1988) stating that "One solution to this problem is giving the exporting (usually developed) country the responsibility...."
[363] Preambular paragraph 7 of *Basel Convention*.
[364] BC-I/22, annexed on *COP-1 Report (UNEP/CHW.1/24)*, *supra* note 56.

total ban was taking a more realistic shape. The debates had shifted from whether a ban should be adopted under the Convention to how the ban should be formulated and operationalized. Developments in other international instruments, such as Bamako, Lomé IV, and Agenda 21, also exhibited a growing interest for such prohibition, indicating an emergence of an international norm of a "North-South" total ban and seemed to contribute in building the consensus among the Parties. BC-II/12 also "recalls" G-77's proposal during COP-1 "for the total ban on all exports of hazardous wastes from OECD countries to non-OECD countries" while also "recognizing that transboundary movements of hazardous wastes from OECD to non-OECD States run a high risk of not constituting an environmentally sound management of hazardous wastes as required by the Basel Convention". The decision mandates that:

> *[1] Decides to prohibit immediately all transboundary movements of hazardous wastes which are destined for final disposal from OECD to non-OECD States;*
>
> *[2] Decides also to phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes which are destined for recycling or recovery operations from OECD to non-OECD States;*

Discussion on the issue of Annex VII during COP-3 and COP-4 focuses on the expansion of Annex VII.[365] A group of countries which was adamant that any expansion of Annex VII would compromise of Ban Amendment, grounding their argument that the criterion of 'developed countries' established by Annex VII was already sufficient to identify countries having the proper technical, legal, and institutional capacities to ensure environmentally sound management of hazardous wastes.[366] This argument was opposed by the second view, voiced by OECD countries and particularly countries-in-transition such as Israel, Monaco, Slovenia and Brazil, which aimed for their inclusion into the Annex to tap into the waste trade.[367] The third group viewed that Annex VII should be open to expanding the list, but through a more established criteria which would be better

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[365] See *COP-3 Report (UNEP/CHW.3/34)*, *supra* note 277, ¶ 51. See also the separate statements by Russia, Canada, and Australia on Annex I, II, and III to the document.
[366] Kummer, *supra* note 261, at 229.
[367] *COP-4 Report (UNEP/CHW.4/35)*, *supra* note 143; CLAPP, *supra* note 74, at 97.

serve the aim of Ban Amendment.

A rather controversial issue related to Annex VII was the reference to international entities' membership outside the Basel Convention as criterion rather than establishing an independent standard under the Convention, since it would constrain the Convention from having control of the membership, which potentially may undermine the aim of the Ban Amendment. Since the adoption of BC-III/1, OECD membership has grown by 13 members.[368] On the other hand, G-77 and environmental organizations such as Basel Action Network (BAN) and Greenpeace, argued that devising a mechanism to make membership of Annex VII open to discussion would undermine the purpose of the Ban Amendment itself, and thus resisted any attempt to changes of Annex VII. [369] At the same time, the permanence of Annex VII would assume stagnant capabilities of countries in managing hazardous wastes. However, the permanence of Annex VII may also offer protection for countries without capabilities to rapidly cope, or countries with very limited capabilities at all. This permanence might also promote environmentally sound management as the foundational aim of the Basel Convention and how it was intended to be achieved under the Convention; that is to observe and focus on minimizing the hazardous waste generation and transboundary movement as a content of the ESM principle.

The debates on Annex VII would be suspended by the adoption of Decision BC-IV/8 regarding Annex VII memberships, mandating "to leave Annex VII unchanged until the amendment contained in decision III/1 enters into force" while also mandating TWG "to provide Parties with a detailed and documented analysis that would highlight issues related to Annex VII." The study of Annex VII was concluded during COP-7 with the submission

[368] As of 16 December 2021, OECD memberships currently has 38 countries, compared to 22 members prior to the adoption of BC-III/1. See *List of OECD Member Countries - Ratification of the Convention on the OECD*, https://www.oecd.org/about/document/ratification-oecd-convention.htm (last visited Dec. 16, 2021).
[369] See *COP-4 Report (UNEP/CHW.4/35)*, *supra* note 143, ¶¶ 45–52.

of UNEP/CHW.7/12 titled "Analysis of issues related to Annex VII" from Open-ended Working Group (OEWG) and adopted through decision VII/24.[370]Despite reaching no definite conclusion regarding Annex VII, two interesting points did emerge from the final report. First, there was a shift of context on Annex VII from the North-South as the background on establishing Annex VII to be on ESM as one of the important aspects of establishing Annex VII. Despite only briefly elaborated, it offers glimpse of a changing attitude towards future discussions on membership of Annex VII, from membership based on permanence of economic capabilities (especially with the membership of OECD and EC criterion) to what seems to be membership based on capabilities to ensure ESM. Hypothetically, even if this shift would be accepted, it would still change the nature of Basel Convention, since it would introduce a new element of prohibition obligation for certain group of states rather than based on specific bilateral agreement between an export country and an import country. Second, such development would further establish ESM as the foundational principle of Basel Convention. With the aim of Ban Amendment to not only protect countries without adequate capacities, but also to promote minimization of waste generation and transboundary movement, it would strengthen the argument that the ESM principle was strengthened.

3.5 Evolving Operationalization of the Basel Convention

This study proposes that regime evolution happens when there is a significant alterations in its rules and operationalization without changing the original aim of the regime. Such alterations have to be significant leading to significant changes in the patterned behavior of states under the regime; a mere change in the reporting procedure, for example, cannot constitute an evolution under this conception. Changes in the regime's operationalization

[370] See BC-VII/24, annexed on *COP-7 Report (UNEP/CHW.7/33)*, *supra* note 154; The result of OEWG deliberations can be found on *Analysis of Issues Related to Annex VII*, No. UNEP/CHW.7/12 (Aug. 2004).

is a modification of activities required to transform an agreement or arrangement into a functioning social practice, that is, the schemes or mechanism of the regime. This section elaborates such changes in the operationalization of the Basel Convention regime as the implications of the entry into force of Ban Amendment.

Now that its provisions are in effect, it bears the question on how the Ban Amendment affects the Basel Convention's operationalization, especially if we are to link such development to ESM as its foundational principle. Indeed, considerable studies have been done to explore the various implications of entry into force of Ban Amendment, such as its implication on trade and its relation to WTO rules,[371] policy implication in implementation of the Convention,[372] and its legal implications, but none of them touched upon how Ban Amendment affect the interpretation and operationalization of ESM principle as the original aim of Basel Convention.[373]Many of the literatures come from international legal studies while only a few international relations studies have examined the Basel Convention and the Ban Amendment in particular. For instance, Wirth argues that in the case of Parties to both Ban Amendment and GATT/WTO, Ban Amendment "would operate as a consensual abrogation of GATT /WTO rights" since it would be an obligation owed by Annex VII countries and non-Annex VII to prohibit hazardous waste transfer.[374] Krueger points out that for the large group of developing countries having little to none recycling industries but often became a victim of illegal transfer, illegal dumping, sham and dirty recycling, Ban Amendment brings positive protection against such practices. He also points out that Ban Amendment does not affect the majority of waste destined for recycling, since many of them are not considered as hazardous thus not a subject of the ban.[375] Hoffman and Wilson argue that despite Ban Amendment having

[371] Cf. Wirth, *supra* note 330; Krueger, *supra* note 13.
[372] Hoffmann & Wilson, *supra* note 62; Ajibo, *supra* note 19.
[373] Cf. Sundram, *supra* note 62; Kummer, *supra* note 261; BAN & IPEN, *The Entry into Force of the Basel Ban Amendment: A Guide to Implications and Next Steps* (Nov. 2019).
[374] Wirth, *supra* note 330, at 243.
[375] Krueger, *supra* note 129, at 15.

slight debilitating effect to the lead battery recycling in The Philippines in short-term, a long-term transition policy is indeed implementable.[376] Kummer illustrates probable future agenda after the entry into force of Ban Amendment, suggesting that development of criteria of Annex VII is crucial and will take place immediately,[377] while BAN/IPEN argue that ratification of the Ban Amendment from non-Annex VII countries signifies an import prohibition thus an Annex VII country regardless of whether they have ratified the Ban Amendment or not, cannot export hazardous wastes to a non-Annex VII Party (developing or transition country) that has ratified the Ban Amendment as their ratification automatically reflects their national import prohibition.[378]

Article 4A establishes a total ban mechanism under the regulatory scheme of the Basel Convention, prohibiting any transboundary movement of hazardous wastes from Annex VII countries to non-Annex VII countries. This new mechanism does not replace the original restriction mechanism, but rather complement the regulatory scheme to include restriction based on PIC mechanism and total ban mechanism based on Annex VII membership. Prior to Ban Amendment, any transboundary movement of hazardous wastes and other wastes is only allowed after adhering to certain criteria set out by the Convention (Article 4 paragraph 9) and must be carried out under PIC mechanism. The original restriction scheme only prohibits any transboundary movement: 1) to importing states using their right to prohibit import; 2) to Antarctica; and 3) between Parties and non-Parties to the Convention with an exception if both countries have an agreement incorporating the no-less environmentally sound principle in accordance with Article 11. Any transboundary movement of hazardous waste can be agreed bilaterally between generator in State of Export and disposer in State of Import, and in certain cases to include State of Transit. The State of export shall notify, or shall require the generator or exporter to notify the

[376] Hoffmann & Wilson, *supra* note 62, at 120–22.
[377] Kummer, *supra* note 261, at 231.
[378] BAN & IPEN, *supra* note 373, at 4.

competent authority of the State of export, the State of Import and in certain cases to State of Transit, of any proposed transboundary movement of hazardous wastes or other wastes. Unless it has received a written consent, State of Export shall not allow for the proposed transboundary movement to proceed. The position of non-Party transit states, on the other hand, is less clear since the PIC mechanism requires notification of prospective non-Party transit state, but does not address the requirement of consent from that state.[379] By contrast, it is now prohibited to transfer hazardous waste from Annex VII countries to non-Annex VII countries, even if the waste in question fulfills the criteria allowed by the Convention (destined for final disposal or recycling and recovery operations). Accordingly, the total ban mechanism makes the PIC mechanism inapplicable to the export of hazardous wastes from Annex VII countries destined for both final disposal (paragraph 1) and recycling (paragraph 2) unless the waste is not characterized as hazardous under the Convention.

In essence, the Ban Amendment changed the operation of the Basel Convention regime in three aspects. First, it changes the rules for Annex VII countries who have ratified the Ban Amendment, from previously having right to export to become an obligation to prohibit any transboundary movement of hazardous waste to non-Annex VII countries. Ratification of Ban amendment by Annex VII countries will not change their entitlement under the Convention to import hazardous wastes but will impose a new obligation upon them. As such, how actors conduct themselves within the regulatory scheme have changed, especially for competent authorities in each member states.

Second, it changed the operationalization by establishing a North-South total ban mechanism, in which three clusters of transboundary movement of hazardous wastes emerge: 1) between Annex VII countries; 2) between non-Annex VII countries; and 3) from non-Annex VII countries to Annex VII countries. This modification of the Basel

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[379] Jonathan Krueger, *Prior Informed Consent and the Basel Convention: The Hazards of What Isn't Known*, 7 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 115 (Jun. 1998).

Convention's operationalization might have distinctly shaped the practices and behavior of states under the Convention, both for Annex VII and non-Annex VII countries. For example, Annex VII countries who have ratified the Ban Amendment will now either have to find other Annex VII Parties to send their hazardous waste or to dispose those waste in their own country.

Third, the entry into force of the Ban Amendment has also legally activated Convention's Annex VII and consequently the new approach to transboundary movement of hazardous waste: that is from a bilateral and individualized relationship between a particular export state and a particular import state with regard to particular waste, to a 'catch-all' approach based on the country groupings based on Annex VII countries and non-Annex II countries. Whether and to what extent these changes brought about by the Ban Amendment affect the interpretation and operationalization of ESM principle as the original aim of Basel Convention will now be examined below.

Fourth, with the prevention principle as an additional context in interpreting ESM, change in rule and the mechanisms within which transboundary movement of hazardous waste is allowed, the operationalization of Article 11 is becoming stricter which might affect any hazardous wastes trade between party and non-party to the Basel Convention.

3.5.1 Prevention principle as an additional context of ESM

An analysis on the changes in the Basel Convention's operationalization after the entry into force of the Ban Amendment cannot be separated from the emergence of the North-South total ban as an international norm. As previously elaborated, the North-South total ban contributes to shape the consensus on the Ban Amendment. Modifications on the activities under the Convention should also be in conformity with this norm since it also serves as a convergence of expectation on the transboundary movement of hazardous waste. The norm emerges as the international community's expectation stemming from a shared

understanding on what should be practiced regarding the transboundary movement of hazardous waste issue. Thus, it is an international norm having as a character of standard to evaluate what can be considered as good practices. In the case of transboundary movement of hazardous waste, it is the norm of environmentally sound management that serves as such a standard. As demonstrated above, the norm of environmentally sound management under the Basel Convention regime is its foundational principle, constituting as the original aim of the Convention. But it does not mean that the foundational principle cannot be strengthened, and as this thesis argues, the evolution of the Basel Convention through its operationalization has indeed strengthened the ESM principle.

There are several implications of the entry into force of the Ban Amendment through its preambular text and prohibition of all transboundary movement of hazardous wastes, which will be examined on this section. At the outset, the operationalization of the Basel Convention has evolved as an implications of the Ban Amendment, but simultaneously it is also important to examine the peculiarity of preambular paragraph 7bis, in particular how it modifies the structures of rights and rule of the Basel Convention. Preambular paragraph 7bis reads:

> *Recognizing that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting an environmentally sound management of hazardous wastes as required by this Convention.*

Preambular paragraph 7bis relates to the obligation of Article 4 paragraph 2(a) of the Basel Convention by assuming that developing countries cannot ensure adequate disposal facilities, capabilities and infrastructures to receive hazardous waste import ("… especially to developing countries,…), thus any transboundary movement is susceptible to environmentally unsound management of hazardous waste ("…have a high risk of not constituting an environmentally sound management…"). While the original regime assumes that despite the limited capabilities of developing countries (preambular paragraph 20), transboundary movement of hazardous waste may still occur, the new

preambular paragraph 7bis assumes a high risk might arise from such movement.[380]

3.5.1.1 Risk as a concept

The discretion is undoubtedly connected with the introduction of 'high risk' concept by 7bis. Risk, as a concept, can be interpreted through either objective or subjective conception, where objective interpretation refers to "the frequency of a certain result may occur" and subjective interpretation refers to "the confidence level to the probability of a certain result occurring."[381] Both conceptions address the same term of 'certain result', and closely related to the concept of 'harm' and 'damage', stemming from the Principle 21 of the Stockholm Conference, which provides:

> *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 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.*

Principle 21 is still the foundation of international environmental law; its overarching language could only be improved by the Principle 2 of Rio Declaration by adding only two words: 'their own environmental *and developmental* policies' to include the emerging concept during UNCED.[382] The Principle 21/Principle 2 consists of two elements: the sovereignty principle and the responsibility not to cause environmental damage or the 'no-harm' rule. It ensures the of sovereign rights of states of over their territory, which entails the right of state to exploit resources within and to control activities under their jurisdiction and also the obligation to not cause transboundary environmental damages.[383] This

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[380] Indeed, the limit is barely adequate for some developing countries. Cf. Ajibo, *supra* note 19; Zada Lipman, *Transboundary Movement of Hazardous Waste: Environmental Justice Issues for Developing Countries*, 1999 ACTA JURIDICA 266 (1999).

[381] See Albert C. Lin, *The Unifying Role of Harm in Environmental Law*, 2006 WIS. L. REV. 897 (2006); Matthew D. Adler, *Risk, Death and Harm: The Normative Foundations of Risk Regulation*, 87 MINN. L. REV. 1293 (2002); Claire Finkelstein, *Is Risk a Harm?*, 151 U. PA. L. REV. 963 (2002–2003); JULIO BARBOZA, THE ENVIRONMENT, RISK AND LIABILITY IN INTERNATIONAL LAW (Martinus Nijhoff Publishers 2011).

[382] *Rio Declaration (UN Doc. A/CONF.151/26 (Vol. I))*.

[383] See Rudiger Wolfrum, *Purposes and Principles of International Environmental Law*, 33 GERMAN Y.B. INT'L L. 308 (1990); Virginie Barral, *National Sovereignty over Natural Resources: Environmental*

doctrine of state sovereignty over natural resources is considered as an essential and inherent element of state sovereignty, thus it is "inherently" and externally limited since it cannot give more liberties and rights than sovereignty itself. [384] In the case of Basel Convention, the doctrine provides more guidance for the pollution source transfer rather than on the limitation of 'freedom to pollute' doctrine, insofar as to reaffirm state's sovereign rights to give or refuse any potential transboundary movement of hazardous wastes as a potential source of pollution.[385] Consent of state of import and transit thus becomes the basis for which any transboundary movement may be allowed based on its relevant national legislation, as provisioned under Article 4(1) of the Convention, which ensures their rights to prohibit such movement.

Furthermore, it is the latter element of The Principle 21/Principle 2 from which the concept of harm and damage and subsequently risk emerged. [386] Applying these interpretations to paragraph 7bis, the adjective "high" in the 'high risk' might constitute that the Convention now assumes if transboundary movement of hazardous wastes to developing countries are more prone to unsound practices according to ESM standards, having a significant risk of environmental harm, and its magnitude might be significant due to the low capabilities of developing countries in managing hazardous waste, in itself pose greater risk than other types of waste (excluding nuclear waste).

The implications are twofold: first, it applies the risk management approach, in opposite to intrinsic hazard approach (see Chapter 1), to any transboundary movements of

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Challenges and Sustainable Development, *in* RESEARCH HANDBOOK ON INTERNATIONAL LAW AND NATURAL RESOURCES 3 (Elisa Morgera & Kati Kulovesi eds., Edward Elgar Publishing Nov. 2016).

[384] Since the principle of state sovereignty itself is widely argued as not absolute, but with limitation. It is not the aim of this study to further elaborate on the issue. See Franz Xaver Perrez, *The Relationship Between "Permanent Sovereignty" and the Obligation Not to Cause Transboundary Environmental Damage*, 26 ENVIRONMENTAL LAW 1187 (1996); Karol N. Gess, *Permanent Sovereignty over Natural Resources*, 13 INT'L & COMP. L.Q. 398 (1964); Chris Armstrong, *Against 'Permanent Sovereignty' over Natural Resources*, 14 POLITICS, PHILOSOPHY & ECONOMICS 129 (May 2015).

[385] KUMMER, *supra* note 18, at 20–21.

[386] This study will not further pursue the discussion on the Principle 21/Principle 2. For a more elaboration, see e.g., SANDS ET AL., *supra* note 124, at 201–11.

hazardous waste, corroborating the obligations in Article 4 paragraph 2(e) and 2(g) stated in expression "reason to believe", confirming that the Parties should observed the prevention principle to consider the conditions under which imported hazardous wastes were handled in developing countries. This means that the entry into force of Ban Amendment now adds an element to the interpretation of "reason to believe", an expression often interpreted differently, by applying the concept of 'high risk' to any transboundary movement of hazardous waste to developing countries. It establishes that the Convention now assumes that transboundary movement of hazardous wastes and other wastes to developing countries are more prone to unsound practices according to ESM standards under the Convention, since hazardous waste management in developing countries have 'limited capabilities' in in observing ESM as required by the Convention.[387]

Second, with the introduction of 'high risk' concept, prevention principle is now closely attached as an element to the interpretation of ESM. Prevention principle recognizes that any proposed transboundary movement of hazardous waste should not allowed to proceed if it meets three criteria: there is a risk of environmental harm, that is foreseeable, and of a certain magnitude. Consequently, any obligation relating to transboundary movement of hazardous waste to developing countries is now considered as having risk to both human health and the environment, it is foreseeable, its magnitude can be serious. While the risk management approach does not necessarily oblige Parties to thoroughly confirm the conditions in importing states,[388] attaching prevention principle would now impose a stricter interpretation of observing ESM in regard to transboundary movement of hazardous waste to developing countries.

[387] See Preambular paragraph 20 *Basel Convention*.
[388] See Schneider, *supra* note 19.

3.5.1.2 The substance of the Prevention Principle

The preventative principle is a primarily environmental concept and seeks to anticipate risks of environmental damage.[389] The *Iron Rhine* arbitral tribunal recognized this principle when states that "today, international environmental law, a growing emphasis is being put on the duty of prevention" which "applies not only in autonomous activities but also in activities undertaken in implementation of specific treaties between the Parties."[390] This approach was confirmed in the *Pulp Mills* case, stating that "the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory."[391] The prevention principle stemmed from the from the duty of States to avoid transboundary environmental harm, and requires states to prevent damage to the environment, and to reduce, limit or control activities which may cause or risk such damage.[392] However, the principle of prevention should be distinguished from the duty of States to avoid transboundary environmental harm, since there is a fundamental distinction between them which lies in their objectives.[393] The latter arise from respect for the principle of state sovereignty, while the prevention principle seeks "to protect the environment as an end in itself".[394]

There are three definitional dimensions of prevention principle: its rationale, content and geographical scope, characterizing the principle as a positive anticipatory obligation to protect and preserve the environment.[395] The first dimension of prevention is an anticipatory principle in order to avoid or at least to limit risks of foreseeable

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[389] See generally NICOLAS DE SADELEER, ENVIRONMENTAL PRINCIPLES: FROM POLITICAL SLOGANS TO LEGAL RULES (Oxford University Press 2nd ed. ed. 2020); SANDS ET AL., *supra* note 124, at 211–13; LESLIE-ANNE DUVIC-PAOLI, THE PREVENTION PRINCIPLE IN INTERNATIONAL ENVIRONMENTAL LAW (Cambridge University Press 1st ed. May 2018).
[390] Iron Rhine Arbitration, Belgium v Netherlands, Award, ICGJ 373 (PCA 2005), 24th May 2005, Permanent Court of Arbitration, paragraphs 59 and 222.
[391] Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, 2010 I.C.J. Reports 14, ¶ 101.
[392] SANDS ET AL., *supra* note 124, at 211.
[393] Arie Trouwborst, *Prevention, Precaution, Logic and Law - The Relationship between the Precautionary Principle and the Preventative Principle in International Law and Associated Questions The Many Facets of Precautionary Logic*, 2 ERASMUS L. REV. 105 (2009).
[394] *Id.* at 112.
[395] DUVIC-PAOLI, *supra* note 389, at 177.

environmental harm as its rationale. The second dimension defines the prevention principle as an obligation of due diligence that requires States to act proactively to avoid environmental harm as its contents which stems from the anticipatory rationale which dictates state to a more proactive approach to risk. [396] Third, the geographical scope of prevention principle which underlines its concern for protection of the environment as a whole, demonstrating that prevention aims to protect the environment regardless of the location of the harm. [397] This study seeks to explore the anticipatory dimension which results in the due diligence obligation to prevent, directly related to the Ban Amendment.

Duvic-Paoli argues that prevention principle is a risk anticipatory principle, with the 'risk' element defined as the 'material-scope' and the 'anticipatory' as the 'temporal-scope'. The 'risk' element is consisted of risk of environmental harm, that is foreseeable, and of a certain magnitude.[398] First, defining environmental harm is a herculean task since both elements of the notion, 'environment' and 'harm', are difficult to define. The environment is defined in the ILC Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities (Draft Principles on the Allocation of Loss) as including "natural resources, both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors, and the characteristic aspects of the landscape."[399] The term 'harm' is different, although often used interchangeably, with the term 'damage'. ILC defines 'harm' as the threat to the legally protected interests of other States and 'damage' as 'significant damage caused to persons, property or the environment'. Nevertheless, in practice, the distinction is not always easily differentiated.[400]

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[396] *Id.* at 199.
[397] *Id.* at 234.
[398] *Id.* at 179.
[399] ILC, *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities (with Commentaries)*, No. UN Doc. A/63/10 (2006), Principle 2(b).
[400] DUVIC-PAOLI, *supra* note 389, at 181.

The principle of prevention is only applicable when the risk of environmental harm meets certain criteria.[401] The ILC Draft Principles on the Allocation of Loss provides guidance in determining the criteria, stating that the prevention principle applies to activities with a "risk of causing significant transboundary harm" and further defines as "activities that present a high probability of causing significant transboundary harm or a low probability of causing disastrous transboundary harm."[402] The significance of the risk can be examined based on two elements: 1) the probability or the foreseeability of the risk to happen; and 2) the magnitude of harm which may be caused.[403] The first element focuses on known consequences and the second element provides the criteria where prevention principle only applies when harm is foreseen to be 'significant'. The ILC Draft Article on the Prevention on Transboundary Harm from Hazardous Activities Commentaries provides insights on what can be considered as 'significant', that is, the foreseen harm is considered as more than light harm but not to the level of serious or substantial.[404]

The 'anticipatory' element as the temporal scope of the prevention principle, commonly understood as pre-empting of an event. Prevention principle is applicable in the timeframe context of imminence, emergency, and response.[405] Imminence is the time when the likelihood of a harm occurring can be assessed, so it focuses more on the 'likelihood' of a harm instead of the temporality. This approach was confirmed by European Directive 2004/35/CE, which considered that 'imminent' should be interpreted as when there is a "sufficient likelihood of that environmental damage will occur in the near future."[406]

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[401] *Id.*
[402] ILC, *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities*, No. Supplement No. 10 (A/56/10), chp.IV.E.1 (Nov. 2001), Commentary to Article 1, para 16, at 151, Article 2(a) and Commentary to Article 2, para 3, at 152.
[403] *Id.*; DUVIC-PAOLI, *supra* note 389, at 182.
[404] ILC, *supra* note 402, Commentary to Article 2, para 4, at 152.
[405] MAKANE MOÏSE MBENGUE, ESSAI SUR UNE THEORIE DU RISQUE EN DROIT INTERNATIONAL PUBLIC. L'ANTICIPATION DU RISQUE ENVIRONNEMENTAL ET SANITAIRE 29–116 (Pedone 2009).
[406] Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, 32004L0035 (2004), Article 2(9). See also Gabčíkovo-Nagymaros in which the Court opinioned that "a 'peril' appearing in the long-term might be held to be 'imminent' as soon as it is established, at the relevant point in time, that the realization of that peril, however far off it might be, is not thereby any less certain and inevitable'. Gabčíkovo-

Emergency relates to the 'urgency' of preventive actions to be taken in circumstances where the risk cannot be predicted over a longer time period or when preventive actions were not exercised or failed to fulfill its aim.[407] The ILC Prevention Articles states that "suddenness does not denote that the situation needs to be wholly unexpected" thus states are under an obligation to anticipate emergencies.[408] Response is a preventive action after the occurrence of harm and focuses on avoiding further harm in the future.[409] As a temporal scope of the risk anticipation, it is considered as "counterintuitive", but even if the previous stages failed, there is a growing tendency to assign that the principle remains relevant to avoid further harm.[410] Irrespective of these three contexts, prevention principle is a continuous risk anticipation obligation. Prevention can be exercised based on states' consideration, as long as it results in harm avoidance.[411]

The due diligence nature as the second element of the prevention principle does not seek to make all events of harm to be illegal, but rather to address the state's "best possible efforts to minimize the risk", particularly in attempting to avoid and prevent the occurrences of harm.[412] This nature of due diligence is commonly found in the requirement for States to take 'appropriate measures', 'all necessary measures' or 'all reasonable measures' to exhibit and prove that it has made 'best possible efforts' to prevent environmental harm. The due diligence element in prevention principle aims to create a "balance between two competing realities": that most activities which are potentially harmful to the environment are conducted by private entities whose actions cannot always activate State's responsibility but at the same time leaving these activities unregulated might create higher potential environmental harm.[413]

Nagymaros Project (Hungary/Slovakia), Judgment, 1997 I.C.J. Reports 7, ¶ 7.
[407] DUVIC-PAOLI, *supra* note 389, at 191.
[408] See Commentary to Article 17, ILC, *supra* note 402, ¶ 2.
[409] DUVIC-PAOLI, *supra* note 389, at 189.
[410] *Id.* at 192–94; See also SADELEER, *supra* note 389, at 45–46.
[411] DUVIC-PAOLI, *supra* note 389, at 196–98.
[412] ILC, *supra* note 402, at 154 para. (7).
[413] DUVIC-PAOLI, *supra* note 389, at 201; On its historical account, see TONY CABUS, DUE DILIGENCE AND

In the realm of environmental protection, due diligence provides the core element of variability in its application:[414] due diligence allows for States significant autonomy and flexibility on conducting their international obligations which needs to be assessed on case-by-case basis and simultaneously also varies based on the applicable legal framework,[415] as exhibited by the *South China Sea* tribunal who posit due diligence as the question of law, as opposite of the ITLOS Seabed Chamber's *Advisory Opinion* which interpreted due diligence based on factual elements.[416] As such, in determining the 'best efforts' of a State in pursuing its due diligence obligation, Duvic-Paoli provides four measures to observe:[417] 1) the existence of national legislation and administrative framework; 2) to undertake environmental impact assessment (EIA); 3) the exercise to cooperate; and 4) multi-stage processes.

The third element is the various level of geographical scope in which prevention might operate. Based on the Stockholm Principle 21, the crystallized obligations to avoid transboundary harm and to prevent harm to areas beyond the limits of national jurisdiction are the core geographical scope of prevention principle. In addition to these, some commentators argue that there is an emerging obligation of prevention which extend to domestic context.[418] This view is not without contestation; for example, ILC's member Murphy argued that: "International environmental law was primarily concerned with the prevention of transboundary harm or harm to common areas, such as the seas, and not with harm within national boundaries."[419] However, in furtherance of the extension of

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THE HIGH SEAS 7 (Routledge 2022).

[414] Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), 2011 ITLOS Report 10.

[415] ILA, *Study Group on Due Diligence in International Law* 2 (Jul. 2016); See also DUVIC-PAOLI, *supra* note 389, at 202.

[416] Makane Moïse Mbengue, *The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations*, 110 AMERICAN JOURNAL OF INTERNATIONAL LAW 285 (Cambridge University Press 2016).

[417] DUVIC-PAOLI, *supra* note 389, at 208–32.

[418] SANDS ET AL., *supra* note 124, at 201; ALEXANDRE CHARLES KISS & DINAH SHELTON, GUIDE TO INTERNATIONAL ENVIRONMENTAL LAW 113 (Martinus Nijhoff Publishers 2007).

[419] ILC, *Summary Record of the 3178th Meeting*, Yearbook of International Law Commission No. UN Doc. A/CN.4/SR.3178, 68 (2013).

prevention obligation to domestic realm, Duvic-Paoli argues that under certain conditions, prevention principle has achieved an 'objective standing' that makes it applicable *irrespective* of the location of harm.[420]

3.5.1.3 The Prevention Principle as an additional context of ESM

The initial response which can be invoked under international environmental law in addressing the risk of harm from transboundary movement of hazardous wastes is the prohibition against transboundary harm or the commonly known as the 'no-harm rule'. Indeed, the no-harm rule, which aim to protect the territorial integrity of States from external interference, provides that States are under the obligation to ensure that their generated hazardous wastes do not cause significant harm beyond their jurisdiction or control. However, the applicability of the duty to avoid transboundary harm does not clearly accommodate situations where the source of pollution is deliberately and consensually transferred.[421] This reasoning comes from the fact that throughout their life cycle, hazardous wastes are managed by a number of different operators (or 'persons' as defined by the Basel Convention), and undergone various process, including at recycling and final disposal facilities. These processes might be conducted either domestically or requiring transboundary movement between State of Export, State of Transit, and State of Import.

This applicability gap can be addressed by the prevention principle which introduce not only the negative duty to avoid transboundary harm established by the no-harm rule, but also the positive duty which expect States' proactivity in the face of risk.[422] This expected proactivity derives from the reasoning that the preventive principle establishes

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[420] DUVIC-PAOLI, *supra* note 389, at 254–58.
[421] Leslie-Anne Duvic-Paoli, *Fighting Plastics with Environmental Principles? The Relevance of the Prevention Principle in the Global Governance of Plastics*, 114 AJIL UNBOUND 195 (2020).
[422] *Id.* at 197.

the duty of due diligence and might provide additional context within which the environmentally sound management should be approached. The prevention principle has been implicitly included into the Convention, such as through Article 4 paragraph 2(c) which obliges persons involved in the hazardous waste management to "take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes…". This was also evident through the due diligence nature of the prevention principle, indicated in Article 4 paragraph 2 on the obligation of Party to take 'appropriate measures' in environmentally sound manage the transboundary movement of hazardous waste, to take appropriate legal, administrative, and other measure to implement the Convention's provisions (Article 4 paragraph 4), and to take the 'appropriate measures' to ensure that transboundary movement of hazardous waste can only be allowed if it meets criteria in Article 4 paragraph 9. The more explicit inclusion of the prevention principle can be found in Article 2(2.e) and Article 6 of the yet-into-force Protocol on Liability and Compensation under the Basel Convention.[423] However, the preamble 7bis of the Ban Amendment describes that transboundary movement of hazardous waste from Annex VII countries to non-Annex VII countries to have a high risk to the environment, which fulfills the material scope of the prevention principle and subsequently activates the temporal scope of risk anticipation, requiring Parties to anticipate such high or significant risk.

Thus, the approach to the interpretation of the environmentally sound management under the Basel Convention has evolved through the entry into of the Ban Amendment, especially the introduction of 'high risk' notion in its preambular paragraph 7bis. As previously argued, the newly attached element of prevention principle in the Ban Amendment entails an understanding that in case of transboundary movement of hazardous waste to developing countries, preventive consideration takes precedence in the face of a potential high risk. This also applies to hazardous wastes destined for recycling and

[423] Article 2(e) and Article 6 *Basel Protocol on Liability and Compensation (UNEP/CHW.1/WG/1/9/2)*.

recovery operations. By attaching prevention principle to ESM principle, the previously expression of "environmentally sound and efficient" under the Convention might have been modified as to constitute not having environmentally sound despite being efficient. Even in the case that a transboundary movement of hazardous waste from developed countries to developing countries is both efficient and environmentally sound, if the destination of such transfer is a developing country, such transfer should not be carried out, irrespective of whether it is more efficient or not. It should be noted that this understanding is only limited to those States that have adopted the Ban Amendment and there remains uncertainty on its applicability to the whole treaty regime. However, taking a closer look at the number of States that have adopted the Ban Amendment, which accounts for more than half of the Parties to the Basel Convention,[424] it seems that there is an emerging State consensus that the transboundary movement from developed to developing countries is indeed having a high risk and thus environmentally unsound, making the prevention principle and its entailing due diligence obligation to be applicable.

3.5.2 Change in rule: export prohibition to developing countries

The Ban Amendment modifies the rules and operationalization of the Basel Convention and subsequently changes the patterned behaviors of states under the regime. This modification can be observed in several activities required to transform the amended Basel Convention into a functioning regime. One change which can immediately be observed is the textual change, which is changes in the rules of the Convention. Ban Amendment stipulates that any transboundary movement of hazardous waste from Annex VII countries to non-Annex VII countries is now prohibited, both for final disposal and recycling and recovery operations.[425] For Annex VII countries who have ratified the Ban Amendment, it

[424] As of 2 August 2022, there are 101 Parties who have ratified the Ban Amendment and 189 Parties to the Basel Convention. See *Ratification of the Basel Convention Ban Amendment*, *supra* note 256.
[425] As of 24 January 2022, there are 37 Annex VII countries who have ratified Ban Amendment, including

means that the previously recognized rights to export the hazardous wastes have changed into an obligation to prohibit such export if it is destined to a country not listed under Annex VII.[426] Unlike the right to prohibit import, this right to export is not explicitly stipulated in the Convention's text. However, such right can be assumed through the provisions of the Basel Convention which allow such exports inasmuch as in observance of the environmentally sound management standards and through the prior informed consent mechanism. Following its entry into force, any Annex VII who has ratified the amendment shall cease immediately any hazardous wastes export operation to non-Annex countries, both for final disposal and recycling and recovery operations. This obligation to prohibit export to non-Annex VII stands even when the destined non-Annex VII state has not ratified the Ban Amendment. Ratification to the Ban Amendment by Annex VII countries imposes obligation on them to prohibit export to non-Annex VII countries, instead of modifying the right to prohibit import of hazardous wastes by the non-Annex VII countries.

Prior to Ban Amendment, competent authorities in developed countries have the obligation to notify potential importing and transit states of a proposed transboundary movements and act according to their responses. Competent authorities in developed countries also have the obligation to consider, based on available information in the

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Austria, Belgium, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Union, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and United Kingdom of Great Britain and Northern Ireland. That leaves only Australia, Canada, Israel, Japan, Mexico, and Republic of Korea (6 countries) as the non-ratifying parties. See *id.*

[426] As of 24 January 2022, there are 63 non-Annex VII parties that have ratified the Ban Amendment are Albania, Algeria, Andorra, Antigua and Barbuda, Argentina, Bahrain, Benin, Bolivia (Plurinational State of), Botswana, Brunei Darussalam, China, Congo, Cook Islands, Côte d'Ivoire, Ecuador, Egypt, El Salvador, Ethiopia, Gambia, Ghana, Guatemala, Guinea, Indonesia, Iran (Islamic Republic of), Jamaica, Jordan, Kenya, Kuwait, Lebanon, Lesotho, Liberia, Malawi, Malaysia, Maldives, Mauritius, Monaco, Montenegro, Morocco, Namibia, Nicaragua, Niger, Nigeria, North Macedonia, Oman, Panama, Paraguay, Peru, Qatar, Republic of Moldova, Saint Kitts and Nevis, Saint Lucia, Saudi Arabia, Serbia, Seychelles, Sierra Leone, South Africa, Sri Lanka, Syrian Arab Republic, Trinidad and Tobago, Tunisia, United Republic of Tanzania, Uruguay, and Zambia. There are 83 non-Annex VII parties to the Basel Convention who have yet to ratify the Ban Amendment. See *id.*

contracts, whether such movement would be managed in an environmentally sound manner and decide within the scope of "reasons to believe" to either allow or prohibit such movements. However, after the entry into force of Ban Amendment, competent authorities in Annex VII countries are now required to observe the memberships of Annex VII in determining a proposed transboundary movements and to prohibit such movement if the potential importing state is not listed under Annex VII. It exhibits a change in the operationalization of the PIC mechanism which previously rely on the consideration of environmentally sound management. Now, the consideration on ESM is not required since preambular paragraph of Ban Amendment automatically assumes all transboundary movement of hazardous wastes to developing countries constitute a high risk of not being managed in an environmentally sound manner.

How competent authorities in Annex VII countries' behavior was changed to be in accordance with the new rule is significant; the change in rules removes the ESM consideration process in determining whether a proposed transboundary movement of hazardous waste to non-Annex VII countries might adhere to ESM standards. Ban Amendment established the assumption that such movement has a high risk of not constituting ESM. Consequently, it automatically screened out developing countries as the potential destination for transboundary movement of hazardous waste. The new obligation to observe Annex VII also raises an issue since there is no further elaboration or provision regarding the expansion mechanism of Annex VII membership which consequently requires competent authorities to observe memberships of external treaty body. It also bears the question on who has the obligation to inform regarding any changes in the membership of Annex VII which happens outside the Convention's control. Nevertheless, it seems that the change in rule have 'disrupted' the established PIC-based restriction mechanism of transboundary movement of hazardous wastes. it further limits such practices and as such, provides incentives for Annex VII countries to minimize the generation and the transboundary movement of hazardous wastes, rather than continuing

the original regulatory scheme which examines any movement on prone-to error case-by-case approach.

3.5.3 Changes in operation

3.5.3.1 The North-South total ban mechanism

The North-South prohibition mechanism now emerges as the implication of Ban Amendment in which several of the previous relationships, regulated under the consent-based regulatory scheme between state of export and state of import, has subsequently changed. Such changes should now be examined in specific and complex contexts: the first condition is between Parties to both the Basel Convention and its Ban Amendment; second is when the proposed transboundary movement of hazardous waste is between a ratifying party to the Ban Amendment and a non-ratifying party of the Ban Amendment; the third condition is between a ratifying party to Ban Amendment and a non-party to the Basel Convention.

First, if all countries involved are Parties to the Basel Convention and Ban Amendment, the rules of the Ban Amendment apply since it specifically prohibits transboundary movement of hazardous wastes if Annex VII countries serves as a State of Export and non-Annex VII countries as the State of Import. Subsequently, the Ban Amendment has established three clusters in which transboundary movements of hazardous wastes are allowed to proceed: one is a cluster which is consisted Annex VII countries, the second cluster is between developing countries, and a specific cluster which the exporting state is a non-Annex VII country and the importing state is an Annex VII country.

The second condition is if both of the Parties involved are Parties to the Convention but only one is a non-ratifying state of the Ban Amendment. In the case that the ratifying state is an Annex VII and the non-ratifying state is a non-Annex VII countries, it is clear

that the ratifying Annex VII country as the potential State of Export has the obligation to prevent any transboundary movement of hazardous wastes to the non-Annex VII country, regardless of the State of Import's ratification status to the Ban Amendment. The more complex situation is in the case where the State of Export (Annex VII) is not a party of the Ban Amendment, but the proposed State of Import (non-Annex VII) has ratified the Ban Amendment. A reading of the Ban Amendment asserts that the State of Export (Annex VII) is under no obligation to prohibit their export to ratifying non-Annex VII since the provisions of Article 4A elaborate only the obligation to prohibit export associated with Annex VII states. Based on the State of Export's point of view, their exports would still be regulated under the PIC of notification and consent established under the Basel Convention which they originally ratified.

One interpretation regarding the position of State of Import is that they would be under no obligation to prohibit import of hazardous waste.[427] However, analyzing the position of the State of Import being a ratifying non-Annex VII should also take into consideration the provision under Article 10 paragraph 1 of the Basel Convention. Article 10(1) requires its Parties to cooperate *to improve and achieve environmentally sound management*. Ergo, the obligation to cooperate under Basel Convention was aimed on the improvement and achievement of principle of ESM and by consequence, it may require State of Import to consider that accepting imports from non-ratifying Annex VII would not constitute a cooperation in achieving environmentally sound management of hazardous wastes. Combined with the emerging norm of the North-South total ban as the convergence of expectations of Parties to the Convention, non-Annex VII countries who have ratified the Ban Amendment might face increasing pressure to prohibit such transfer.

Consequently, the regulatory scheme of Basel Convention has been modified. Prior

[427] Wirth argues that this is the better interpretation since it would not promote a clash of norm with the GATT/WTO legal regime. See Wirth, *supra* note 330, at 244.

to the Ban Amendment, the operationalization of the Convention is concluded based on a bilateral agreement or arrangement. It requires potential Parties to prohibit only if it has reasons to believe that those hazardous wastes would not be managed in an environmentally sound manner. With the Ban amendment, this regulatory scheme has been modified to consist both restriction mechanism based on prior informed consent and prohibition mechanism which immediately considers that any transboundary movements of hazardous wastes to non-Annex VII countries, especially from Annex VII countries, to have a high risk of not constituting environmentally sound management and thus is required to be prohibited. For example, Annex VII countries who ratified the Amendment and previously allowed exports of hazardous wastes to non-Annex VII countries would now need to find other Annex VII countries to export such wastes or to dispose those wastes in their own country. The latter option might subsequently necessitate those Annex VII countries to re-focus more on the waste minimization element of the ESM principle or to establish adequate disposal facilities in their own jurisdiction. Thus, evolution of the Basel Convention's operationalization after the entry into force of Ban Amendment have strengthened the aim of the Convention itself by subsequently modifying the behavior of Parties, particularly the behavior of Annex VII countries.

3.5.3.2 From Bilateral to Catch-all mechanism

Ban Amendment has established a more complex regulatory scheme of restriction and prohibition under the Basel Convention, changing the Convention's nature from a restriction mechanism based on PIC, in which consent of the importing states serves as the 'enabler' for any proposed transboundary movement to take place, to be both consent-based mechanism and prohibition mechanism based on North-South total ban. The consent of importing states in PIC is recognized through the sovereign right to prohibit import in preambular paragraph 6, and further confirmed by its derivative obligation to inform when exercised through Article 4 paragraph 1(a). This is based on the principle of sovereign right

of states over the use of their territory which entails the freedom of every state to *exploit* resources in its own territory and to *control* activities within its own are of jurisdiction. This principle "provides more guidance with respect to the issue of pollution source transfer than the limitation of the 'freedom to pollute'."[428] Thus, the consent emerges from "the right to accept or refuse for a potentially hazardous activity to be carried out within its own area of jurisdiction as a part of state's right to control activities within its own territory", either enabling or prohibiting any transboundary movement of hazardous waste which would trigger the PIC mechanism.[429]

Article 4A introduces the new Annex VII, listing countries which at the time were considered as developed countries (OECD countries, EC countries, and Liechtenstein) from which any export of transboundary movement of hazardous wastes both for final disposal and recycling are now prohibited. Annex VII basically divides Parties to the Convention into controversial categorization of Annex VII Parties and non-Annex VII Parties. Since the adoption of the decision in 1995, many of non-Annex VII countries have proposed to be included into Annex VII, arguing that their increasing ability to environmentally sound managed hazardous wastes and economic opportunities.[430] But as elaborated in prior section, Annex VII cannot and should not be modified as to support the aim of the Ban Amendment, that is to achieve environmentally sound management as the original aim of the Basel Convention.

Annex VII has subsequently modified how contracts on transboundary movement of hazardous waste should be established. Prior to Ban Amendment, the PIC mechanism requires a communication of written communication between State of Export and State of Import (including persons involved) under the PIC mechanism. The rules governing the

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[428] KUMMER, *supra* note 18, at 20.
[429] ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW 323 (Transnational Publishers 1991).
[430] Annex VII read as "Parties and other States which are members of OECD, EC, and Liechtenstein." *Basel Convention*.

PIC mechanism in the Basel Convention are found in Articles 6 and 7 and in Annexes VA and VB. This intricate mechanism involves a number of actors over various process of written notifications and confirmation which might be susceptible to error and misconducts due to various factors. For example, the designation of Competent Authorities and Focal Point does not mean they have the qualification or resources to effectively carry out their duty.[431] Other issue is the despite the availability of notification and movement document form, there is no obligation to use them; provisions under the Basel Convention only "requests" party to do so and might prone to different standards or a falsification practice on the document.[432]

After the entry into force of Ban Amendment, the operationalization of the Basel Convention has been modified from bilateral contract between exporting and importing states to disregard the PIC mechanism altogether. In the PIC mechanism, any prohibition in a bilateral contract might be in the form of notification of prohibition from state of import, or from either exporting or importing states if any of them has reason to believe that the waste would not be management in an environmentally manner (Article 4 paragraph 2(e) and paragraph 2(g)). The Ban Amendment has subsequently modified its operationalization to be based on the membership of Annex VII, which is a grouping of Parties. The Ban Amendment total ban mechanism does not require any notification of not-consenting, since any transboundary movement of hazardous wastes from Annex VII to non-Annex would immediately be prohibited, exhibiting a 'catch-all' approach based on Annex VII membership or not. This modification, or evolution of operationalization of the Basel Convention might provide a mechanism less prone to error or misconduct, thus provide better incentives for achieving the environmentally sound management.

[431] Strohm, *supra* note 61, at 141.
[432] Clapp, *supra* note 11; Krueger, *supra* note 379, at 121.

3.5.3.3 Stricter implementation of Article 11

Reading ESM interpretation having waste minimization, strict regulatory scheme within the context of prevention principle through the introduction of high-risk concept to transboundary movement from developed countries to developing countries, it can be argued that ESM principle under the Basel Convention has changed to have stricter standards. While Ban Amendment only applies to Parties who ratifies it and consequently the applicability of this implementation is currently limited, this study argues that it might become a norm under the Convention. Another consideration which might add to the argument is what this study previously argued about the emerging norm of North -South total ban. It provides another incentive for this evolution of a stricter implementation of ESM and subsequently put more pressure to the non-ratifying countries to reconfigure their behavior under the Convention.

As previously elaborated, the new preambular paragraph contributes to the interpretation of ESM by introducing the element of transboundary movement of hazardous waste to developing countries as having 'high risk' of not constituting ESM. Its wording would strengthen the ESM by introducing the context of prevention principle to ESM, since it fills the criteria of the prevention principle by having risk to environmental harm, the risk is foreseeable since it has a probability of causing significant harm ('high risk'), and the magnitude of 'significant' harm, which might be argued as the dangerousness of environmentally unsound management of hazardous waste (such as in the case of Trafigura).[433]

Furthermore, a stricter interpretation of ESM principle now having elements of waste minimization, prevention principle, and strengthened by the emerging norm of North-South total ban would provide a stricter interpretation of ESM in regard to Article 11. The

[433] On Trafigura and 2006 Ivory Coast toxic waste dump, see e.g., Gary Cox, *The Trafigura Case and the System of Prior Informed Consent under the Basel Convention - A Broken System*, 6 LAW ENV'T & DEV. J. 265 (2010).

"no-less environmentally sound" standards of ESM under Article 11 would have to include these elements. Prevention principle, now an important element of ESM principle, provides an emerging concern of "preventive action" in light of high risk of not constituting environmentally sound management, which subsequently might pose a risk to significant environmental harm through environmentally unsound management such as damage to human health and the environment. This stricter interpretation of ESM may arguably only apply to any transboundary movement which involve at least one party of the Convention ratifying the Ban Amendment. Thus, while the ordinary interpretation and applicability of Article 11 would be stricter, transboundary movement of hazardous wastes under the limited ban mechanism adhering to the provisions of Article 11 only applies to between Annex VII Non-Party to Basel Convention and non-Annex VII party to Basel not ratifying the Ban Amendment or between Annex VII countries in which one of them is not a party to the Basel Convention.

3.5.4 Annex VII: a 'delegation of mechanism'?

After the entry into force of the Ban Amendment, the mandate of BC-IV/8 suspending any further deliberation on Annex VII has become expired. Any party to the Convention including the Secretariat may now propose the inclusion of Annex VII negotiation into the agenda of COP, and considering the contentious debates arising from previous deliberation, we would assume that the issue would be proposed as early as COP-14 in 2019, the first COP to be convened after the entry into force of Ban Amendment. It is thus quite puzzling that up until the online COP-15 convened in 2021, there has yet any formal proposal for the continuation of Annex VII negotiation.[434] Taking into account the recent development

[434] See *COP-14 Report (UNEP/CHW.14/28)*, *supra* note 197; Due to the ongoing COVID-19 pandemic, COP-15 was reformatted to include two sessions, one was convened online in 2021 and the face-to-face session will be convened in June 2022. See Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal Fifteenth Meeting Provisional Agenda, No. UNEP/CHW.15/1 (Dec. 14, 2020).

of plastic waste issue under the Convention (see chapter 4), and Ghana-Switzerland amendment proposal to include non-hazardous Waste of Electronic and Electrical Equipment (WEEE) into Annex II, VIII, and IX, it might explain the inactivity on Annex VII issue since the prior issues are both emerging to be global priorities.[435]

Other explanation for this is closely related to the contentious debates of Annex VII itself; that perhaps after more than 20 years since BC-IV/8, countries are unenthusiastic to restart the rigorous negotiation. As previously elaborated, the issue of Annex VII was closely related to its current membership and its potential accession mechanism. Equating developed countries as OECD, EU, and Lichtenstein indeed prompted comments from other countries-in-transitions during the negotiation. The other issue was in the likelihood that the permanence of Annex VII becomes flexible under the Convention, the question was on how the mechanism for such accession should be formulated.

At first glance, it seems that the criteria of Annex VII creates a 'loophole' because the issue of Annex VII memberships is determined outside Basel Convention's mechanism through OECD and EU membership where Basel regime does not have a competence or control. Since the suspension of Annex VII negotiation, the number of Annex VII members has increased: EU has 13 additional members while OECD has 9 additional members with a number of them were previously considered as countries-in-transition and developing countries.[436] Doubtlessly, the consideration to apply for membership for EU/OECD is not only solely because they want to trade hazardous wastes, but those countries might assert

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[435] See Proposal by Ghana and Switzerland to amend Annexes II, VIII and IX to the Basel Convention, No. UNEP/CHW.15/13/Add.2 (Feb. 9, 2021); *Information from Ghana and Switzerland on Their Proposal to Amend Annexes II, VIII and IX to the Basel Convention*, No. UNEP/CHW.15/INF/22 (Jun. 2021).

[436] Even Brazil who was concerned with Ban Amendment disrupting their recycling industry and request their inclusion into Annex VII is currently being considered to be invited to be a member of OECD. This might further strengthen the argument that a number of countries consider that OECD or EU membership mechanism also provides incentive in term of hazardous waste transfer benefits by automatically including them into Annex VII and consequently access to their preferred hazardous waste market. See *OECD Strengthens Engagement with Partner Countries during Annual Ministerial Meeting - OECD*, https://www.oecd.org/countries/lithuania/oecd-strengthens-engagement-with-partner-countries-during-annual-ministerial-meeting.htm (last visited Jan. 13, 2022).

that becoming a member of EU or OECD provides merits, among them, is the automatic inclusion into Annex VII. Thus, despite the suspension of negotiation through BC-IV/8 and the argument of permanence of Annex VII, its membership is growing.

Yet at the same time, by stipulating EU or OECD membership as the criteria of Annex VII, it creates an unintended consequence of 'delegating' the task of 'screening' countries for Annex VII to a more rigorous accession mechanism and review process under EU or OECD. The 'screening' processes under EU or OECD here means that any candidate country applying for membership for either entity must undergo an evaluation process encompassing wide-range policy areas to measure its willingness and capabilities to implement OECD or EU legal instruments, including legal instruments related to hazardous waste management. By undergoing such process, a country thus can be considered as a member of OECD or EU including having the capabilities to implement OECD or EU standards on hazardous waste management and consequently considered as "developed country" under the Basel Convention. Establishing similar "fit-and-proper test" mechanism to demonstrate the capabilities of a state party to manage waste in an environmentally sound manner to be considered as a 'developed country' is a daunting task for the Basel regime at the time and might probably be well outside the competence of Basel Convention. It is important to note that this might have a paradoxical implication; it might still serve one of the Ban Amendment's aims of protecting developing countries from risks of hazardous waste transfer by increasing the number of countries now prohibited to export hazardous waste to developing countries, but on the other hand it does not provide incentive to another aim of the Convention to minimize the generation of waste.

From international legal perspective, Annex VII's form of 'delegation of mechanism' to other legal instrument's mechanism is intriguing; it raises the question on how to define such form of relation between two or more international legal instruments' provisions (in this case, Annex VII of Basel Convention, accession's provisions on EU and OECD). This form of relation can only emerge in a fragmented but not disconnected nature of

international law.[437] Since intellectual care demands cautious use of words, the present analysis would not characterize this form of relation as interaction but rather a connection; interaction requires the element of reciprocity or mutual action while a connection only requires a 'link' between two Parties.[438] Such connection is a one-way conduct as exhibited by how Annex VII 'delegates', albeit unintended, the criteria for a country to be categorized as 'developed' based on EU or OECD mechanism. Nevertheless, Annex VII's delegation complements the argument that the fragmentation of international law does not necessarily 'evil', since it provides incentives for this form of connection between international legal instrument to emerge and a push towards coherence under a fragmented international legal environment, albeit slightly.[439]

Characterizing such form of 'delegation of mechanism' is perplexing. For example, it does not comfortably conform to the concept of 'substantive borrowing', described by Ziegler in the context of legal relationship between EU-international law as "the use of international or foreign law outside of a formal relationship within a legal order".[440] It's different with what was earlier identified since 1) 'substantive borrowing' elaborates a 'borrowing' by *domestic* legal order from international or foreign law; 2) it borrows a legal

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[437] On the general discussion on the fragmentation of international law, see generally International Law Commission Study Group, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, No. U.N. Doc. A/CN.4/L.682, 256 (Apr. 2006); REGIME INTERACTION IN INTERNATIONAL LAW: FACING FRAGMENTATION (Margaret A. Young ed., Cambridge University Press 2012).

[438] *Definition of INTERACTION*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/interaction (last visited Jan. 14, 2022).

[439] Peters also briefly touched upon its problems and opportunities while elaborating the dialectics of fragmentation. See Anne Peters, *The Refinement of International Law: From Fragmentation to Regime Interaction and Politicization*, 15 INT J CONST LAW 671 (Oxford Academic Oct. 2017); Cf. Martti Koskenniemi & Päivi Leino, *Fragmentation of International Law? Postmodern Anxieties*, 15 LEIDEN JOURNAL OF INTERNATIONAL LAW 553 (Sep. 2002); Gerhard Hafner, *Pros and Cons Ensuing from Fragmentation of International Law Diversity or Cacophony: New Sources of Norms in International Law Symposium*, 25 MICH. J. INT'L L. 849 (2003–2004); Campbell Mclachlan, *The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention*, 54 INTERNATIONAL & COMPARATIVE LAW QUARTERLY 279 (Apr. 2005).

[440] Substantive borrowing arguably opens up one legal order to another and subsequently facilitates coherence. Ziegler also pointed out that in the face of its "very flexible, formally unstructured, and selective nature", substantive borrowing raises the question of legal certainty. See Katja S. Ziegler, *Beyond Pluralism and Autonomy: Systemic Harmonisation as a Paradigm for the Interaction of EU Law and International Law*, 35 YEARBOOK OF EUROPEAN LAW 667, 12–14 (2016).

norm/mechanism from outside source to be adapted *into* its legal order and 3) it entails a two-way *interactions*. It further elaborates what Professor Watson argued as 'legal transplant' in comparative law studies which will not be explored under this analysis.[441] While this 'delegation' does conform to the systemic integration doctrine serving as what McLachlan described as "*master key"* with which Basel Convention has access to other international legal instruments,[442] it only relevant insofar to how the interpretation of what is considered as 'developed country' (under Basel Convention) is referred as the members of EU or OECD (having their own accession mechanism to be included as members). The 'delegation' of Annex VII does not further correspond with the doctrine since there is no integration process to emerge between the legal instruments.

The implication of such 'delegation of mechanism' is closely related to the lack of control that can be exerted by the Basel regime to influence foreign mechanism. This lead to the continual expansion of Annex VII membership, despite the commitment made by the Basel Convention's Parties to suspend any discussion. While such expansion might be a form of forum-shopping employed by countries having interest in becoming Annex VII member but facing the suspension of talks, it nevertheless seems to unintentionally circumvent a COP decision adopted by consensus. Furthermore, a continual expansion might undermine the effectiveness of Annex VII serving as the criteria for Ban Amendment.

Indeed, since it is an unintended implication of the entry into force of Ban Amendment, the potential risk of Annex VII's effectiveness being eroded by the expansion of OECD and EU membership might provide an incentive to reopen the discussion on Annex VII. Yet formulating an appropriate alternative to current criteria might require a

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[441] Cairns elaborated the extensive ideas and debates regarding "legal transplant". See John W. Cairns, *Watson, Walton, and the History of Legal Transplants*, 41 GA. J. INT'L & COMP. L. 637 (2012–2013); See also Christopher McCrudden, *Judicial Comparativism and Human Rights*, *in* COMPARATIVE LAW: A HANDBOOK 371 (Esin Örücü & David Nelken eds., Nov. 2007).
[442] Mclachlan, *supra* note 439, at 281.

thorough and strenuous efforts from all Parties since it has to consider the stricter ESM interpretation and precise definition of hazardousness. Even in a scenario where the membership of Annex VII would be open to adjustment, establishing a criteria or mechanism based on ESM capacities, as some have proposed, would prove to be a complex issue. As acknowledged by an analysis produced by OEWG,[443] creating a framework to consider a country's performance in ESM would require building an extensive set of indicators to assess environmental, economic, and other aspects. Basel Convention and its subsidiary bodies are not well-equipped and well-funded to perform such task. Further identification and clarification of this form of implication requires more elaborate study and might deviate from what this research was intended to do. Hence, for the time being, I would limit such inquiry by defining this as 'delegation of mechanism', defined as a type of relation between international legal instruments in which a required process is delegated, conscious or unconsciously, to other legal instrument's mechanism.

3.6 Conclusion: A shift in the focus of ESM

How the operationalization of the Basel Convention evolved as an implication of the Ban Amendment can be observed from four aspects. First is the addition of prevention principle as an implication of the preambular paragraph. Second is the change in the trading rule affecting those Annex VII countries that ratified the Ban Amendment, namely their right to export has changed into an obligation to prohibit export of hazardous wastes to developing countries. This change in the rule subsequently changed how actors conduct their behavior, in particular the competent authorities in exercising their role within the regulatory scheme. Third is the change in the operationalization of the regulatory mechanism. The Ban Amendment has established the North-South total ban, changing the previous regulatory mechanism based on bilateral agreement or arrangement concluded

[443] *COP (UNEP/CHW.7/12)*, *supra* note 370.

between potential State of Export and State of Import. The Ban Amendment instead has brought about several groupings of countries in the management scheme of hazardous wastes: first, between Annex VII countries themselves, second, between non-Annex VII countries themselves, and third, between non-ratifying and ratifying countries of the Ban Amendment. Fourth is the change brought about in the stricter implementation of Article 11 which requires non-party states to further consider the prevention principle as an additional context of environmentally sound management in drafting the agreement or arrangement with Parties to Basel Convention with which they intend to trade

It is argued that the changes indicated above in the operationalization of the environmentally sound management as the foundational principle of the Basel Convention have shifted the focus of the principle from the emphasis on the regulatory scheme to the minimization of hazardous waste generation and transboundary movement. This shift in focus, it is argued, coincides with the waste management hierarchy, that is the minimization should be a priority to the regulation. As such, it can be argued that the environmentally sound management as the original aim of the Convention has been strengthened since the current emphasis on waste minimization is more in accordance with the waste hierarchy and closer to the original intention of the Convention.

CHAPTER 4.

THE 2019 PLASTIC WASTE AMENDMENT

One of the recent major developments under the Basel Convention is the adoption of Government of Norway's proposal to amend Annex II, Annex VIII, and Annex IX, making consent-based PIC mechanism under the Convention to be applicable to vast range of plastic waste streams. The COP-14 of the Basel Convention in 2019 adopted the Plastic Waste Amendment, as commonly referred, through decision BC-14/11, aiming to provide more clarity on the regulation of previously solid plastic waste to establish new category of plastic waste to trigger PIC mechanism, previously transported as no-risk and low-risk commodities.[444] Under the previous regulatory scheme, the custom authorities' attention hardly focused on those shipments containing plastic wastes, allowing for potentially hazardous shipments of contaminated, unrecyclable plastic wastes, often mixed with other wastes, to enter territories where no proper recycling or disposal facilities exist. Also, those shipments have been conducted between private actors rarely under the control or intervention of environmental and custom authorities, making those shipments to be 'devoid of environmental responsibility' despite the nature of the shipments being transported.[445]

The timely adoption of plastic amendment can be considered as a response of the Basel Convention to adapt to the emerging issue of global plastic waste, marine litters, and microplastic. One research estimates 8300 million metric tonnes (MMT) of plastic has

[444] The Government of Norway initially proposed for removal of B3010 'solid plastic waste' from Annex IX to provide more clarity while informing the Secretariat that it planned to propose another amendment. See Government of Norway, *Application by Norway to Amend Annex IX to the Basel Convention and Addendum*, No. UNEP/CHW/OEWG.11/INF/36 (Jun. 2018); Secretariat of the Basel Convention & Norwegian Ministry of Climate and Environment, *Proposals to Amend Annexes II, VIII and IX of the Basel Convention to Be Considered at the Fourteenth Meeting of the Conference of the Parties* (Oct. 2018).
[445] Khan, *supra* note 19.

been produced since 1950s, and 75% (6300 MMT) ended up as waste.[446] A great number of those wastes are inadequately managed, with one estimate that between 4.8 to 12.7 MMT of land-based plastic wastes entering oceans in 2015 alone.[447] The hazard potentials of plastic waste are well-documented. For example, the non-biodegradable nature of most plastic waste poses high risk of accumulations in the environment and in living organisms. Its property to break down into smaller bits (commonly known as microplastics) especially those found and accumulated in environment may lead to serious environmental and health problems. Indeed, microplastics are found in fish catches and fish meals.[448] There are other scientific findings such as the Great Pacific Garbage Patch,[449] and marine animals harmed by fishing nets,[450] etc. Yet the risk of plastic pollution to human health has not yet fully understood.[451] The highly-persistent property of plastic in the environment allows it to accumulate at various types of ecosystems which may enter human body through inhalation or ingestion.[452] The lack of information on human exposure prevents current researches to fully comprehend to what extent it might affect human health, but epidemiological studies have found that workers in the plastic and textile industry are more prone to lung injuries, including inflammation, fibrosis, and allergy.[453]

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[446] Roland Geyer et al., *Production, Use, and Fate of All Plastics Ever Made*, 3 SCIENCE ADVANCES e1700782 (Jul. 2017).
[447] Jenna R. Jambeck et al., *Plastic Waste Inputs from Land into the Ocean*, 347 SCIENCE 768 (Feb. 2015).
[448] Valter Castelvetro et al., *Microplastics in Fish Meal: Contamination Level Analyzed by Polymer Type, Including Polyester (PET), Polyolefins, and Polystyrene*, 273 ENVIRONMENTAL POLLUTION 115792 (Mar. 2021); Christina J. Thiele et al., *Microplastics in Fish and Fishmeal: An Emerging Environmental Challenge?*, 11 SCIENTIFIC REPORTS 2045 (Jan. 2021).
[449] L. Lebreton et al., *Evidence that the Great Pacific Garbage Patch is Rapidly Accumulating Plastic*, 8 SCIENTIFIC REPORTS 4666 (Mar. 2018).
[450] W. C. Li et al., *Plastic Waste in the Marine Environment: A Review of Sources, Occurrence and Effects*, 566–567 SCIENCE OF THE TOTAL ENVIRONMENT 333 (Oct. 2016); Guanglong Chen et al., *Occurrence and Ecological Impact of Microplastics in Aquaculture Ecosystems*, 274 CHEMOSPHERE 129989 (Jul. 2021).
[451] Kala Senathirajah et al., *Estimation of the Mass of Microplastics Ingested – A Pivotal First Step towards Human Health Risk Assessment*, 404 JOURNAL OF HAZARDOUS MATERIALS 124004 (Feb. 2021); A. Dick Vethaak & Juliette Legler, *Microplastics and Human Health*, 371 SCIENCE 672 (Feb. 2021).
[452] Anthony L. Andrady, *The Plastic in Microplastics: A Review*, 119 MARINE POLLUTION BULLETIN 12 (Jun. 2017); Luís Gabriel Antão Barboza et al., *Marine Microplastic Debris: An Emerging Issue for Food Security, Food Safety and Human Health*, 133 MARINE POLLUTION BULLETIN 336 (Aug. 2018).
[453] Stephanie L. Wright & Frank J. Kelly, *Plastic and Human Health: A Micro Issue?*, 51 ENVIRON. SCI. TECHNOL. 6634 (Jun. 2017); Vethaak & Legler, *supra* note 451.

At the same time, plastic waste is a global commodity in waste trade. In 2017, the global plastic waste trade was valued USD 4.5 billion for export and USD 6.1 billion for import, while the global total trade volume of plastic waste reached its peak during 2012-2017 period at 16.5 MMT.[454] Not until China, at the time was the biggest importer of those plastic wastes, implemented its 2017 National Sword Policy of banning almost all types of plastic waste imports that the global plastic waste trade was abruptly disrupted, with total trade volume decreased to almost half of the previous year.[455] Chinese government's policy also led to developed countries' scramble for substitute importer countries, with Southeast Asian countries become the immediate 'recycling' destinations.[456] Inadequate disposal facilities, coupled with lenient regulations resulted in what have been called by environmental NGOs "environmental disasters" and "illegal imports" of plastic wastes, such as recent cases in Malaysia, Indonesia, and The Philippines.[457]

The emerging conscience on how plastic has become so embedded in our daily life, the consequences of decades-long mismanaged plastic wastes, the emerging reports on its potential harm to human health and the environments, and cases of illegal imports have led global communities in concerted actions to tackle the issue, raising concerns in a number of international fora. They include, for example, the establishment of ad hoc open-ended expert group on marine litter and microplastics under the auspice of United Nations Environmental Assembly (UNEA),[458] the launching of Global Partnership on Marine

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[454] Cf. Margareth Sembiring, *Global Waste Trade Chaos: Rising Environmentalism or Cost-Benefit Analysis?*, IN19-02 NTS INSIGHT (Jul. 2019); Jiujie Shi et al., *The Expansion and Shrinkage of the International Trade Network of Plastic Wastes Affected by China's Waste Management Policies*, 25 SUSTAINABLE PRODUCTION AND CONSUMPTION 187 (Jan. 2021); Yangyang Liang et al., *An Analysis of the Plastic Waste Trade and Management in Asia*, 119 WASTE MANAGEMENT 242 (Jan. 2021).
[455] Shi et al., *supra* note 454, at 189.
[456] Greenpeace, *supra* note 1; Uhm, *supra* note 19.
[457] Greenpeace, *supra* note 1; Uhm, *supra* note 19; Liang et al., *supra* note 454; See also Nexus3, *supra* note 1; Higashida, *supra* note 330; Greenpeace Philippines & EcoWaste Coalition, *Waste Trade in The Philippines: How Local and Global Policy Instruments Can Stop the Tide of Foreign Waste Dumping in the Country.* (Mar. 2020).
[458] Resolution 3/7. Marine litter and microplastics, UNEP/EA.3/Res.7, United Nations Environment Assembly, 3d Sess. (2018).

Litter (GPML) during Rio+20,[459] the Clean Sea Campaign under UNEP,[460] and through legal framework and action plan under regional seas conventions. There are also global binding instruments relevant to the plastic waste issue, including UNCLOS, the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement), the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), the Convention on Biological Diversity (CBD), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the International Convention for the Prevention of Pollution from Ships (MARPOL) and its Annex V (Garbage), and the Stockholm Convention on Persistent Organic Pollutants.

Despite the abundance, there is a gap in addressing the transboundary movement of plastic wastes to countries without adequate disposal facilities. The generally accepted argument is that marine litter and microplastic are originating from land-based activities,[461] yet current legal frameworks mainly focus on the 'pollution' aspect of the problem, leaving some legal gaps open, such as on addressing land-based activities that entail production, use, and waste management.[462] In regard to waste management, Basel Convention remains the only treaty to directly address the full cycle of land-based wastes; its aim being the minimization of hazardous waste generation and its transboundary movements under the foundational principle of environmentally sound management (ESM) of hazardous wastes. The plastic waste amendment to Annex II has made the vast range of plastic waste being

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[459] *Who We Are*, GLOBAL PARTNERSHIP ON MARINE LITTER, https://www.gpmarinelitter.org/who-we-are (last visited Jun. 3, 2021).
[460] *About*, CLEAN SEAS, https://www.cleanseas.org/about (last visited Jun. 3, 2021).
[461] See José G. B Derraik, *The Pollution of the Marine Environment by Plastic Debris: A Review*, 44 MARINE POLLUTION BULLETIN 842 (Sep. 2002); See also Marcus Eriksen et al., *Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea*, 9 PLOS ONE e111913 (Dec. 2014); Jambeck et al., *supra* note 447; Melanie Bergmann et al., *Sea Change for Plastic Pollution*, 544 NATURE 297 (Apr. 2017).
[462] Elizabeth A. Kirk & Naporn Popattanachai, *Marine Plastics: Fragmentation, Effectiveness and Legitimacy in International Lawmaking*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 222 (2018).

under the purview of the Basel Convention, with the legal potential of its provisions and mechanisms being applied to the plastic wastes. It is thus important to examine whether and how the new amendment has changed the operationalization of the Basel Convention and to what extent it had influenced the ESM principle under the Convention.

This chapter seeks to explore the significance of the 2019 Plastic Waste Amendment in its four aspects: First, how the amendment reinvigorated the discourse on Annex II under Basel Convention; second, its operational implications to the Basel Convention regime itself; third, how the amendment might actually realize the ESM principle especially the minimization of waste generation; and finally, what this recent development might offer to the global discourse on plastic waste. This chapter starts by exploring the global issue on plastic waste and current legal framework related to the issue to find whether a potential legal gap exists for Basel Convention to fill (Section 4.1). It then discusses the development of Annex II of the Basel Convention which addresses "Categories of Wastes Requiring Special Consideration" (Section 4.2) and, in light of which, how the discourse on plastic waste and Plastic Waste Amendment under the Convention have come to gain prominence (Section 4.3). Based on those examination, in Section 4.4, an analysis on its implications to the Basel Convention as an evolving treaty regime will be made. Finally, Section 4.5 will elaborate what Basel Convention and its Plastic Waste Amendment might offer to the global efforts in tackling the plastic waste issue and how it could be implemented. This chapter will conclude with an argument that, despite facing what is referred to as 'relevancy dilemma', the Basel Convention regime is indeed equipped to adapt to new emerging waste issues such as plastic wastes by utilizing Annex II as the means to broaden its scope. Indeed, the Basel Convention regime has exhibited evolving characteristics by inventing a new approach to broaden its scope so as to apply its foundational principle of ESM focusing on its waste minimization element.

4.1 The global issue of plastic waste

4.1.1 (Not so) Emerging global problem

The global concern on plastic waste, marine debris, and microplastic has been rapidly increasing during the last decade when evidences after evidences were reported on the actual threat of mismanaged plastic wastes for human health, the environments and biodiversity, especially marine ecosystems, such as marine litters directly or indirectly injuring or killing wildlife,[463] altering ecosystems by disrupting or introducing new plastic-tolerant species,[464] endangering seabed habitat,[465] and found on every environment media from air,[466] groundwater and soils.[467] Yet, plastic pollution issue is not a recent one; it has been first discovered and reported since 60 years ago, using Continuous Plankton Recorder (CPR) which recorded plastic materials in the North Atlantic Ocean in 1957.[468] It started to be widely reported since the 1990s, one example is when the now-controversial solid plastic microbeads were being used by cosmetic and hygiene industries, also the start of

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[463] See Madelaine M. Jones, *Fishing Debris in the Australian Marine Environment*, 30 MARINE POLLUTION BULLETIN 25 (Jan. 1995); Markus T. Lasut et al., *From Coral Triangle to Trash Triangle—How the Hot Spot of Global Marine Biodiversity Is Threatened by Plastic Waste*, Proceedings of the International Conference on Microplastic Pollution in the Mediterranean Sea 107 (Mariacristina Cocca et al. eds., Springer International Publishing 2018); R. H. Waring et al., *Plastic Contamination of the Food Chain: A Threat to Human Health?*, 115 MATURITAS 64 (Sep. 2018).

[464] David K. A. Barnes, *Invasions by Marine Life on Plastic Debris*, 416 NATURE 808 (Apr. 2002); SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY, IMPACTS OF MARINE DEBRIS ON BIODIVERSITY: CURRENT STATUS AND POTENTIAL SOLUTIONS (Secretariat of the Convention on Biological Diversity 2012).

[465] Mary J. Donohue et al., *Derelict Fishing Gear in the Northwestern Hawaiian Islands: Diving Surveys and Debris Removal in 1999 Confirm Threat to Coral Reef Ecosystems*, 42 MARINE POLLUTION BULLETIN 1301 (Dec. 2001); Sanae Chiba et al., *Human Footprint in the Abyss: 30 Year Records of Deep-Sea Plastic Debris*, 96 MARINE POLICY 204 (Oct. 2018).

[466] Johnny Gasperi et al., *Microplastics in Air: Are We Breathing It In?*, 1 CURRENT OPINION IN ENVIRONMENTAL SCIENCE & HEALTH 1 (Feb. 2018); Sajjad Abbasi et al., *Distribution and Potential Health Impacts of Microplastics and Microrubbers in Air and Street Dusts from Asaluyeh County, Iran*, 244 ENVIRONMENTAL POLLUTION 153 (Jan. 2019); Stacey O'Brien et al., *Airborne Emissions of Microplastic Fibres from Domestic Laundry Dryers*, 747 SCIENCE OF THE TOTAL ENVIRONMENT 141175 (Dec. 2020).

[467] Defu He et al., *Microplastics in Soils: Analytical Methods, Pollution Characteristics and Ecological Risks*, 109 TRAC TRENDS IN ANALYTICAL CHEMISTRY 163 (Dec. 2018); Viviana Re, *Shedding Light on the Invisible: Addressing the Potential for Groundwater Contamination by Plastic Microfibers*, 27 HYDROGEOL J 2719 (Nov. 2019); Qun Zhang et al., *A Review of Microplastics in Table Salt, Drinking Water, and Air: Direct Human Exposure*, 54 ENVIRON. SCI. TECHNOL. 3740 (Apr. 2020).

[468] Richard C. Thompson et al., *Lost at Sea: Where is All the Plastic?*, 304 SCIENCE 838 (May 2004); Clare Ostle et al., *The Rise in Ocean Plastics Evidenced from a 60-Year Time Series*, 10 NATURE COMMUNICATIONS 1622 (Apr. 2019).

eco-labelling practices and how it related to the plastic packaging.[469] The plastic pollution has since found in the open ocean, even in seabed, prompting suggestions that the current estimate of marine plastic debris is only the tip of the iceberg of greater pollution since deep ocean is also the least explored region of the earth.[470]

4.1.2 The dilemma of plastic waste trade

Plastic has infiltrated every aspect of daily life, with packaging serves as its biggest sector (40%) since plastic is easy to mold yet durable, light, and cost less to produce, allowing manufacturers to efficiently mass-produce to cater the market and shifting usage from traditional, reusable to single-use packaging.[471] As a result, share of plastics in municipal solid waste increased from 1% in the 1960s to more than 10% in developed countries and countries in transition. The exponential growth of plastic consumption has not been accompanied with equally adequate waste management system; one estimate suggests that 6300 MMT of primary (plastics produced from virgin materials) and recycled plastics ended up as wastes, with 78% (4900 MMT) ended up at landfills and natural environment, 12% (800 MMT) were incinerated, and the rest (600 MMT) were recycled, mostly in developed countries with proper disposal facilities.[472] Between those numbers, a large amount of plastic wastes ended up transferred to another country or being traded for

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[469] See R. S. Shomura & M. L. Godfrey, *Proceedings of the Second International Conference on Marine Debris 2-7 April 1989, Honolulu, Hawaii, Volume 2*, NOAA TECHNICAL MEMORANDUM (1990); on microbeads, see Peter Dauvergne, *The Power of Environmental Norms: Marine Plastic Pollution and the Politics of Microbeads*, 27 ENV. POL. 579 (Jul. 2018); on packaging, see Gordon L. Robertson, *Good and Bad Packaging: Who Decides?*, 20 INTERNATIONAL JOURNAL OF PHYSICAL DISTRIBUTION & LOGISTICS MANAGEMENT 37 (Jan. 1990).

[470] Jambeck et al., *supra* note 447; Ostle et al., *supra* note 468.

[471] PlasticEurope, *Plastics – the Facts 2017: An Analysis of European Plastics Production, Demand and Waste Data* (PlasticEurope 2018); Geyer et al., *supra* note 446.

[472] Geyer et al., *supra* note 446; See also Jambeck et al., *supra* note 447; Zhe Liu et al., *Are Exports of Recyclables from Developed to Developing Countries Waste Pollution Transfer or Part of the Global Circular Economy?*, 136 RESOURCES, CONSERVATION AND RECYCLING 22 (Sep. 2018); Liang et al., *supra* note 454; Shelby Browning et al., *Addressing the Challenges Associated with Plastic Waste Disposal and Management in Developing Countries*, 32 CURRENT OPINION IN CHEMICAL ENGINEERING 100682 (Jun. 2021).

economic reasons even to countries without adequate facilities and policing infrastructure.[473]

Global plastic waste trade witnessed exponential growth from mid-1990s to early 2010, in response to changing policies in many countries in promoting the reuse and recycle practices to reduce the associated environment impacts of plastic wastes. Yet, similar to many other wastes considered to have risks to human health and the environment, such as electronic wastes, metal scraps, and mixed municipal waste, plastic wastes were often treated not in generating states for the same reason as other exported wastes such as domestic environmental policy, high cost of processing and recycling, rejection from local communities, low demands as raw materials in generating country, and more often than not, following the 'path of least resistance', which made plastic waste as one of the hottest commodities of global waste trade.[474]

During the mid-1990s to early 2010s period, the number of countries participating in the global waste trade networks grew tremendously, from 95 to 186 countries just before 2012.[475] Shipments containing plastic wastes travel far and long journeys from generating states; in early 1990s, global plastic waste trade flows from North America to East Asia (0.1 MMT), Western Europe to North America (0.07 MMT) and Western Europe to Southeast Asia (0.04 MMT).[476] From 1997 to 2012, fueled by the growing domestic demand for plastic raw materials to cope with rapid economic development, China became the biggest importer of plastic waste for recycling, amounted to almost half (44%) of global import of plastic waste, before changes in more stringent import policies started to limit and decrease these imports through Green Fence Policy of vigorous inspection on illegal

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[473] Liang et al., *supra* note 454; Shi et al., *supra* note 454.
[474] KUMMER, *supra* note 18, at 6; Jen Baggs, *International Trade in Hazardous Waste*, 17 REVIEW OF INTERNATIONAL ECONOMICS 1 (2009); Morten W. Ryberg et al., *Global Environmental Losses of Plastics across Their Value Chains*, 151 RESOURCES, CONSERVATION AND RECYCLING 104459 (Dec. 2019); Keisaku Higashida & Shunsuke Managi, *Determinants of Trade in Recyclable Wastes: Evidence from Commodity-Based Trade of Waste and Scrap*, 19 ENVIRONMENT AND DEVELOPMENT ECONOMICS 250 (Apr. 2014).
[475] Shi et al., *supra* note 454.
[476] *Id.* at 189.

waste imports, eventually banning vast types of plastic wastes altogether in 2017 through the enactment of National Sword Policy.[477] China's import ban serves as the disruptive factor in global plastic waste trade, effectively restructuring the global trade network by removing the central node of this import network. Global plastic waste streams temporarily shift import destination to Southeast Asia countries, Chinese Taipei, and Turkey.[478] Thailand, Chinese Taipei, Indonesia and Malaysia had their plastic waste import increased, equivalent to 24% of China's former import capacity.[479] One thing to note is that since the adoption of Plastic Waste Amendment under Basel Convention, Turkey is the only countries to opt-out of this amendment and immediately in 2021 witnessed a surge of plastic waste import from other countries.[480]

Proponents of global waste trades argues that international waste trade destined for recycling might be benefiting in terms of raw materials generated as resources for economic value, and that this new industry might create jobs, facilitating technological transfer and foreign-earned income.[481] But with less than 10% of plastic waste being recycled for raw materials as evidenced earlier, it undermines this practices of cost-externalization of plastic waste from developed countries to developing countries. The fact that only a fraction of plastic waste is being recycled should be an alarming evidence that instead of promoting transboundary movement of plastic waste destined for recycling, implementing the waste minimization in generating states should take precedence. A number of research also argue that long-term environmental and social harm may actually more costly than immediate capital received by importing countries.[482]

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[477] *Id.* at 193.
[478] *Id.*
[479] *Id.* at 195.
[480] See Greenpeace International, *Investigation Finds Plastic from the UK and Germany Illegally Dumped in Turkey*, GREENPEACE, https://www.greenpeace.org/international/press-release/47759/investigation-finds-plastic-from-the-uk-and-germany-illegally-dumped-in-turkey (last visited Jun. 3, 2021); See also Sedat Gündoğdu & Tony R. Walker, *Why Turkey Should Not Import Plastic Waste Pollution from Developed Countries?*, 171 MARINE POLLUTION BULLETIN 112772 (Oct. 2021).
[481] Kitt, *supra* note 76.
[482] Dean M. Poulakidas, *Waste Trade and Disposal in the Americas: The Need for and Benefits of a Regional*

4.1.3 Related global legal instruments

A plethora of international instruments have been developed or adapted to be more equipped in contributing to the global efforts to address the growing global concerns on plastic wastes, marine litters and microplastic, and to minimize its harmful impacts, in addition to the relevant binding instrument of direct relevance to the issue. UNCLOS offers general obligations to the protection and preservation of the marine environment, including pollution from six different sources of marine pollution, including from land-based activities, despite not going into details on types and pollutant and technical rules.[483] Nevertheless, UNCLOS provides member states of obligation either individually or in concert to prevent, reduce, and control pollution from any source (Article 194) and duty not to transfer damage or hazards or transform one type of pollution into another, both directly or indirectly (Article 195), which may well be beneficial in establishing obligation to prevent and reduce plastic wastes since scientific evidences arguing that land-based activities are the biggest source of marine plastic pollutions are abundant.

Another relevant international instruments are the Annex V of MARPOL 73/78, addressing ocean-based litter pollution from ships,[484] and London Protocol addressing waste disposal at sea.[485] Annex V of MARPOL was recently amended in 2011 and provides an updated control framework for wastes generated by ships, imposing a ban of waste discharge from ships, except for few instances provided in regulations 4, 5, and 6 of the Annex (e.g., food wastes, animal carcasses and cargo residues).[486] These instances are related to types of garbage, distances from coast, discharge within and outside special areas,

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Response, 21 VT. L. REV. 873 (1996–1997); Krueger, *supra* note 129.

[483] *Convention on the Law of the Sea*, 1833-1835 UNTS 3 No. 31363 (Nov. 1994), [hereinafter UNCLOS], Art. 192-237; See also S. Palassis, *Marine Pollution and Environmental Law*, *in* AUSTRALIAN COASTAL AND MARINE LAW 228 (R. Baird & Donald R. Rothwell eds., Federation Press Jan. 2011).

[484] *MARPOL 73/78*, [hereinafter MARPOL 73/78].

[485] *1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972*, 1046 UNTS 120 (Jul. 1996), [hereinafter 1996 London Protocol].

[486] Revised Annex V, reg. 4, 5, and 6 of *MARPOL 73/78*.

that is, ocean areas specifically designed where special requirements are obliged to prevent marine pollution by discharged garbage.[487] London Protocol provisions, on the other hand, may well attune with regulations under Annex V MARPOL, since it views discharges regulated under MARPOL 73/78 as normal operations, dealing instead with dumping of wastes and other matter at sea. The protocol was adopted in 1996 to update and eventually replace the 1972 London Convention through special meeting of contracting Parties, agreeing that the Convention needed to shift its focus from controlled dispersal at sea from land-based activities towards controlled sea disposal of few categories strictly regulated under the protocol. The Protocol in essence evolved from regulatory regime to restrictive regime in nature, allowing only materials listed in Annex I of the Protocol after a required permit is obtained.[488] Both of the instruments cover discharges at sea whether from ships operations or dumping at sea, and London Protocol also address land-based activities yet neither specifically address the cycle from which plastic wastes ended up as marine litters.

Beside previous international instruments which cover pollution at sea and ocean discharge/dumping, there are also several international instruments which provide general obligation to protect the marine environments. The UN Watercourse Convention regulates the uses of international watercourses other than navigation and to protect, preserve, and manage the uses of those watercourses and its water.[489] The Convention obliges state members to take all measures to protect and preserve watercourses ecosystems either individually or in concert, of relevance to the issue of marine litters, despite providing only general obligation and does not specifically address plastic waste.[490] CBD provides

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[487] These are sea areas where for recognized technical reasons relating to their oceanographic and ecological condition and the particular character of traffic, such as heavy maritime traffic, low water exchange, extreme ice states, endangered marine species, etc., the adoption of special mandatory methods for the prevention of marine pollution by garbage is required. See Annex V, reg. 1 of *id.*

[488] See Annex I and II of *1996 London Protocol*; See also ELLI LOUKA, INTERNATIONAL ENVIRONMENTAL LAW: FAIRNESS, EFFECTIVENESS, AND WORLD ORDER 148–52 (Cambridge University Press 2006).

[489] *Convention on the Law of the Non-Navigational Uses of International Watercourses*, 2999 UNTS 77 (May 1997), [hereinafter UN Watercourses Convention].

[490] *Id.* Art. 23; See also Karen Raubenheimer et al., *Towards an Improved International Framework to Govern the Life Cycle of Plastics*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 210 (2018); Linda Finska & Julie

obligation to conserve biological diversity, including protection of its environment.[491] The non-binding Decision XIII/10 adopted at COP-13 provides technical guidance "to prevent and mitigate the potential adverse impacts of marine debris on marine and coastal biodiversity and habitats". [492] Yet the guidance includes the conditional "to take appropriate measures, in accordance with national and international law and within their competencies", which would depend on the existing domestic legal rules. The UN Fish Stocks Agreement addresses the conservation and management of straddling and/or highly migratory fish stocks in areas within and beyond national jurisdictions.[493] Article 5(f) provides an obligation to" minimize pollution, waste, discards, catch by lost or abandoned gear" which also includes fishing nets, a type of plastic waste commonly found in the ocean.[494]

In case of plastic waste trade, OECD has an agreement to control the transboundary waste movements destined for recovery operations, which includes plastic waste listed on Part I Appendix III (green category/non-hazardous).[495] This means that plastic wastes are considered non-hazardous thus does not required to undergo strict control procedure which is required for wastes considered hazardous or listed on amber category (Part I Appendix IV). Even after the adoption of Plastic Waste Amendment, OECD countries still haven't reached consensus on how to integrate this development into the OECD's rules.[496] On the other hand, a number of OECD's member states have initiatives intersect with the Plastic

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Gjørtz Howden, *Troubled Waters – Where is the Bridge? Confronting Marine Plastic Pollution from International Watercourses*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 245 (2018).

[491] *Convention on Biological Diversity*, 1760 UNTS 79 (Dec. 1993), [hereinafter CBD].

[492] *XIII/10. Addressing Impacts of Marine Debris and Anthropogenic Underwater Noise on Marine and Coastal Biodiversity*, No. CBD/COP/ DEC/XIII/10, 10 (Dec. 2016).

[493] *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, 2167 UNTS 3 (Dec. 2001), [hereinafter UN Fish Stocks Agreement].

[494] Alessio Montarsolo et al., *Study on the Microplastics Release from Fishing Nets*, 133 EUR. PHYS. J. PLUS No. 11, 494 (Nov. 2018).

[495] Decision of the Council concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations No. C(92)39/FINAL (OECD Council Mar. 30, 1992).

[496] See *OECD Countries Make Partial Progress Updating Rules on International Shipping of Plastic Waste - OECD*, https://www.oecd.org/industry/oecd-countries-make-partial-progress-updating-rules-on-international-shipping-of-plastic-waste.htm (last visited Jun. 4, 2021).

Waste Amendment, such EU's Marine Strategy Framework Directive which was adopted in 2008, requiring EU member states to ensure that, by 2020, properties and quantities of marine litter do not cause harm to the coastal and marine environment.[497]EU also adopted a legally binding regulation in 2019, The Single-use Plastics Directive, to address the issue of marine plastic litters which includes a ban on several types of plastic products, list of minimization of plastic consumption targets, and obligations for producers as well as collection targets based on Extended Producer's Responsibility (EPR).[498] Another example is the new ordinance adopted in January 2022 by Japan's Cabinet obliging businesses to reduce the use of 12 types of disposable plastic items.[499]

As described, there are regulatory and management frameworks addressing plastic waste, marine litter and microplastic. Yet, the problem of plastic waste, marine litter, and microplastic continues to increase worldwide. There exist several intricate reasons for this while a number of legal gaps can also be observed in the current framework which may contribute to the plastic waste problems. First, there are limits in the current legal frameworks. For example, UNCLOS indeed acknowledges land-based activities as one of main sources of pollution at sea, but obliged Parties to address the issue through domestic means.[500] Second, the 'lenient' nature of standards in the provisions leaves flexible interpretation which may differ in each country depending on their social, economic and environmental circumstances and legal systems. In practice. the lenient rules such as "best practical means" or "taking appropriate measures" can be elaborated further through technical guidelines which, despite their non-binding nature, offer guidance on what

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[497] Kie Abe et al., *Arctic Marine Plastic Problem: Potential Collaborative Research Between International Law and Marine Science*, No. ArCS II/Int'l Law/BPS/01/E/EF (Kobe University Feb. 2021).
[498] Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, 32019L0904 115 (2019).
[499] *Japan to Cut Plastic Waste from April via New Cabinet Ordinance*, THE JAPAN TIMES, https://www.japantimes.co.jp/news/2022/01/14/national/plastic-waste-cabinet-ordinance/ (last visited Jun. 15, 2022).
[500] Chung-Ling Chen, *Regulation and Management of Marine Litter*, *in* MARINE ANTHROPOGENIC LITTER 395 (Melanie Bergmann et al. eds., Springer International Publishing 2015).

adequate standards of “practicable steps” should be implemented. Third, while many international instruments oblige states to prevent pollution and protect the environment from it, they do not specifically address the source of such pollution in detail, in this case, the land-based mismanagement of plastic wastes. Many cases of plastic pollution are the end results of plastic as wastes instead of plastic being intentionally and illegally dumped. Therefore, plastic waste reduction and its environmentally sound management are pivotal in addressing the issue. The Basel Convention regime, with its 2019 Plastic Waste Amendment, may provide at least a partial solution to the global plastic waste problems.

The recently adopted Plastic Waste Amendment arguably has put Basel Convention at the forefront of global efforts in addressing plastic wastes, filling partially the gaps in current international legal frameworks, through several potential means. First, the Basel Convention being a formally binding treaty can now specifically address plastic wastes. With the Plastic Waste Amendment, the Basel Convention has become the only global treaty specifically addressing plastic waste issue in the current international society. Second, through its Plastic Waste Amendment, the Basel Convention regime can now address the main source of the problem, that is the plastic wastes from land-based activities, especially from non-environmentally sound management of plastic wastes, including their disposal activities. *Third*, the ESM principle under the Basel Convention may also apply to the *production* of plastic through its waste minimization principle.

4.2 Annex II and its special consideration

Addressing the issue of Plastic Waste Amendment necessitates prior exploration on the nature of Annex II of the Convention as the main umbrella for the amendment. Annex II of the Basel Convention itself is a ‘unique’ annex within the Basel Convention regime. The provision of Annex II is based on Article 1 paragraph 2 of the Basel Convention which stipulates that any waste that belongs in any category set forth in Annex II subject to transboundary movement shall be addressed as “other waste”, establishing a category

distinct from hazardous wastes, yet still under the scope of the Convention. Yet, this uniqueness offers no further elaboration or definition on what it means of "other wastes", albeit only from the title of Annex II that is "waste requiring special consideration".[501] No further elaboration throughout the Convention on what might constitute a 'special consideration'. However, since the "other wastes" are also included in the scope of the Basel Convention through Article 1, it is generally accepted that the notion of 'special consideration' should be interpreted as applicable to all provisions in controlling any other hazardous wastes under the Convention. Some even commented that the term is "purely terminological". Indeed, out of 110 times the term "hazardous wastes" mentioned in the Convention text (not including annexes and Basel Protocol), it is always combined as either "hazardous wastes and other wastes" or "hazardous wastes or other wastes" (100 times), even in provisions related to obligations of Parties. This may indicate that , under the Basel Convention, the same obligations apply to both "hazardous wastes" and "other wastes" without any distinction. Only 10 times "hazardous wastes" is written as a stand-alone term. The stand-alone provision referring only to "hazardous wastes" appears in Article 3 on National Definition of Hazardous Wastes and in Article 4A under the new Ban Amendment which prohibits only the transboundary movements of hazardous wastes from Annex VII countries to non-Annex VII countries.

Prior to Plastic Waste Amendment, there were only two categories listed as waste requiring special consideration on Annex II: Y46 on wastes collected from households or household wastes and Y47 on residues arising from the incineration of household wastes. Household wastes and residues from incineration of such wastes which commonly resulted in fly ash and bottom ash[502] were initially included as hazardous waste during the drafting

[501] See Annex II of *Basel Convention*.
[502] Fly ash and bottom ash as a result from incineration in municipal waste management system are widely considered as having hazardous potential. There was international incident of international shipments containing fly and bottom ash from Philadelphia. See Ping Wang et al., *Municipal Solid Waste (MSW) Incineration Fly Ash as an Important Source of Heavy Metal Pollution in China*, 252 ENVIRONMENTAL POLLUTION 461 (Sep. 2019); Adler, *supra* note 73.

process of the Convention, without an agreement in considering both categories of wastes as definitely hazardous.[503] During the negotiation, some experts argued that household wastes should be considered as hazardous and thus included in the list of Annex I of the Convention on the ground that increasing number of countries were facing difficulties with such waste streams. On the other hand, another expert argued that both household wastes and their incineration residues were not commonly considered as hazardous.[504] Based on this discussion, the technical sub-working group presented options which were either to retain both categories as hazardous waste or to designate them as hazardous under national definition. Yet, reservations and concerns were raised during the final meeting of the negotiation of the Convention by German Democratic Republic, USSR, and Hungary. In particular, the United States objected to the wording of "hazardous" for categorizing both entries, since it might contradict with its domestic regulations.[505] To reach a compromise and clean up brackets before the Conference of Plenipotentiaries, the working group later drafted both categories under new annex of 'special consideration' to be considered as 'other waste', differentiating from the definition of 'hazardous' yet still under the scope of the proposed convention. The term 'special consideration' is purely terminological, since under Article 1 paragraph 2, 'other wastes' would still be a subject of control under the Convention. There is no substantive difference with wastes considered as hazardous and those with "special consideration" regarding their control and management under the Convention.

Thus, it can be argued that designating household wastes and their incineration residues under Annex II was a strategic move by the ad hoc working group to include these wastes under the Convention's control, but without explicitly identifying them as hazardous, so as to respond to many countries' difficulties in properly managing those

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[503] Refer to *Explanatory Notes WG.190*, *supra* note 99.
[504] *Id.* at 3; See also *Amended Annexes*, No. UNEP/WG.190/3/Add.2 (Jan. 1989).
[505] The US was referring to the waste stream as municipal waste. See *Final Report Ad Hoc WG (UNEP/IG.80/4)*, *supra* note 99, ¶ 13; See also *Explanatory Notes WG.190*, *supra* note 99.

household wastes. In fact, although there were reservations and concerns regarding their hazardous nature, most countries were in agreement that those household wastes should also be managed in an environmentally sound manner. At the time of adopting the Basel Convention in 1989, the waste streams constituting such category of wastes were increasing, and a number of countries were facing problems in handling these waste streams. Against this backdrop, it can be argued that the ad hoc working group, applying the precautionary approach despite the lack of evidence of their hazardousness, decided to include household wastes and their incinerated residues under the control scheme of the Convention, allowing its Parties to apply its provisions in the future.

4.3 History and development of plastic waste under Basel Convention

4.3.1 Technical guidelines plastic wastes

The drafting process of Basel Convention in late 1980s did not specifically address plastic wastes as a waste streams with considerable concerns; it was generally included into the household wastes and the wastes resulted from incinerations of household wastes. During the drafting and negotiation process of the Basel Convention, the issue of plastic wastes has yet to become a global concern. As previously observed, the wide usage of plastic wastes would start to take place during mid-1990s, well after Basel Convention went into force. The issue of plastic wastes was first introduced under the Convention when COP-5 in 1999 adopted Decision BC-V/26 on Work programme of the TWG, which mandates TWG, *inter alia*, to prepare technical guidelines on plastics.[506]During the subsequent TWG meetings, there were ensuing debates specifically on PVC plastics. In such debates, the European Commission (EC) introduced PVC management practices, especially in developing countries, which might not constitute environmentally sound management. The EC indicated that a further clarification in this regard would be required, while providing

[506] See Annex to the Decision BC-V/26 on *COP-5 Report (UNEP/CHW.5/29)*, *supra* note 102.

the TWG with its EC Green Paper on the classification and management of plastic wastes.[507] On its 19th meeting in 2002, TWG finalized the draft Technical guidelines for the identification and environmentally sound management of plastic wastes and for their disposal and adopted by COP-6 in 2003 through its decision BC-VI/21.[508]

The technical guidelines comprise of two parts addressing plastic wastes in general and plastic-coated cable scraps.[509] The guidelines acknowledge that the most intractable problem related to plastic wastes is their disposals and that even in developed countries, three quarters of plastic wastes are landfilled despite its unbreakable property, and unsound practices of plastic wastes incinerations both in municipal or in controlled incinerations also raise concerns.[510] Recycling practices might offer a solution, but the document prioritized waste management hierarchy with waste prevention and reduction, including the elimination of impediments and distortions that encourage the *over-production* of plastic wastes. The document also categorized source of plastic wastes from pre-consumer to post-consumer, with the latter (which would also include sources from household) contributed to the majority of plastic wastes generated, amounted to almost 90% of total plastic waste.[511]

4.3.2 Development leading up to the Plastic Waste Amendment

Deliberations under other international institutions, especially UNEA also contribute to the

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[507] Cf. *Report of the Technical Working Group on Its Sixteenth Meeting*, No. UNEP/CHW/TWG/16/12 (Apr. 2000); *Report of The Seventeenth Session of the Technical Working Group*, No. UNEP/CHW/TWG/17/15 (Oct. 2000); *Report of The Eighteenth Session of the Technical Working Group*, No. UNEP/CHW/TWG/18/14 (Jun. 2001); *Report of The Nineteenth Session of the Technical Working Group*, No. UNEP/CHW/TWG/19/13 (Feb. 2002).
[508] See Decision BC-VI/21 annexed on *Report of the Sixth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals*, No. UNEP/CHW.6/40 (Feb. 2003).
[509] Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Wastes and for Their Disposal, No. UNEP/CHW.6/21 (Aug. 23, 2002).
[510] *Id.* at 7.
[511] Technical Guidelines of Plastic Waste (UNEP/CHW.6/21), *supra*; This was also stated by the Secretariat of the Basel Convention in *Report on Possible Options Available under the Basel Convention to Further Address Marine Plastic Litter and Microplastics*, No. UNEP/CHW/OEWG.11/INF/22 (May 2018).

development of plastic waste discourse under Basel Convention. The 1st session of UNEA in 2014 adopted a resolution on marine plastic litters and microplastic, in which the resolution, *inter alia,* stresses the importance of precautionary principle (paragraph 1) and recognizes "the significant risks arising from the inadequate management and disposal of plastic" (paragraph 2).[512] The 2nd session in 2016 also stressed the importance of prevention and environmentally sound management of waste in combating marine plastic litters and microplastics (paragraph 7).[513] Based on these resolutions, COP-13 of the Basel Convention in 2017 adopted decision BC-13/17 on work programme of OEWG for the biennium 2018-2019 which include addressing the issue of marine plastic litters and microplastics and to develop a proposal for further action within the scope of the Convention and *avoiding duplication* with activities undertaken in other forum.[514] Three intentions can be observed from the work programme: 1) that deliberations on plastic wastes was intended to be on the agenda of Basel Convention for subsequent meetings; 2) that it was intended to *fill the gap* of existing international frameworks; and 3) to develop new actions beyond only updating the technical guidelines on environmentally sound management of plastic waste. The decision indicates that there was a growing concern under the Convention that plastic wastes issue has become such a major problem that it needs to be seriously addressed by the Convention.[515]

During the 11th meeting of OEWG in 2018, Government of Norway sent a notification of their proposal to amend Annex IX, removing entry B3010: solid plastic wastes in order to provide more clarity on the regulation of wastes containing plastics.[516]

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[512] Resolution 1/6. Marine plastic debris and microplastics, Res.6, United Nations Environmental Assembly, 1st Sess. (2014).
[513] Resolution 2/11. Marine plastic litter and microplastics, Res.11, United Nations Environmental Assembly, 2d Sess. (2016).
[514] Decision BC-13/17, Annex I, *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Thirteenth Meeting*, No. UNEP/CHW.13/28 (Aug. 2017).
[515] One representative also suggested to review Annex II with regards to discussion on marine plastic waste. See *id.* ¶ 70.
[516] *Application for the Removal of Wastes from Annex IX to the Basel Convention*, No.

Norway argued that the current categorization of B3010 is often used to ship plastic wastes as 'green' waste, that is, non-hazardous waste, and despite many of plastic wastes are non-hazardous, they still require special consideration. This argument was also followed up by a proposal to amend Annex II to add a new entry to cover plastic waste under entry Y48 in order for several types of plastic wastes to be under 'special consideration' instead of being treated as non-hazardous. Norway also proposed an amendment to Annex VIII to include contaminated and mixed plastic wastes, and to Annex IX on sorted, separated, and clean plastic waste.[517] Norway's proposal received wide support from various representatives attending OEWG-11, including its proposed partnership on plastic wastes, and many stressed that "progress in tackling plastic pollution would require strong political will".[518] Consensus was quick to be reached without intense debate and a rally from several representatives to commit to environmentally sound management of plastic wastes in regard to the adopted draft amendment.[519] The session later adopted decision OEWG-11/8 which would propose to the COP-14, *inter alia*, to consider Norway's proposal, a paragraph on recognizing Cartagena Declaration and encourage governments to observe waste prevention and minimization principle.[520]

One of the topics of particular relevance during COP-14 in 2019 was again the Cartagena Declaration, its road map, and principles set out in the declaration as closely linked with the issue of plastic waste addressed during the sessions.[521] Concurrently, Norway's proposal to amend Annex II, VIII, and IX received broad support from representatives attending the COP, with many expressing hope that it would be adopted at

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UNEP/CHW/OEWG.11/14 (Jun. 2018).
[517] Secretariat of the Basel Convention & Norwegian Ministry of Climate and Environment, *supra* note 444.
[518] *Report of the Open-Ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Eleventh Meeting*, No. UNEP/CHW/OEWG.11/15, ¶ 65 (Oct. 2018).
[519] *Id.* ¶¶ 64–66.
[520] Decision OEWG-11/8, annexed on *OEWG-11 Report (UNEP/CHW/OEWG.11/15)*, *supra* note 518.
[521] See generally *COP-14 Report (UNEP/CHW.14/28)*, *supra* note 197.

COP-14.[522] Further consideration was nevertheless required on the proposed new entry B3011 on plastic waste in Annex to replace B3010 on solid plastic waste, the importance of using the life-cycle approach, and the need to extend the scope of the measures to plastic waste on land and in waterways. One representative implicitly indicated its concerns to the proposal by proposing to defer the decision to future COPs. Representative from Argentina and European Union subsequently introduced conference room papers. Argentina proposed to remove any changes to Annex II, while EU proposed changes to the draft decision and the partnership. A contact group was established with a mandate to consider the Annex II, VIII, and IX amendments, taking into account Argentina's and EU's papers, and to prepare a draft decision on amendment and a draft decision on future actions to address plastic waste under the Convention.[523]

Since few concerns were raised during the contact group deliberations as the majority of representatives were already in support of a plastic waste amendment, the contact group's draft decisions were adopted by consensus, on plastic waste amendment (BC-14/12) and future actions to address plastic waste (BC-14/13). Initially, Canada,[524] China,[525] and Turkey[526] notified the Secretariat of Basel Convention that they opted out from accepting the amendment, citing that for purposes of undergoing national legislation process and implementation and will not transpose them into national law for the moment. Canada and China have since retracted their notification, leaving Turkey as the only party member not ratifying the plastic waste amendment.[527]

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[522] Even before Norway's representative addressing the COP, The Governments of the Congo, Japan, Samoa, Switzerland, Togo and Zambia had indicated their desire to co-sponsor the proposals, signaling a broad positive reception on the proposal. See *id.* at 120–22.
[523] *Id.* ¶¶ 124–126.
[524] *Canada: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention* 2 (United Nations Mar. 2020).
[525] *China: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention* 18 (United Nations Mar. 2020).
[526] *Turkey: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention* 2 (United Nations Mar. 2020).
[527] Turkey has since faced serious problem of plastic waste imports, especially from European countries, with UK reportedly exported 40% of its total plastic waste export to Turkey. See Greenpeace International,

4.4 The implications of Plastic Waste Amendment

The newly adopted Plastic Waste Amendment now updated and clarified the obsolete definition of solid plastic waste to be more comprehensive encompassing plastic wastes in need of special consideration (Annex II), plastic waste directly considered as hazardous (Annex VIII), and non-hazardous plastic waste (Annex IX) which would be allowed for transboundary movement destined strictly for recycling. By implication, Basel Convention's prior informed consent mechanism, obligation to ensure environmentally sound management and its constituting principles, strict packaging and labeling, requirements and information required for transboundary movements, the duty to re-import, and duty to participate in international cooperation on addressing the issue would now be applicable to the majority of plastic waste movements. Any transboundary movement of plastic wastes now listed under Annex II and Annex VIII which were previously carried out without strict control from custom and environmental agency would need to undergo stringent procedures and any movements without notification, prior consent, and deliberate disposal would be considered as illegal traffic under Article 9 of the Convention. Despite the Ban Amendment not applicable to the majority of plastic waste listed on the plastic waste amendment (Ban Amendment would only applicable to plastic wastes considered as hazardous under Annex VIII), a Party to the Basel Convention retains its rights to refuse any potential imports of such wastes if it's deemed to be considered as hazardous under its domestic law.

Based on the new amendment, there are unique developments under the Convention. First, Basel Convention's rules are now applicable to a majority of mixture of plastic wastes. Arguably this may be a new approach in assessing waste, as the original Convention's operation is based on the identified waste streams being the common

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supra note 480; Gündoğdu & Walker, *supra* note 480.

approach in determining the applicability of the Convention's rules. For mixture of plastic wastes to be allowed for transport, the plastic waste amendment set out several criteria: 1) only a few type of plastics are allowed;[528] 2) the mixture has to be free from contamination and almost exclusively consisted of such types and free from other types of wastes (which means mixture should consist of plastic wastes only with few of other types of plastic in one mixture); 3) destined for recycling as provisioned under Article 4(9(b) (in case of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET), it should be destined for separate recycling of each material).

Second, it might be argued that, through the adoption of the Plastic Waste Amendment, there emerges a consequent obligation on the part of exporting states to sort out plastic wastes. This sorting out necessity is technically different from ensuring wastes free from contamination. The sorting out of plastic wastes would require exporting states to rigorously differentiate types of plastic wastes when collecting and preparing for the export. As a consequence, it may put pressure on the exporters to conduct stricter separation activities in collecting and in preparing the material to be exported; and/or it may put pressure on the governments to implement stricter waste management policy to ease exporters' burden as an incentive.

Third, this new obligation of pre-export sorting out plastic wastes may put pressures on the exporters and generating states to reduce mixed wastes and put more limitations of plastic waste exports. This increasing pressure to limit the volume of plastic waste exports combined with decreasing number of countries as destinations for their exports would certainly reduce even further the amount of plastic waste exports which is already declining. It is already observable from the recent implications of China's import ban on mixed and contaminated plastics (or dirty plastics), with global trade volume of plastic waste

[528] Such as one non-halogenated polymer, one cured resin or condensation product, several types of fluorinated polymers, and mix of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET).

significantly declined and China's import volume declined to almost zero in 2018.[529] Most of main plastic waste exporters observe a reduction in export volume, with the USA only exported 1.1 MMT of plastic wastes in 2018 and 0.7 MMT in 2019, a decline of 36% and 41% respectively, compared to pre-import ban volume. Japan and South Korea also observed a 0.42 MMT of export in 2018, and for South Korea a further decrease to only 0.034 MMT in 2019, accounting for 17% of the 2017 volume.[530]

However, despite the initial euphoria of the recent development, the new amendment still needs to be further elaborated either through deliberations under Basel Convention or national regulations. At least, two key terms of "almost free from contamination and other types of wastes" and "almost exclusively" are formulated to refer to "international and national specifications may offer a point of reference".[531] Since the Convention does not define these terms, it is up to national governments to set standards through national regulation or referring to currently present international standards. Both options for the governments should respect the spirit of the Convention and should not contravene the Convention's fundamental aim by being too vague or lenient. Nationally formulated contamination standards might be varied and inconsistent between countries and, thus, might complicate the implementation of the amendment both for governments and recycling industries. Such inconsistencies may drive some importing countries to adopt a full ban on plastic wastes, as China did in early 2018. China initially set a full ban on post-consumer plastic waste, and reduced the contamination limit from 1.5% to 0.5% of post-industrial plastic scraps import. But in late 2018, China fully banned the post-industrial plastic imports.[532]

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[529] Shi et al., *supra* note 454, at 196.
[530] *Id.*
[531] Refer to footnote 6 and 7 to the adopted amendment, annexed on *COP-14 Report (UNEP/CHW.14/28)*, *supra* note 197.
[532] GAIA, *Transposing the Basel Convention Plastic Waste Amendments: Challenges & Recommendations* (Nov. 2020).

Reference to international specifications also pose a challenge for implementing the amendment. A majority of available international specifications comes from industry, and designed to be voluntary commercial guidelines to facilitate trade.[533] Thus it is often utilized as a negotiable optional framework instead of a strict rights-obligation frameworks. For example, specification developed by Industry for Scrap and Recycling Industries (ISRI) categorizes recyclable plastic shipments through grade A (6% contaminated), B (7-17% contaminated), and C (18%-28% contaminated). [534] On the other hand, a non-industry specification standards, ISO plastic waste standard EN 15347 does not specify contamination level and only provides categorization framework of plastic wastes, leaving the quality of shipments and interpretation of the notion of "free from contamination" or "almost exclusively" to trading Parties.[535]

4.5 Plastic Waste Amendment as a Catalyst for Regime evolution

4.5.1 Strengthening the ESM Principle: Plastic Waste Amendment

The adoption of plastic waste amendment may establish new obligations for generating states or exporters intending to ship plastic wastes destined for recycling to sort out plastic wastes before any shipment takes place. The obligation might be either carried out by governments through municipal waste management system or privately by exporters in sorting facilities if available. By implication, this potential obligation of waste segregation might constitute another dimension of environmentally sound management standards related to transboundary movement of hazardous waste and other waste under the Basel Convention.

As previously elaborated, ESM principle under the Convention has been argued as

[533] *Id.* at 9.
[534] Institute of Scrap Recycling Industries, *ISRI Scraps Specification Circular 2020* (Mar. 2020).
[535] GAIA, *supra* note 532, at 10.

the foundational principle, encompassing all stages of waste life-cycle from generation, handling, transport (including transboundary movement), disposal, and recycling process which now might include waste segregation after the introduction of plastic waste amendment. If this was the case, then there is a development of what constitute as environmentally sound management in term of life cycle of waste. Prior to Basel, ESM was only applicable from transporting to disposal of wastes, subsequently evolved to include generation as part of whole life cycle which ESM should be applicable.[536] Changes in interpreting the life-cycle of waste is important since Basel Convention had repeatedly reaffirmed that ESM principle should be applicable *throughout* all cycle of life of wastes.[537] While at the time this change is only accepted in regard to plastic waste management, waste segregation as a constituting principle of ESM might be applicable to wastes controlled under the Convention, especially under Annex II entry Y46 on household wastes.

Another important implication of the development and adoption of plastic waste amendment in regard to ESM principle under the Convention is the reaffirmation of waste minimization principle. Thus, in line with obligation of waste minimization set out under Article 4 paragraph 2(a), contracting Parties of the Convention should take all practicable steps to reduce the generation of plastic wastes, *inter alia*, reducing the usage of single-use plastic, and limiting the production of plastic itself. Indeed, there are growing conscience that tackling the plastic issue is not merely recycling plastic after its usage; instead, it is widely advocated to use *less* plastic and limit demands for plastic production.[538] Waste

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[536] See *1981 Montevideo Programme*, *supra* note 121; *Cairo Guidelines (UNEP/GC.14/17)*, *supra* note 125.
[537] Secretariat of the Basel Convention, *supra* note 100; See also Cartagena Declaration on *COP-10 Report (UNEP/CHW.10/28)*, *supra* note 159.
[538] Jenna Jambeck et al., *Challenges and Emerging Solutions to the Land-Based Plastic Waste Issue in Africa*, 96 MARINE POLICY 256 (Oct. 2018); Kumar Raja Vanapalli et al., *Challenges and Strategies for Effective Plastic Waste Management during and Post COVID-19 Pandemic*, 750 SCIENCE OF THE TOTAL ENVIRONMENT 141514 (Jan. 2021); Jiří Jaromír Klemeš et al., *Plastics: Friends or Foes? The Circularity and Plastic Waste Footprint*, 43 ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS 1549 (Jul. 2021).

minimization principle might be becoming more established through its relevance with this plastic reduction movement, and more embedded as a constituting principle of environmentally sound management of waste, at least for plastic waste. Yet, it needs to be taken into consideration that the provisions pertaining to waste minimization and environmentally sound managements are less stringent. The Convention provides no obligation as for indicators, targets, or timelines for waste minimization efforts, and even no mandatory reporting on the implementation of waste minimization since 2016.[539]

It is also generally accepted on the importance of controlling the upstream sector of plastic waste, that is reduction of production of plastic.[540] Pressures to limit production of plastic, instead of only limiting the generation of plastic waste, might become a strategic priority in global effort to tackle plastic waste, marine litters, and microplastic issue. By implication, in term of addressing the plastic waste issue, the scope of application of Basel Convention now may have broadened to extend beyond generation of waste; it may necessitate contracting Parties to address the *production* of substances or objects before such substances or objects becomes a waste (disposed, intended to be disposed, or required to be disposed). If that become the case, the notion of 'waste minimization' might also encompass pre-generation of waste and would be an interesting development, if not considered as evolution, of the Basel Convention.

4.5.2 A broadening scope of the Convention

The Norwegian proposal on the Plastic Waste Amendment was constituted by three distinct

[539] *Possible Options on Marine Plastic Litters Report (UNEP/CHW/OEWG.11/INF/22)*, *supra* note 511, ¶ 23.
[540] Jambeck et al., *supra* note 538; Ana L. Patrício Silva et al., *Rethinking and Optimising Plastic Waste Management under COVID-19 Pandemic: Policy Solutions Based on Redesign and Reduction of Single-Use Plastics and Personal Protective Equipment*, 742 SCIENCE OF THE TOTAL ENVIRONMENT 140565 (Nov. 2020); Klemeš et al., *supra* note 538; See also comments delivered by Secretary General of BRS in *COP-14 Report (UNEP/CHW.14/28)*, *supra* note 197, ¶ 7.

elements within the same proposal:[541] 1) to further clarify the criteria for solid plastic waste in the original entry B3010 of Annex IX to trigger the prior informed procedure, by removing B3010 and inserting the new B3011; 2) to establish a new entry A3210 in Annex VIII for plastic wastes containing or contaminated with Annex I constituents to an extent that they exhibit an Annex III characteristic, clarifying the criteria for plastics wastes to be considered as hazardous; and 3) to establish a new category Y48 to be included in Annex II which will trigger the prior informed consent procedure for that category, according to Article 1 paragraph 2) and Article 6 paragraph 1. This approach of utilizing three distinct annexes (five, if includes Annex I and Annex III to establish hazardous in Annex VIII) to cover one type of wastes is unique and rarely, if ever, employed under Basel Convention. Moreover, throughout the Convention's 30 years of entry into force, it is the first time since the adoption of the Convention that Annex II is revisited and employed to address a new type of wastes that has become a global concern. Further examination into the characteristic and current phenomenon of global plastic wastes reveals the logic behind such approach.

The common properties of plastic wastes do not directly require it to be under the scope of the Convention's regulatory scheme. Most of plastic wastes are arguably not inherently hazardous, unless it changed characteristics through certain processes,[542] and only a fraction is actually having hazardous constituent or exhibiting hazardous characteristics in itself and are considered as hazardous under the Convention's criteria.[543] Yet the categorization of hazardous and non-hazardous through Annex I, III, and VIII, and IX does not directly address the issue of global plastic wastes. As previously mentioned,

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[541] Secretariat of the Basel Convention & Norwegian Ministry of Climate and Environment, *supra* note 444.
[542] It's imperative to state that although not inherently hazardous, it does not mean plastic wastes are not hazardous. Future research and scientific development might prove otherwise. See A. Dick Vethaak & Heather A. Leslie, *Plastic Debris Is a Human Health Issue*, 50 ENVIRON. SCI. TECHNOL. 6825 (Jul. 2016); Samaneh Karbalaei et al., *Occurrence, Sources, Human Health Impacts and Mitigation of Microplastic Pollution*, 25 ENVIRON SCI POLLUT RES 36046 (Dec. 2018); Vethaak & Legler, *supra* note 451.
[543] *Possible Options on Marine Plastic Litters Report (UNEP/CHW/OEWG.11/INF/22)*, *supra* note 511, ¶ 18; Government of Norway, *supra* note 444.

most of plastic wastes generation comes from commercial packaging and other daily life activities, especially single-use plastic which would fall within the definition of "wastes" as elaborated by the Convention. The dilemma between "not inherently hazardous" but "globally problematic" prompted the Norway's proposal (and subsequently general acceptance of contracting Parties) to designate plastic wastes as wastes requiring 'special consideration' under Annex II (Y48), a distinct entry from household wastes and their incinerated residues (Y46 and Y47) to provide more clarity as intended by the proposal. Previously, the plastic wastes could have been considered as a part of household wastes, but inclusion of plastic wastes into this broadly defined household waste would have rendered the amendment ineffective and would not have served its initial aim of further clarifying the wastes. This is corroborated by the OEWG-11 discussions in 2018 which noted the difficulty if plastic wastes were to be included into household wastes category. The report from the discussion stated that "While there are data about the primary uses of plastics by sector, there appear to be very limited data about what amounts of plastic flow into different waste stream – for example, how much plastic used in commercial packaging eventually finds its way into household waste." [544]

The uncertainty is also aggravated by its unsound waste management, especially in developing states without proper waste separation system which necessitates the need to distinct plastic waste from household wastes under Annex II. This can also be justified by the nature of household waste which is commonly mixed and often contaminated so as not to further complicate the environmentally sound management of household wastes.[545] Despite the fact that many plastic wastes do end up as household wastes, the distinct entry

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[544] OEWG also noted the difficulty if plastic waste was to be included into household wastes category, stating that 'While there are data about the primary uses of plastics by sector, there appear to be very limited data about what amounts of plastic flow into different waste stream – for example, how much plastic used in commercial packaging eventually finds its way into household waste.' See *Possible Options on Marine Plastic Litters Report (UNEP/CHW/OEWG.11/INF/22)*, *supra* note 511, ¶ 24.

[545] Jutta Gutberlet & Sayed Mohammad Nazim Uddin, *Household Waste and Health Risks Affecting Waste Pickers and the Environment in Low- and Middle-Income Countries*, 23 INTERNATIONAL JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH 299 (Oct. 2017).

under Annex II may also serve to accommodate the recycling industry's need since the notion of "almost free from contamination" for plastic wastes destined for recycling might facilitate the implementation of waste separation regulation.

Unlike other emerging waste stream such as electronic wastes (e-waste) which contains hazardous parts, the Basel Convention's deliberation on plastic waste is not because it has discernible hazardous properties; but rather its massive and global mismanagement which subsequently drives the increasing risks of plastic wastes generation. The Basel Convention's regulatory scheme does not directly apply to this waste stream, yet addressing the issue is becoming pivotal to ascertain the Convention's adaptability in facing emerging waste issues. This 'relevancy dilemma' in the face of urgent global concern of plastic wastes made the approach to utilize Annex II reasonable and acceptable; it was the only available option to trigger the Convention's regulatory scheme to be applicable and being relevant to the issue. The addition of plastic wastes in Annex II made the Basel Convention regime relevant to the global efforts in addressing the plastic wastes, since waste minimization principle and environmentally sound management principle are especially pertinent to the issue of plastic wastes globally.

This approach of introducing plastic wastes into the scope of the Basel Convention based on the risks of their mismanagement was indeed the first occasion under the Convention's evolution. The Convention's original approach on the inclusion of hazardous wastes under the Convention's control is based on the hazardous waste streams or having hazardous constituents as indicated in Annex I and exhibiting Annex III characteristics. The Plastic Waste Amendment has taken a reverse-logic of including plastic wastes under the Convention's control because of their widespread mismanagement leading to potential hazards on a global scale. This new approach of applying Basel Convention's rules to an emerging type of wastes might or might not become the norm, but it demonstrates an evolution of the Basel Convention regime in uniquely operationalizing Annex II to broaden its scope of control over wastes.

4.6 Conclusion: Adapting to New Challenges

The issue of plastic waste is an emerging global waste problem and is projected to be worsened at least in the next few decades. A number of global legal instruments are applicable, to certain extent, in addressing the issue, including Basel Convention. Despite its 'relevancy dilemma' in how to appropriately address and applying its rules to plastic wastes, Annex II of the Convention which uniquely addresses 'waste requiring special consideration' instead of 'hazardous wastes' provided the necessary means for Basel Convention regime in addressing the issue, since plastic waste generally does not fall within the 'traditional' definition of 'hazardous' under the Convention. By adopting the amendment in 2019 through BC-14/12, Basel Convention's provisions and regulatory scheme are now applicable to the majority of plastic waste. Application of waste minimization principle might also offer a broadening scope of the Convention since plastic wastes are not traditionally considered as hazardous wastes yet still become an urgent issue to be addressed under the Convention. Amendment through Annex II also witnessed a unique approach in the process of plastic waste inclusion under the Convention, which is not because of its intrinsic hazard, but rather its potential mismanagement risks.

CHAPTER 5.

CONCLUSION

The operationalization of the Basel Convention as an international environmental regime has evolved through the Ban Amendment and 2019 Plastic Waste Amendment, in what this study considers as a regime evolution. The point of departure of this concept is Oran Young's conception of regime transformation.[546] However, whereas Young and many IR scholars argue that regime transformation might ultimately leads to regime dissolution, this study diverges on perspective that a change in the regime might actually strengthen the regime and bolster its effectiveness in achieving its aim. This study integrates international legal scholarship's concept on evolutionary characteristics of treaties in explaining the textual changes brought up by the two amendments which leads to the "alterations in a regime's structures of rights and rules". These legal phenomena are similarly observed under the International Convention for the Regulation of Whaling, which was characterized by the International Court of Justice (ICJ) in its 2014 *Whaling in the Antarctic* judgment as "an evolving instrument",[547] precisely because the International Whaling Commission (IWC) under the Convention had adopted several amendments to the Convention (its Schedule). In its 2014 judgment, the ICJ states that "Amendments to the Schedule and recommendations by the IWC may put an emphasis on one or the other objective pursued by the Convention, but cannot alter its object and purpose".[548] In other words, according to the Court, a treaty regime may undergo amendments so as to show its evolutionary character but those amendments cannot alter its object and purpose.[549]

The result of this study found that such evolving characteristics are also exhibited

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[546] Young, *supra* note 16, at 290–91.
[547] Whaling in the Antarctic (Australia v. Japan: New Zealand intervening): Judgment of 31 March 2014, 2014 I.C.J. Reports 226, ¶ 45.
[548] *Id.* ¶ 56.
[549] Shibata, *ICRW as an Evolving Instrument*, *supra* note 49.

under the Basel Convention after the entry into force of the two amendments. These changes significantly alter the operationalization of the Basel Convention, not by decreasing the strict regulatory scheme, but rather introducing new elements and mechanism to the scheme. It establishes a more complex constellation of relationships between member states and as such, it changes the states' behavior by altering how actors under this international regime are obliged to conduct themselves. However, despite how the amendments have changed the operationalization of the Basel Convention, the treaty regime as a whole continues to be founded on its foundational aim of achieving environmentally sound management of hazardous wastes in the international community. As the Basel Convention's object and purpose, the environmentally sound management was further strengthened by the amendments, since the they shifted the focus of its operationalization from regulation of hazardous waste trade to prevention and minimization of waste generation and its transboundary movement, in accordance with the waste hierarchy principle which advocate prevention and minimization before disposal operations. In this sense, the Basel Convention has shown its evolutionary character and has transformed and indeed strengthened as a treaty regime.

As elaborated on Chapter 1, the negotiations leading to the adoption of the Basel Convention and subsequently its texts provide the narrative that the environmentally sound management can be considered as the original aim of the convention. It serves as the convergence of expectations of the Convention, providing a framework within which the normative development and the operationalization of the Basel Convention were pursued accordingly. The original Basel Convention was thus operationalized through a regulatory scheme, that is, an arrangement consisted of specific rules, standards and mechanisms to control the transboundary movements of hazardous wastes and other wastes. This scheme rests its restrictive nature upon the prior informed consent (PIC), which require any State of Export to acquire a written consent from State of Transit and State of Import before any proposed transboundary movement of hazardous waste is allowed. It also includes a

'limited ban', prohibiting any transboundary movement from Party States to non-Party, unless both Parties have an agreement in accordance with the requirements set under Article 11.

However, this study finds that the entry into force of Ban Amendment (Chapter 3) and Plastic Waste Amendment (Chapter 4) have significantly change the operationalization of the Basel Convention to an extent in can be considered as evolved. Chapter 3 has illustrated the Ban Amendment's contribution which can be observed from three changes. First, the introduction of prevention principle as an additional context in operationalizing the environmentally sound management. This principle is now applicable in relations to the transboundary movement from Annex VII countries to non-Annex VII countries through the introduction of 'high risk' in the Ban Amendment's preambular paragraph. It entails an understanding that in case of transboundary movement of hazardous waste to developing countries, preventive consideration takes precedence in the face of a potential high risk. This also applies to hazardous wastes destined for recycling and recovery operations.

Second, changes in rules of the Convention by introducing the obligation to prohibit export to non-Annex VII for ratifying Annex VII member states as mandated in Article 4A(1) and 4A(2), which immediately in effect after the entry into force since the phase out period in Article 4A(2) has ended after 31 December 1997. Competent authorities in Annex VII countries are now required to observe the memberships of Annex VII in determining a proposed transboundary movements and to prohibit such movement if the potential importing state is not listed under Annex VII. It exhibits a change in the operationalization of the PIC mechanism which previously rely on the consideration of environmentally sound management. Now, the consideration on ESM is not required since preambular paragraph of Ban Amendment automatically assumes all transboundary movement of hazardous wastes to developing countries constitute a high risk of not being managed in an environmentally sound manner.

Third, changes in the operation which can be observed from three aspect: the establishment of the North-South total ban mechanism, the change from bilateral to catch-all mechanism using Annex VII, and the stricter implementation of the Article 11 in regards to proposed transboundary movement between Parties to the Convention and Non-Party. The addition of the North-South total ban mechanism to the regulatory scheme of the Basel Convention has prompted the regulatory scheme to be consisted of two mechanism: one is restriction with limited ban which is based on the PIC mechanism, and the other one is a prohibition mechanism based on the concept of North-South total ban of transboundary movement of hazardous wastes. It creates a complex constellation of relationship for member states and also non-party which can be observed through a condition: 1) between Parties to both the Basel Convention and its Ban Amendment; 2) when the proposed transboundary movement of hazardous waste is between a ratifying party to the Ban Amendment and a non-ratifying party of the Ban Amendment; and 3) between a ratifying party to Ban Amendment and a non-party to the Basel Convention.

The second change in operation is the shift of approach from bilateral agreement under PIC mechanism to be catch-all approach of banning transboundary movements based on Annex VII membership. The original regime mandates that any transboundary movement of hazardous wastes strictly adhere to the bilateral process of written notification and written consent between State of Export and State of Import (including State of Transit, if any). With the entry into force of Ban Amendment, this bilateral mechanism is only obliged to movements between Annex VII countries, between non-Annex VII countries, and from non-Annex VII countries to Annex VII countries, and between non-ratifying Party members.

The third change in operations relates to the addition of prevention principle through the preambular paragraph of the Ban Amendment. As argued, it requires a stricter interpretation of environmentally sound management of hazardous wastes. This stricter interpretation of ESM may arguably only apply to any transboundary movement which

involve at least one party of the Convention ratifying the Ban Amendment and subsequently has an implication to the operationalization of Article 11 under the Convention. Hence, while the ordinary interpretation and applicability of Article 11 would be stricter, transboundary movement of hazardous wastes under the limited ban mechanism adhering to the provisions of Article 11 only applies to between Annex VII Non-Party to Basel Convention and non-Annex VII party to Basel not ratifying the Ban Amendment or between Annex VII countries in which one of them is not a party to the Basel Convention

In Chapter 4, this study found that despite its 'relevancy dilemma' in how to appropriately address and applying its rules to plastic waste, the Basel Convention is equipped in adapting to new emerging waste issues of plastic wastes, which does not generally fall within the 'traditional' definition of 'hazardous' under the Convention. This adaptation comes in the form of utilizing Annex II of the Convention which uniquely addresses 'waste requiring special consideration' and provides the necessary means for Basel Convention in addressing the issue. Application of waste minimization principle might indicate a broadening scope of the Convention in addressing urgent waste issues not traditionally considered as hazardous under the Convention's provisions by utilizing Annex II.

The initial position of this research was to ask whether the Basel Convention have undergone a regime evolution after 30 years of development. As this study have elaborated and argued, the Basel Convention regime has indeed evolved through its operationalization and the strengthening of environmentally sound management as the original aim of the Convention. This study's proposal on the definition of regime evolution as a different concept from regime transformation, and argues that international regime change does not necessarily end in either dissolution of a regime or a transformation into a new one. Furthermore, as this study have argued, the Basel Convention's evolutionary characteristics can be observed, suggesting that a regime evolution has indeed occurred. It significantly changed the operationalization of the Convention without changing the

original aim of the Basel Convention regime to achieve environmentally sound management of transboundary movement of hazardous wastes.

This study suggest that a future prospective research topic would be to follow the development of Annex VII including what this study defines as a delegation of mechanism of Annex VII, in which the enlargement of Annex VII membership happened outside the Basel Convention regime. This delegation renders the Basel Convention to not have control over the membership of Annex VII and have the risk to render the Ban Amendment as ineffective. Also, further analysis on the plastic waste issue under the Basel Convention is required, particularly with the recent development under United Nations Environmental Assembly which mandated for a negotiation on a global plastic treaty addressing the whole life cycle of plastic. On the other hand, the broadening scope of the Basel Convention through the Plastic Waste Amendment might provide incentives for the Basel Convention to further utilize the Annex II. As of May 2022, there is indeed a proposal for COP-15 to negotiate the inclusion of a number of electronic waste (e-waste) into Annex II list. Assuming that this proposal was adopted by the COP-15, it may seem that the Basel Convention as a treaty regime have found a solution in regard to its relevance dilemma, that is, by utilizing Annex II to address wastes that are not categorized as hazardous under the Convention but pose risk of harm to human health and the environment because of its unsound management practices thus requiring its generation and transboundary movement of those wastes to be minimized and safely controlled under the PIC mechanism.

REFERENCES

Book

Barboza, Julio, The Environment, Risk and Liability in International Law (Martinus Nijhoff Publishers 2011).

Bodansky, Daniel, The Art and Craft of International Environmental Law (Harvard University Press 2010).

Breitmeier, Helmut, et al., Analyzing International Environmental Regimes: From Case Study to Database (The MIT Press 2006).

Clapp, Jennifer, Toxic Exports: The Transfer of Hazardous Wastes and Technologies from Rich to Poor Countries (Cornell University Press 2001).

Cabus, Tony, Due Diligence and the High Seas. (Routledge 2022)

Delreux, Tom & Sander Happaerts, Environmental Policy and Politics in the European Union (Palgrave Mar. 2016).

Dupuy, Pierre-Marie & Jorge E. Viñuales, International Environmental Law (Cambridge University Press 2nd ed. 2015).

Duvic-Paoli, Leslie-Anne, The Prevention Principle in International Environmental Law (Cambridge University Press 1st ed. May 2018).

Gehring, Thomas, Dynamic International Regimes: Institutions for International Environmental Governance (Lang 1994).

Haas, Ernst B., When Knowledge Is Power (University of California Press 1990).

Keohane, Robert O., After Hegemony: Cooperation and Discord in the World Political Economy (Princeton University Press 1984).

Kiss, Alexandre & Dinah Shelton, International Environmental Law (Transnational Publishers 1991).

Kiss, Alexandre & Dinah Shelton, Guide to International Environmental Law (Leiden: Martinus Nijhoff Publishers 2007).

Krasner, Stephen D., International Regimes (Cornell University Press 1983).

Kummer, Katharina, International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules (Clarendon Press 1995).

Lang, Winfried, et al., Environmental Protection and International Law (Graham & Trotman 1991).

Lim, Chin L. & Olufemi A. Elias, The Paradox of Consensualism in International Law (Brill Nijhoff 1998).

Louka, Elli, International Environmental Law: Fairness, Effectiveness, and World Order (Cambridge University Press 2006).

Mbengue, Makane Moïse, Essai sur une théorie du risque en droit international public. L'anticipation du risque environnemental et sanitaire (Pedone 2009).

Meinke, Britta, Multi-Regime-Regulierung: Wechselwirkungen zwischen globalen und

regionalen Umweltregimen (Deutscher Universitätsverlag 2002).

Mondré, Aletta, Forum Shopping in International Disputes (Palgrave Macmillan UK 2015).

Nellemann, Christian, et al. eds., The Rise of Environmental Crime: A Growing Threat to Natural Resources, Peace, Development and Security (United Nations Environment Programme 2016).

Pellow, David N., Resisting Global Toxics: Transnational Movements for Environmental Justice (The MIT Press 2007).

Pospíšil, Leopold J., Anthropology of Law: A Comparative Theory (Harper & Row 1971).

Rucevska, Ieva, et al., Waste Crime - Waste Risks: Gaps in Meeting the Global Waste Challenge (United Nations Environment Programme and GRID-Arendal 2015).

de Sadeleer, Nicolas, Environmental Principles: From Political Slogans to Legal Rules (Oxford University Press 2nd ed. ed. 2020).

Sands, Philippe, et al., Principles of International Environmental Law (Cambridge University Press 4th ed. Mar. 2018).

Schiele, Simone, Evolution of International Environmental Regimes: The Case of Climate Change (Cambridge University Press 2014).

Schrijver, Nico, Sovereignty over Natural Resources: Balancing Rights and Duties (Cambridge University Press 1997).

Sinclair, Adriana, International Relations Theory and International Law: A Critical Approach (Cambridge University Press 2010).

Susskind, Lawrence E. & Saleem H. Ali, Environmental Diplomacy: Negotiating More Effective Global Agreements (Oxford University Press Second ed. 2015).

Tolba, Mostafa K. & Iwona Rummel-Bulska, Global Environmental Diplomacy: Negotiating Environmental Agreements for the World, 1973-1992 (The MIT Press 1998).

Young, Margaret A., ed. ‚Regime Interaction in International Law: Facing Fragmentation (Cambridge University Press 2012).

Book Chapter

Barral, Virginie, *National Sovereignty over Natural Resources: Environmental Challenges and Sustainable Development*, *in* RESEARCH HANDBOOK ON INTERNATIONAL LAW AND NATURAL RESOURCES 3 (Elisa Morgera & Kati Kulovesi eds., Edward Elgar Publishing Nov. 2016).

Berner, Katharina, *The Notion of 'Agreement,' in* SUBSEQUENT AGREEMENTS AND SUBSEQUENT PRACTICE IN DOMESTIC COURTS 241 (Katharina Berner ed., Springer 2017).

Bodansky, Daniel, *Legally Binding versus Non-Legally Binding Instruments*, *in* TOWARDS A WORKABLE AND EFFECTIVE CLIMATE REGIME 155 (Scott Barrett et al. eds., CEPR Press Aug. 2015).

Brunnée, Jutta & Stephen J. Toope, *Constructivism and International Law*, *in* INTERDISCIPLINARY PERSPECTIVES ON INTERNATIONAL LAW AND INTERNATIONAL RELATIONS: THE STATE OF THE ART 119 (Jeffrey L. Dunoff & Mark A. Pollack eds.,

Cambridge University Press 2012).

Chen, Chung-Ling, *Regulation and Management of Marine Litter*, *in* MARINE ANTHROPOGENIC LITTER 395 (Melanie Bergmann et al. eds., Springer International Publishing 2015).

Danish, Kyle W., *International Relations Theory*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW (Daniel Bodansky et al. eds., Oxford University Press Aug. 2008).

Delreux, Tom, *Multilateral Environmental Agreements: A Key Instrument of Global Environmental Governance*, *in* EUROPEAN UNION EXTERNAL ENVIRONMENTAL POLICY: RULES, REGULATION AND GOVERNANCE BEYOND BORDERS 19 (Camilla Adelle et al. eds., Springer International Publishing 2018).

Ebbesson, Jonas, *Public Participation*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 682 (Daniel Bodansky et al. eds., Oxford University Press 2008).

Gonzalez, Carmen G., *Environmental Justice and International Environmental Law*, *in* ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW (Shawkat Alam et al. eds., Feb. 2012).

Harada, Masazumi, *The Global Lessons of Minamata Disease: An Introduction to Minamata Studies*, *in* TAKING LIFE AND DEATH SERIOUSLY - BIOETHICS FROM JAPAN 299 (Takao Takahashi ed., Emerald Group Publishing Limited 2005).

Hurrell, Andrew, *International Society and the Study of Regimes: A Reflective Approach*, *in* REGIME THEORY AND INTERNATIONAL RELATIONS 49 (Volker Rittberger ed., Clarendon Press 1993).

Katzenstein, Peter J., *1. Introduction: Alternative Perspectives on National Security*, *in* THE CULTURE OF NATIONAL SECURITY: NORMS AND IDENTITY IN WORLD POLITICS 27 (Peter J. Katzenstein ed., Columbia University Press Oct. 1996).

Kohler, Juliette Voïnov, *A Paradigm Shift under the Basel Convention on Hazardous Wastes*, *in* WASTE MANAGEMENT AND THE GREEN ECONOMY 80 (Katharina Kummer Peiry et al. eds., Edward Elgar Publishing 2016).

Krueger, Jonathan, *The Basel Convention and the International Waste Trade in Hazardous Waste*, *in* YEARBOOK OF INTERNATIONAL COOPERATION ON ENVIRONMENT AND DEVELOPMENT 2001-2002, 43 (Olav Schram Stokke & Øystein B. Thommessen eds., Earthscan Publications 2001).

Lang, Winfried, *Regimes and Organizations in the Labyrinth of International Institutions*, *in* VÖLKERRECHT ZWISCHEN NORMATIVEM ANSPRUCH UND POLITISCHER REALITÄT: FESTSCHRIFT FÜR KARL ZEMANEK ZUM 65. GEBURTSTAG 275 (Konrad Ginther et al. eds., Duncker & Humblot 1994).

Lasut, Markus T., et al., *From Coral Triangle to Trash Triangle—How the Hot Spot of Global Marine Biodiversity Is Threatened by Plastic Waste*, Proceedings of the International Conference on Microplastic Pollution in the Mediterranean Sea 107 (Mariacristina Cocca et al. eds., Springer International Publishing 2018).

McCrudden, Christopher, *Judicial Comparativism and Human Rights*, *in* COMPARATIVE LAW: A HANDBOOK 371 (Esin Örücü & David Nelken eds., Nov. 2007).

Palassis, S., *Marine Pollution and Environmental Law*, *in* AUSTRALIAN COASTAL AND

MARINE LAW 228 (R. Baird & Donald R. Rothwell eds., Federation Press Jan. 2011).

Portas, Pierre, *Recycling and Resource Recovery under the Basel Convention: Historical Analysis and Outlook*, *in* WASTE MANAGEMENT AND THE GREEN ECONOMY 246 (Katharina Kummer Peiry et al. eds., Edward Elgar Publishing 2016).

Rummel-Bulska, Iwona, *The Basel Convention and Its Implementation*, *in* SOLID WASTE: ASSESSMENT, MONITORING AND REMEDIATION 133 (Irena Twardowska et al. eds., Elsevier B.V. 2004).

Shibata, Akiho, *Ensuring Compliance with the Basel Convention - Its Unique Features*, *in* ENSURING COMPLIANCE WITH MULTILATERAL ENVIRONMENTAL AGREEMENTS: A DIALOGUE BETWEEN PRACTITIONERS AND ACADEMIA 69 (Ulrich Beyerlin et al. eds., Martinus-Nijhoff 2006).

Journal Article

Abbasi, Sajjad, et al., *Distribution and Potential Health Impacts of Microplastics and Microrubbers in Air and Street Dusts from Asaluyeh County, Iran*, 244 ENVIRONMENTAL POLLUTION 153 (Jan. 2019).

Abrams, David J., *Regulating the International Hazardous Waste Trade: A Proposed Global Solution Note*, 28 COLUM. J. TRANSNAT'L L. 801 (1990).

Adler, Emanuel & Peter M. Haas, *Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program*, 46 INTERNATIONAL ORGANIZATION 367 (1992).

Adler, Julienne I., *United States' Waste Export Control Program: Burying Our Neighbors in Garbage Comment*, 40 AM. U. L. REV. 885 (1991).

Adler, Matthew D., *Risk, Death and Harm: The Normative Foundations of Risk Regulation*, 87 MINN. L. REV. 1293 (2002).

Ajibo, Kenneth I., *Transboundary Hazardous Wastes and Environmental Justice: Implications for Economically Developing Countries*, 18 ENVIRONMENTAL LAW REVIEW 267 (Dec. 2016).

Alter, Harvey, *Environmentally Sound Management of the Recycling of Hazardous Wastes in the Context of the Basel Convention*, 29 RESOURCES, CONSERVATION AND RECYCLING 111 (May 2000).

Andrady, Anthony L., *The Plastic in Microplastics: A Review*, 119 MARINE POLLUTION BULLETIN 12 (Jun. 2017).

Andrews, Alan, *Beyond the Ban - Can the Basel Convention Adequately Safeguard the Interests of the World's Poor in the International Trade of Hazardous Waste*, 5 LAW ENV'T & DEV. J. 169 (2009).

Anyinam, Charles A., *Transboundary Movements of Hazardous Wastes: The Case of Toxic Waste Dumping in Africa*, 21 INT J HEALTH SERV 759 (Oct. 1991).

Armstrong, Chris, *Against 'Permanent Sovereignty' over Natural Resources*, 14 POLITICS, PHILOSOPHY & ECONOMICS 129 (May 2015).

Baggs, Jen, *International Trade in Hazardous Waste*, 17 REVIEW OF INTERNATIONAL ECONOMICS 1 (2009).

Barboza, Luís Gabriel Antão, et al., *Marine Microplastic Debris: An Emerging Issue for Food Security, Food Safety and Human Health*, 133 MARINE POLLUTION BULLETIN 336 (Aug. 2018).

Barnes, David K. A., *Invasions by Marine Life on Plastic Debris*, 416 NATURE 808 (Apr. 2002).

Barsalou, Olivier & Michael Hennessy Picard, *International Environmental Law in an Era of Globalized Waste*, 17 CHINESE JOURNAL OF INTERNATIONAL LAW 887 (2018).

Bergmann, Melanie, et al., *Sea Change for Plastic Pollution*, 544 NATURE 297 (Apr. 2017).

Bodansky, Daniel, *Law: Scientific Uncertainty and the Precautionary Principle*, 33 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 4 (Sep. 1991).

Bodansky, Daniel, *Customary (And Not So Customary) International Environmental Law*, 3 INDIANA JOURNAL OF GLOBAL LEGAL STUDIES 105 (1995).

Browning, Shelby, et al., *Addressing the Challenges Associated with Plastic Waste Disposal and Management in Developing Countries*, 32 CURRENT OPINION IN CHEMICAL ENGINEERING 100682 (Jun. 2021).

Brunnée, Jutta, *COPing with Consent: Law-Making Under Multilateral Environmental Agreements*, 15 LJIL 1 (2002).

Brunnée, Jutta & Stephen J. Toope, *International Law and Constructivism: Elements of an Interactional Theory of International Law*, 39 COLUM. J. TRANSNAT'L L. 19 (2000).

Cairns, John W., *Watson, Walton, and the History of Legal Transplants*, 41 GA. J. INT'L & COMP. L. 637 (2012–2013).

Cameron, James & Juli Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B. C. INT'L & COMP. L. REV. 1 (1991).

Castelvetro, Valter, et al., *Microplastics in Fish Meal: Contamination Level Analyzed by Polymer Type, Including Polyester (PET), Polyolefins, and Polystyrene*, 273 ENVIRONMENTAL POLLUTION 115792 (Mar. 2021).

Chaaban, Moustafa A., *Hazardous Waste Source Reduction in Materials and Processing Technologies*, 119 JOURNAL OF MATERIALS PROCESSING TECHNOLOGY 336 (Dec. 2001).

Chen, Guanglong, et al., *Occurrence and Ecological Impact of Microplastics in Aquaculture Ecosystems*, 274 CHEMOSPHERE 129989 (Jul. 2021).

Chiba, Sanae, et al., *Human Footprint in the Abyss: 30 Year Records of Deep-Sea Plastic Debris*, 96 MARINE POLICY 204 (Oct. 2018).

Chodosh, Hiram E., *Neither Treaty nor Custom: The Emergence of Declarative International Law*, 26 TEX. INT'L L. J. 87 (1991).

Churchill, Robin R. & Geir Ulfstein, *Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law*, 94 AMERICAN JOURNAL OF INTERNATIONAL LAW 623 (Oct. 2000).

Clapp, Jennifer, *Africa, NGOs, and the International Toxic Waste Trade*, 3 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 17 (Jun. 1994).

Clapp, Jennifer, *The Toxic Waste Trade with Less-industrialised Countries: Economic Linkages and Political Alliances*, 15 THIRD WORLD QUARTERLY 505 (Sep. 1994).

Cox, Gary, *The Trafigura Case and the System of Prior Informed Consent under the Basel Convention - A Broken System*, 6 LAW ENV'T & DEV. J. 265 (2010).

Crawford, Beverly & Stefanie Lenway, *Decision Modes and International Regime Change: Western Collaboration on East-West Trade*, 37 WORLD POLITICS 375 (Cambridge University Press Apr. 1985).

Cusack, Marguerite M., *International Law and the Transboundary Shipment of Hazardous Waste to the Third World: Will the Basel Convention Make a Difference?*, 5 AM. U. J. INT'L L. & POL'Y 393 (1989–1990).

Dauvergne, Peter, *The Power of Environmental Norms: Marine Plastic Pollution and the Politics of Microbeads*, 27 ENV. POL. 579 (Jul. 2018).

Dear, Michael, *Understanding and Overcoming the NIMBY Syndrome*, 58 JOURNAL OF THE AMERICAN PLANNING ASSOCIATION 288 (Sep. 1992).

Derraik, José G. B., *The Pollution of the Marine Environment by Plastic Debris: A Review*, 44 MARINE POLLUTION BULLETIN 842 (Sep. 2002).

Donohue, Mary J., et al., *Derelict Fishing Gear in the Northwestern Hawaiian Islands: Diving Surveys and Debris Removal in 1999 Confirm Threat to Coral Reef Ecosystems*, 42 MARINE POLLUTION BULLETIN 1301 (Dec. 2001).

Duvic-Paoli, Leslie-Anne. *Fighting Plastics with Environmental Principles? The Relevance of the Prevention Principle in the Global Governance of Plastics*, 114 AJIL Unbound 195 (2020)

Eriksen, Marcus, et al., *Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea*, 9 PLOS ONE e111913 (Dec. 2014).

Esty, Daniel C., *GATTing the Greens: Not Just Greening the GATT*, 72 FOREIGN AFFAIRS 32 (1993).

Fidler, David P., *Challenging the Classical Concept of Custom: Perspectives on the Future of Customary International Law*, 39 GERMAN Y.B. INT'L L. 198 (1996).

Finkelstein, Claire, *Is Risk a Harm?*, 151 U. PA. L. REV. 963 (2002–2003).

Finnemore, Martha, *Norms, Culture, and World Politics: Insights from Sociology's Institutionalism*, 50 INTERNATIONAL ORGANIZATION 325 (1996).

Finnemore, Martha & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 INTERNATIONAL ORGANIZATION 887 (1998).

Finska, Linda & Julie Gjørtz Howden, *Troubled Waters – Where is the Bridge? Confronting Marine Plastic Pollution from International Watercourses*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 245 (2018).

Fullem, Gregory, *Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty Comment*, 31 WILLAMETTE L. REV. 495 (1995).

Funabashi, Harutoshi, *Minamata Disease and Environmental Governance*, 15 INTERNATIONAL JOURNAL OF JAPANESE SOCIOLOGY 7 (2006).

Gasperi, Johnny, et al., *Microplastics in Air: Are We Breathing It In?*, 1 CURRENT OPINION

IN ENVIRONMENTAL SCIENCE & HEALTH 1 (Feb. 2018).

Gehring, Thomas, *International Environmental Regimes: Dynamic Sectoral Legal Systems*, 1 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 35 (Dec. 1990).

Gelpi, Christopher, *Crime and Punishment: The Role of Norms in Crisis Bargaining*, 91 AMERICAN POLITICAL SCIENCE REVIEW 339 (Jun. 1997).

Gereffi, Gary, *Global Value Chains in a Post-Washington Consensus World*, 21 REVIEW OF INTERNATIONAL POLITICAL ECONOMY 9 (Routledge Jan. 2014).

Gess, Karol N., *Permanent Sovereignty over Natural Resources*, 13 INT'L & COMP. L.Q. 398 (1964).

Geyer, Roland et al., *Production, Use, and Fate of All Plastics Ever Made*, 3 SCIENCE ADVANCES e1700782 (Jul. 2017).

Gillespie, Alexander, *Forum Shopping in International Environmental Law: The IWC, CITES, and the Management of Cetaceans*, 33 OCEAN DEVELOPMENT & INTERNATIONAL LAW 17 (Jan. 2002).

Glavič, Peter & Rebeka Lukman, *Review of Sustainability Terms and Their Definitions*, 15 JOURNAL OF CLEANER PRODUCTION 1875 (Dec. 2007).

Gregson, Nicky & Mike Crang, *From Waste to Resource: The Trade in Wastes and Global Recycling Economies*, 40 ANNUAL REVIEW OF ENVIRONMENT AND RESOURCES 151 (Annual Reviews Nov. 2015).

Gudofsky, Jason L., *Transboundary Shipments of Hazardous Waste for Recycling and Recovery Operations*, 34 STAN. J. INT'L L. 219 (1998).

Gündoğdu, Sedat & Tony R. Walker, *Why Turkey Should Not Import Plastic Waste Pollution from Developed Countries?*, 171 MARINE POLLUTION BULLETIN 112772 (Oct. 2021).

Gutberlet, Jutta & Sayed Mohammad Nazim Uddin, *Household Waste and Health Risks Affecting Waste Pickers and the Environment in Low- and Middle-Income Countries*, 23 INTERNATIONAL JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HEALTH 299 (Oct. 2017).

Gwam, Cyril Uchenna, *Travaux Preparatoires of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 18 J. NAT. RESOURCES & ENVTL. L. 1 (2003).

Hafner, Gerhard, *Pros and Cons Ensuing from Fragmentation of International Law Diversity or Cacophony: New Sources of Norms in International Law Symposium*, 25 MICH. J. INT'L L. 849 (2003–2004).

Hägerdal, Nils, *Toxic Waste Dumping in Conflict Zones: Evidence from 1980s Lebanon*, MEDITERRANEAN POLITICS 1 (Nov. 2019).

Haggard, Stephan & Beth A. Simmons, *Theories of International Regimes*, 41 INTERNATIONAL ORGANIZATION 491 (1987).

Handl, Günther, *Environmental Security and Global Change: The Challenge to International Law*, 1 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 3 (1990).

Hasenclever, Andreas et al., *Integrating Theories of International Regimes*, 26 REVIEW OF INTERNATIONAL STUDIES 3 (Jan. 2000).

He, Defu et al., *Microplastics in Soils: Analytical Methods, Pollution Characteristics and Ecological Risks*, 109 TRAC TRENDS IN ANALYTICAL CHEMISTRY 163 (Dec. 2018).

Hey, Ellen, *Sustainable Development, Normative Development and the Legitimacy of Decision-Making*, 34 NETHERLANDS YEARBOOK OF INTERNATIONAL LAW 3 (Dec. 2003).

Higashida, Keisaku, *Trade in Secondhand Goods and Recyclable Materials, Monitoring of Illegal Trade, and Import Quotas on Legal Trade*, 23 THE INTERNATIONAL ECONOMY 195 (2020).

Higashida, Keisaku & Shunsuke Managi, *Determinants of Trade in Recyclable Wastes: Evidence from Commodity-Based Trade of Waste and Scrap*, 19 ENVIRONMENT AND DEVELOPMENT ECONOMICS 250 (Apr. 2014).

Hoffmann, Ulrich & Wilson, Brian, *Requirements for, and Benefits of, Environmentally Sound and Economically Viable Management of Battery Recycling in the Philippines in the Wake of Basel Convention Trade Restrictions*, 88 JOURNAL OF POWER SOURCES 115 (May 2000).

Hofmann, Stephanie C., *The Politics of Overlapping Organizations: Hostage-Taking, Forum-Shopping and Brokering*, 26 JOURNAL OF EUROPEAN PUBLIC POLICY 883 (Jun. 2019).

Honda, Shunichi, *Environmentally Sound Management of E-Waste - Relationship between Environmentally Sound Management and Transboundary Movements*, 878 ADVANCED MATERIALS RESEARCH 380 (Jan. 2014).

Hori, Shiro, *The Evolution of International Environmental Regimes: Responding to the Difficulty of Effective Implementation in Developing Countries*, 25 THE WASEDA JOURNAL OF SOCIAL SCIENCE 113 (2015).

Hunter, Susan & Kevin M. Leyden, *Beyond NIMBY: Explaining Opposition to Hazardous Waste Facilities*, 23 POLICY STUDIES JOURNAL 601 (1995).

International Law Commission, *Commentary on the Final Draft Articles on the Law of Treaties*, II YEARBOOK OF THE ILC 204 (1966).

Jacobson, Harold K. & Edith Brown Weiss, *Strengthening Compliance with International Environmental Accords: Preliminary Observations from a Collaborative Project*, 1 GLOBAL GOVERNANCE 119 (1995).

Jambeck, Jenna et al., *Challenges and Emerging Solutions to the Land-Based Plastic Waste Issue in Africa*, 96 MARINE POLICY 256 (Oct. 2018).

Jambeck, Jenna R., et al., *Plastic Waste Inputs from Land into the Ocean*, 347 SCIENCE 768 (Feb. 2015).

Jones, Madelaine M., *Fishing Debris in the Australian Marine Environment*, 30 MARINE POLLUTION BULLETIN 25 (Jan. 1995).

Jones, Wordsworth Filo, *The Evolution of the Bamako Convention: An African Perspective*, 4 COLO. J. INT'L ENVTL. L. & POL'Y 324 (1993).

Kamigawara, Kenji, *Comparative Typological Study of Change in Global Environmental Regimes*, 15 INT ENVIRON AGREEMENTS 179 (2015).

Kaminsky, Howard S., *Assessment of the Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous*

Wastes within Africa Recent Development, 5 GEO. INT'L ENVTL. L. REV. 77 (1992–1993).

Karbalaei, Samaneh, et al., *Occurrence, Sources, Human Health Impacts and Mitigation of Microplastic Pollution*, 25 ENVIRON SCI POLLUT RES 36046 (Dec. 2018).

Katz, Jane, *What a Waste: The Generation and Disposal of Trash Imposes Costs on Society and the Environment: Should We Be Doing More?*, 12 REGIONAL REVIEW 22 (2002).

Kempel, William, *The Negotiations on the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal: A National Delegation Perspective*, 4 INTERNATIONAL NEGOTIATION 413 (1999).

Keohane, Robert O., *The Demand for International Regimes*, 36 INTERNATIONAL ORGANIZATION 325 (1982).

Khan, Sabaa Ahmad, *Clearly Hazardous, Obscurely Regulated: Lessons from the Basel Convention on Waste Trade*, 114 AJIL UNBOUND 200 (2020).

Kirby, Rebecca A., *The Basel Convention and the Need for United States Implementation*, 24 GA. J. INT'L & COMP. L. 281 (1994–1995).

Kirk, Elizabeth A. & Naporn Popattanachai, *Marine Plastics: Fragmentation, Effectiveness and Legitimacy in International Lawmaking*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 222 (2018).

Kitt, Jennifer R., *Waste Exports to the Developing World: A Global Response Note*, 7 GEO. INT'L ENVTL. L. REV. 485 (1995).

Klemeš, Jiří Jaromír, et al., *Plastics: Friends or Foes? The Circularity and Plastic Waste Footprint*, 43 ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS 1549 (Jul. 2021).

Koskenniemi, Martti & Päivi Leino, *Fragmentation of International Law? Postmodern Anxieties*, 15 LEIDEN JOURNAL OF INTERNATIONAL LAW 553 (Sep. 2002).

Krasner, Stephen D., *Structural Causes and Regime Consequences: Regimes as Intervening Variables*, 36 INTERNATIONAL ORGANIZATION 185 (1982).

Krueger, Jonathan, *Prior Informed Consent and the Basel Convention: The Hazards of What Isn't Known*, 7 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 115 (Jun. 1998).

Krueger, Jonathan, *What's to Become of Trade in Hazardous Wastes? The Basel Convention One Decade Later*, 41 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 10 (Nov. 1999).

Kuehn, Robert R., *A Taxonomy of Environmental Justice*, 30 ENVTL. L. REP. NEWS & ANALYSIS 10681 (2000).

Kummer, Katharina, *The Basel Convention: Ten Years On*, 7 REV. EUR. COMP. & INT'L ENVTL. L. 227 (1998).

Kummer Peiry, Katharina, *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 107 PROCEEDINGS OF THE ANNUAL MEETING (AMERICAN SOCIETY OF INTERNATIONAL LAW) 434 (2013).

Laurence, Duncan & Brian Wynne, *Transporting Waste in the European Community: A Free Market?*, 31 ENVIRONMENT: SCIENCE AND POLICY FOR SUSTAINABLE DEVELOPMENT 12 (Aug. 1989).

Lebreton, Laurent, et al., Evidence that the Great Pacific Garbage Patch is Rapidly Accumulating Plastic, 8 SCIENTIFIC REPORTS 4666 (Mar. 2018).

Lepawsky, Josh, *Are We Living in a Post-Basel World?*, 47 AREA 7 (2015).

Lepawsky, Josh, *The Changing Geography of Global Trade in Electronic Discards: Time to Rethink the e-Waste Problem*, 181 THE GEOGRAPHICAL JOURNAL 147 (2015).

Lester, James P. et al., *Hazardous Wastes, Politics, and Public Policy: A Comparative State Analysis*, 36 WESTERN POLITICAL QUARTERLY 257 (1983).

Levy, Marc A. et al., *The Study of International Regimes*, 1 EUROPEAN JOURNAL OF INTERNATIONAL RELATIONS 267 (Sep. 1995).

Li, W. C. et al., *Plastic Waste in the Marine Environment: A Review of Sources, Occurrence and Effects*, 566–567 SCIENCE OF THE TOTAL ENVIRONMENT 333 (Oct. 2016).

Liang, Yangyang et al., *An Analysis of the Plastic Waste Trade and Management in Asia*, 119 WASTE MANAGEMENT 242 (Jan. 2021).

Lin, Albert C., *The Unifying Role of Harm in Environmental Law*, 2006 WIS. L. REV. 897 (2006).

Lipman, Zada, *Transboundary Movement of Hazardous Waste: Environmental Justice Issues for Developing Countries*, 1999 ACTA JURIDICA 266 (1999).

Lipson, Charles, *The Transformation of Trade: The Sources and Effects of Regime Change*, 36 INTERNATIONAL ORGANIZATION 417 (1982).

Liu, Zhe et al., *Are Exports of Recyclables from Developed to Developing Countries Waste Pollution Transfer or Part of the Global Circular Economy?*, 136 RESOURCES, CONSERVATION AND RECYCLING 22 (Sep. 2018).

Lober, Douglas J., *Municipal Solid Waste Policy and Public Participation in Household Source Reduction*, 14 WASTE MANAG RES 125 (1996).

Lucier, Cristina A. & Brian J. Gareau, *From Waste to Resources? Interrogating 'Race to the Bottom' in the Global Environmental Governance of the Hazardous Waste Trade*, 21 JWSR No. 2, 495 (Aug. 2015).

Lucier, Cristina A. & Brian J. Gareau, *Obstacles to Preserving Precaution and Equity in Global Hazardous Waste Regulation: An Analysis of Contested Knowledge in the Basel Convention*, 16 INT ENVIRON AGREEMENTS 493 (Aug. 2016).

Luppi, Barbara, et al., *The Rise and Fall of the Polluter-Pays Principle in Developing Countries*, 32 INTERNATIONAL REVIEW OF LAW AND ECONOMICS 135 (Mar. 2012).

Mackey, Tim K., et al., *The Minamata Convention on Mercury: Attempting to Address the Global Controversy of Dental Amalgam Use and Mercury Waste Disposal*, 472 SCIENCE OF THE TOTAL ENVIRONMENT 125 (2014).

Macrory, Richard, *The Control of Hazardous Wastes - Law Enforcement in Practice Environmental Law in the USSR and the United Kingdom: Agriculture, Industry, and Hazardous Wastes*, 4 CONN. J. INT'L L. 333 (1989).

Mclachlan, Campbell, *The Principle of Systemic Integration and Article 31(3(c) of the Vienna Convention*, 54 INTERNATIONAL & COMPARATIVE LAW QUARTERLY 279 (Apr. 2005).

Mbengue, Makane Moïse, *The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations*, 110 AMERICAN JOURNAL OF INTERNATIONAL LAW 285 (2016).

Montarsolo, Alessio, et al., *Study on the Microplastics Release from Fishing Nets*, 133 EUR. PHYS. J. PLUS No. 11, 494 (Nov. 2018).

Montgomery, Mark A., *Travelling Toxic Trash: An Analysis of the 1989 Basel Convention*, 14 FLETCHER FORUM OF WORLD AFFAIRS 313 (1990).

Müller, Simone M., *The "Flying Dutchmen": Ships' Tales of Toxic Waste in a Globalized World*, RCC PERSPECTIVES 13 (Rachel Carson Center 2016).

Murphy, Hannah & Aynsley Kellow, *Forum Shopping in Global Governance: Understanding States, Business and NGOs in Multiple Arenas*, 4 GLOBAL POLICY 139 (2013).

Oberthür, Sebastian, *Interplay Management: Enhancing Environmental Policy Integration among International Institutions*, 9 INT ENVIRON AGREEMENTS 371 (Aug. 2009).

O'Brien, Stacey, et al., *Airborne Emissions of Microplastic Fibres from Domestic Laundry Dryers*, 747 SCIENCE OF THE TOTAL ENVIRONMENT 141175 (Dec. 2020).

Ostle, Clare, et al., *The Rise in Ocean Plastics Evidenced from a 60-Year Time Series*, 10 NATURE COMMUNICATIONS 1622 (Apr. 2019).

Palmer, Geoffrey, *New Ways to Make International Environmental Law*, 86 AMERICAN JOURNAL OF INTERNATIONAL LAW 259 (Cambridge University Press Apr. 1992).

Paradell-Trius, Lluis, *Principles of International Environmental Law: An Overview*, 9 REV. EUR. COMP. & INT'L ENVTL. L. 93 (2000).

Patrício Silva, Ana L., et al., *Rethinking and Optimising Plastic Waste Management under COVID-19 Pandemic: Policy Solutions Based on Redesign and Reduction of Single-Use Plastics and Personal Protective Equipment*, 742 SCIENCE OF THE TOTAL ENVIRONMENT 140565 (Nov. 2020).

Paul, Katie, *Exporting Responsibility*, 34 ENVTL. POL'Y & L. 73 (2004).

Perrez, Franz Xaver, *The Relationship Between "Permanent Sovereignty" and the Obligation Not to Cause Transboundary Environmental Damage*, 26 ENVIRONMENTAL LAW 1187 (1996).

Peters, Anne, *The Refinement of International Law: From Fragmentation to Regime Interaction and Politicization*, 15 INT J CONST LAW 671 (Oxford Academic Oct. 2017).

Ana Pires & Graça Martinho, *Waste Hierarchy Index for Circular Economy in Waste Management*, 95 WASTE MANAGEMENT 298 (Jul. 2019).

Poulakidas, Dean M., *Waste Trade and Disposal in the Americas: The Need for and Benefits of a Regional Response*, 21 VT. L. REV. 873 (1996–1997).

Raubenheimer, Karen et al., To*wards an Improved International Framework to Govern the Life Cycle of Plastics*, 27 REV. EUR. COMP. & INT'L ENVTL. L. 210 (2018).

Re, Viviana, *Shedding Light on the Invisible: Addressing the Potential for Groundwater Contamination by Plastic Microfibers*, 27 HYDROGEOL J 2719 (Nov. 2019).

Robertson, Gordon L., *Good and Bad Packaging: Who Decides?*, 20 INTERNATIONAL

JOURNAL OF PHYSICAL DISTRIBUTION & LOGISTICS MANAGEMENT 37 (Jan. 1990).

Roht-Arriaza, Naomi, *Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment*, 22 ECOLOGY LAW QUARTERLY 479 (1995).

Roht-Arriaza, Naomi, *Private Voluntary Standard-Setting, the International Organization for Standardization, and International Environmental Lawmaking*, 6 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 107 (Dec. 1995).

Rublack, Susanne, *Controlling Transboundary Movements of Hazardous Waste: The Evolution of a Global Convention*, 13 FLETCHER F. WORLD AFF. 113 (1989).

Rublack, Susanne, *Fighting Transboundary Waste Streams: Will the Basel Convention Help?*, 22 VERFASSUNG UND RECHT IN ÜBERSEE 364 (1989).

Ruggie, John Gerard, *International Responses to Technology: Concepts and Trends*, 29 INTERNATIONAL ORGANIZATION 557 (Cambridge University Press 1975).

Ruggie, John Gerard, *What Makes the World Hang Together? Neo-Utilitarianism and the Social Constructivist Challenge*, 52 INTERNATIONAL ORGANIZATION 855 (1998).

Rummel-Bulska, Iwona, *The Basel Convention: A Global Approach for the Management of Hazardous Wastes*, 24 ENVIRONMENTAL POLICY AND LAW 13 (1994).

Ryberg, Morten W. et al., *Global Environmental Losses of Plastics across Their Value Chains*, 151 RESOURCES, CONSERVATION AND RECYCLING 104459 (Dec. 2019).

Sand, Peter H., *Lessons Learned in Global Environmental Governance*, 18 B. C. ENVTL. AFF. L. REV. 213 (1990–1991).

Sands, Philippe, *European Community Environmental Law: Legislation, the European Court of Justice and Common-Interest Groups*, 53 MOD. L. REV. 685 (1990).

Sands, Philippe, *The Greening of International Law: Emerging Principles and Rules*, 1 IND. J. GLOBAL LEGAL STUD. 293 (1993).

Schneider, William, *The Basel Convention Ban on Hazardous Waste Exports: Paradigm of Efficacy or Exercise in Futility Notes*, 20 SUFFOLK TRANSNAT'L L. REV. 247 (1996).

Selin, Henrik, *Global Environmental Law and Treaty-Making on Hazardous Substances: The Minamata Convention and Mercury Abatement*, 14 GLOBAL ENVIRONMENTAL POLITICS 1 (2014).

Sembiring, Margareth, *Global Waste Trade Chaos: Rising Environmentalism or Cost-Benefit Analysis?*, IN19-02 NTS INSIGHT (Jul. 2019).

Senathirajah, Kala, et al., *Estimation of the Mass of Microplastics Ingested – A Pivotal First Step towards Human Health Risk Assessment*, 404 JOURNAL OF HAZARDOUS MATERIALS 124004 (Feb. 2021).

Senior, Kathryn & Alfredo Mazza, *Italian "Triangle of Death" Linked to Waste Crisis*, 5 THE LANCET ONCOLOGY 525 (Sep. 2004).

Shearer, C. Russel H., *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste*, 23 ENVTL. L. 141 (1993).

Shi, Jiujie et al., *The Expansion and Shrinkage of the International Trade Network of Plastic Wastes Affected by China's Waste Management Policies*, 25 SUSTAINABLE

PRODUCTION AND CONSUMPTION 187 (Jan. 2021).

Shibata, Akiho, *The Basel Compliance Mechanism*, 12 REV. EUR. COMP. & INT'L ENVTL. L. 183 (Jul. 2003).

Shibata, Akiho, *International Environmental Lawmaking in the First Decade of the Twenty-First Century: The Form and Process*, 54 JAPANESE Y.B. INTL. LAW 28 (2011).

Shibata, Akiho, *ICRW as an Evolving Instrument: Potential Broader Implications of the Whaling Judgment*, 58 JAPANESE Y.B. INT'L L. 298 (2015).

Shomura, R. S. & M. L. Godfrey, Proceedings of the Second International Conference on Marine Debris 2-7 April 1989, Honolulu, Hawaii, Volume 2, NOAA TECHNICAL MEMORANDUM (1990).

Smith, Denis, The Kraken Wakes: *Corporate Social Responsibility and the Political Dynamics of the Hazardous Waste Issue*, 5 INDUSTRIAL CRISIS QUARTERLY 189 (1991).

John Thomas Smith, *The Challenges of Environmentally Sound and Efficient Regulation of Waste: The Need for Enhanced International Understanding*, 5 J ENVIRONMENTAL LAW 91 (1993).

Soto, Max Valverde, *General Principles Of International Environmental Law*, 3 ILSA JOURNAL OF INTERNATIONAL & COMPARATIVE LAW 193 (1996).

Stein, Arthur A., *Coordination and Collaboration: Regimes in an Anarchic World*, 36 INTERNATIONAL ORGANIZATION 299 (1982).

Strang, David & Patricia Mei Yin Chang, *The International Labor Organization and the Welfare State: Institutional Effects on National Welfare Spending*, 1960–80, 47 INTERNATIONAL ORGANIZATION 235 (1993).

Strange, Susan, *Cave! Hic Dragones: A Critique of Regime Analysis*, 36 INTERNATIONAL ORGANIZATION 479 (1982).

Strohm, Laura A., *The Environmental Politics of the International Waste Trade*, 2 THE JOURNAL OF ENVIRONMENT & DEVELOPMENT 129 (Jun. 1993).

Sundram, Muthu S., *Basel Convention on Transboundary Movement of Hazardous Wastes: Total Ban Amendment*, 9 PACE INT'L L. REV. 1 (1997).

Szell, Patrick, *Decision Making under Multilateral Environmental Agreements Other International Developments*, 26 ENVTL. POL'Y & L. 210 (1996).

Thiele, Christina J. et al., *Microplastics in Fish and Fishmeal: An Emerging Environmental Challenge?*, 11 SCIENTIFIC REPORTS 2045 (Jan. 2021).

Thompson, Richard C. et al., *Lost at Sea: Where is All the Plastic?*, 304 SCIENCE 838 (May 2004).

Triassi, Maria, et al., *Environmental Pollution from Illegal Waste Disposal and Health Effects: A Review on the "Triangle of Death,"* 12 INT J ENVIRON RES PUBLIC HEALTH 1216 (2015).

Trouwborst, Arie, *Prevention, Precaution, Logic and Law - The Relationship between the Precautionary Principle and the Preventative Principle in International Law and Associated Questions The Many Facets of Precautionary Logic*, 2 ERASMUS L. REV. 105 (2009).

Uhm, Yeeun, *Plastic Waste Trade in Southeast Asia after China's Import Ban: Implications of the New Basel Convention Amendment and Recommendations for the Future*, 57 CAL. W. L. REV. 1 (2020).

S. Van Ewijk & J. A. Stegemann, *Limitations of the Waste Hierarchy for Achieving Absolute Reductions in Material Throughput*, 132 JOURNAL OF CLEANER PRODUCTION 122 (Sep. 2016).

Vanapalli, Kumar Raja et al., *Challenges and Strategies for Effective Plastic Waste Management during and Post COVID-19 Pandemic*, 750 SCIENCE OF THE TOTAL ENVIRONMENT 141514 (Jan. 2021).

Vethaak, A. Dick & Juliette Legler, *Microplastics and Human Health*, 371 SCIENCE 672 (Feb. 2021).

Vethaak, A. Dick & Heather A. Leslie, *Plastic Debris Is a Human Health Issue*, 50 ENVIRON. SCI. TECHNOL. 6825 (Jul. 2016).

Vu, Hao-Nhien Q., *The Law of Treaties and the Export of Hazardous Waste Comment*, 12 UCLA J. ENVTL. L. & POL'Y 389 (1993–1994).

Wang, Ping, et al., Municipal Solid Waste (MSW) *Incineration Fly Ash as an Important Source of Heavy Metal Pollution in China*, 252 ENVIRONMENTAL POLLUTION 461 (Sep. 2019).

Waring, R. H., et al., *Plastic Contamination of the Food Chain: A Threat to Human Health?*, 115 MATURITAS 64 (Sep. 2018).

Webster-Main, Andrew, *Keeping Africa out of the Global Backyard: A Comparative Study of the Basel and Bamako Conventions*, 26 ENVIRONS: ENVTL. L. & POL'Y J. 65 (2002).

Wiersema, Annecoos, *The New International Law-Makers - Conferences of the Parties to Multilateral Environmental Agreements*, 31 MICH. J. INT'L L. 231 (2009–2010).

Wirth, David A., *Trade Implications of the Basel Convention Amendment Banning North-South Trade in Hazardous Wastes*, 7 REV. EUR. COMP. & INT'L ENVTL. L. 237 (1998).

Wolf, Katy, *Source Reduction and the Waste Management Hierarchy*, 38 JAPCA 681 (May 1988).

Wolf, Sidney M., *Public Opposition to Hazardous Waste Sites: The Self-Defeating Approach to National Hazardous Waste Control under Subtitle C of the Resource Conservation and Recovery Act of 1976*, 8 B. C. ENVTL. AFF. L. REV. 463 (1980).

Wolfrum, Rudiger, *Purposes and Principles of International Environmental Law*, 33 GERMAN Y.B. INT'L L. 308 (1990).

Wright, Stephanie L. & Frank J. Kelly, *Plastic and Human Health: A Micro Issue?*, 51 ENVIRON. SCI. TECHNOL. 6634 (Jun. 2017).

Yang, Shiming, *Trade for the Environment: Transboundary Hazardous Waste Movements After the Basel Convention*, 37 REVIEW OF POLICY RESEARCH 713 (2020).

Yang, Tseming & C. Scott Fulton, *The Case for U.S. Ratification of the Basel Convention on Hazardous Wastes*, 25 N.Y.U. ENVTL. L.J. 52 (2017).

Young, Oran R., *International Regimes: Problems of Concept Formation*, 32 WORLD POLITICS 331 (Cambridge University Press 1980).

Young, Oran R., *Regime Dynamics: The Rise and Fall of International Regimes*, 36

INTERNATIONAL ORGANIZATION 277 (1982).

Young, Oran R., *The Politics of International Regime Formation: Managing Natural Resources and the Environment*, 43 INTERNATIONAL ORGANIZATION 349 (1989).

Zamora, Stephen, *Is There Customary International Economic Law*, 32 GERMAN Y.B. INT'L L. 9 (1989).

Zhang, Qun, et al., *A Review of Microplastics in Table Salt, Drinking Water, and Air: Direct Human Exposure*, 54 ENVIRON. SCI. TECHNOL. 3740 (Apr. 2020).

Katja S. Ziegler, *Beyond Pluralism and Autonomy: Systemic Harmonisation as a Paradigm for the Interaction of EU Law and International Law*, 35 YEARBOOK OF EUROPEAN LAW 667 (2016).

Online Materials

Who We Are, GLOBAL PARTNERSHIP ON MARINE LITTER, https://www.gpmarinelitter.org/who-we-are (last visited Jun. 3, 2021).

Country Led Initiative Meetings, BASEL CONVENTION, http://www.basel.int/Implementation/LegalMatters/CountryLedInitiative/Meetings/tabid/2680/Default.aspx (last visited Jun. 29, 2020).

Ratification of the Basel Convention Ban Amendment, BASEL CONVENTION, http://www.basel.int/Countries/StatusofRatifications/BanAmendment/tabid/1344/Default.aspx (last visited Jan. 8, 2021).

Chambers and Committees | International Court of Justice, https://www.icj-cij.org/en/chambers-and-committees (last visited Dec. 2, 2021).

BAN Annotated Agenda - Basel Action Network Wiki, http://wiki.ban.org/BAN_Annotated_Agenda (last visited Dec. 22, 2021).

Cases of Illegal Traffic, BASEL CONVENTION, http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/CasesofIllegalTraffic/tabid/3424/Default.aspx (last visited Jan. 2, 2022).

List of OECD Member Countries - Ratification of the Convention on the OECD, https://www.oecd.org/about/document/ratification-oecd-convention.htm (last visited Dec. 16, 2021).

OECD Strengthens Engagement with Partner Countries during Annual Ministerial Meeting - OECD, https://www.oecd.org/countries/lithuania/oecd-strengthens-engagement-with-partner-countries-during-annual-ministerial-meeting.htm (last visited Jan. 13, 2022).

Definition of INTERACTION, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/interaction (last visited Jan. 14, 2022).

About, CLEAN SEAS, https://www.cleanseas.org/about (last visited Jun. 3, 2021).

OECD Countries Make Partial Progress Updating Rules on International Shipping of Plastic Waste - OECD, https://www.oecd.org/industry/oecd-countries-make-partial-progress-updating-rules-on-international-shipping-of-plastic-waste.htm (last visited Jun. 4, 2021).

Other Materials

Basel Action Network, BAN Comments on Three Swiss-Indonesian Country Led Initiative (CLI) Documents.

BAN, *Global Waste Shell Game: "Returned" Illegal Waste Shipments from U.S., Diverted from Indonesia to Other Asian Countries*, BASEL ACTION NETWORK, https://www.ban.org/news/2019/10/28/global-waste-shell-game-returned-illegal-waste-shipments-from-us-diverted-from-indonesia-to-other-asian-countries (last visited Mar. 22, 2021).

BAN & IPEN, The Entry into Force of the Basel Ban Amendment: A Guide to Implications and Next Steps (Nov. 2019).

CELL, In the Matter of Canada's Violations of the Basel Convention: Legal Opinion 25 (Pacific Center for Environmental Law and Litigation Apr. 2019).

Crawford, James & Philippe Sands, Article 11 Agreements under the Basel Convention (1997).

GAIA, Transposing the Basel Convention Plastic Waste Amendments: Challenges & Recommendations (Nov. 2020).

Gokkon, Basten, *Indonesia Re-Exporting Illegal Waste to Other Countries, Report Finds*, MONGABAY ENVIRONMENTAL NEWS, https://news.mongabay.com/2019/11/indonesia-waste-plastic-export-import-illegal/ (last visited Mar. 22, 2021).

Greenpeace, The Waste Invasion of Asia: A Greenpeace Inventory (Jan. 1994).

Greenpeace, Southeast Asia's Struggle Against the Plastic Waste Trade: A Policy Brief for ASEAN Member States 19 (Greenpeace 2019).

Greenpeace International, The Transboundary Movement of Hazardous and Nuclear Wastes in the Wider Caribbean Region - A Call for a Legal Instrument within the Cartagena Convention, No. 7 (1991).

Greenpeace International, *Investigation Finds Plastic from the UK and Germany Illegally Dumped in Turkey*, GREENPEACE, https://www.greenpeace.org/international/press-release/47759/investigation-finds-plastic-from-the-uk-and-germany-illegally-dumped-in-turkey (last visited Jun. 3, 2021).

Greenpeace Philippines & EcoWaste Coalition, Waste Trade in The Philippines: How Local and Global Policy Instruments Can Stop the Tide of Foreign Waste Dumping in the Country. (Mar. 2020).

Guevara, Maria Isolda P. & Michael Hart, Trade Policy Implications of the Basel Convention Export Ban on Recyclables from Developed to Developing Countries (May 1996).

Hamdan, Fouad, Waste Trade in the Mediterranean: Toxic Attack against Lebanon. Case One: Toxics from Italy 28 (Aug. 1996).

Institute of Scrap Recycling Industries, *ISRI Scraps Specification Circular 2020* (Mar. 2020).

IPEN, *Banning Waste Imports Urged to Protect PH from Becoming a Garbage Bin for Other Countries*, IPEN, https://ipen.org/news/banning-waste-imports-urged-protect-ph-becoming-garbage-bin-other-countries (last visited Mar. 22, 2021).

IPEN, *Italian Company Caught Illegally Dumping Plastic and Other Municipal Waste in Tunisia*, IPEN, https://ipen.org/news/italian-company-caught-illegally-dumping-plastic-and-other-municipal-waste-tunisia (last visited Mar. 23, 2021).

Isarin, Nancy, Overview of the Challenges and Needs of Parties and Various Stakeholders in Preventing and Combating Illegal Traffic in Line with the Requirements of the Basel Convention: Gap Analysis 33 (Apr. 2014).

Jacobson, Harold K. & Edith Brown Weiss, *Implementing and Complying with International Environmental Accords: A Framework for Research*, 86th Annual Meeting of the American Political Science Association (1990).

Ministry of the Environment of Japan, Analysis of Transboundary Movements of Hazardous Wastes and Other Wastes in Asia (Mar. 2011).

von Moltke, K., *The Vorsorgeprinzip in West German Environmental Policy* (Royal Commission on Environmental Polution, UK, HMSO 1988).

Nexus3, *PRESS RELEASE: Environmental Groups Decry Indonesian Waste Chaos Call for Strict Ban on Waste Import*, NEXUS3/BALIFOKUS, https://www.nexus3foundation.org/single-post/2019/11/05/environmental-groups-decry-indonesian-waste-chaos-call-for-strict-ban-on-waste-imports (last visited Mar. 22, 2021).

PlasticEurope, Plastics – the Facts 2017: An Analysis of European Plastics Production, Demand and Waste Data (PlasticEurope 2018).

Puckett, Jim & Cathy Fogel, A Victory for Environment and Justice: The Basel Ban and How It Happened (Greenpeace International 1994).

Ranada, Pia, *Canada Wants Its Illegal Garbage "processed" in PH*, RAPPLER, https://www.rappler.com/nation/canada-ambassador-illegal-garbage-philippines (last visited Mar. 23, 2021).

Siregar, Kiki, *"My House is Full of Garbage": In West Java, Imported Waste Worsens Living Conditions of Villagers*, CNA, https://www.channelnewsasia.com/news/asia/indonesia-imported-waste-foreign-bekasi-burangkeng-west-java-11822250 (last visited Mar. 22, 2021).

United States Department of State, *Basel Convention on Hazardous Wastes*, UNITED STATES DEPARTMENT OF STATE, https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/basel-convention-on-hazardous-wastes/.

WasteForce, WasteForce Crime Alert Overview: January 2018-January 2020 (Jan. 2020).

WasteForce, WasteForce Crime Alert #5: December- February 2020 (Feb. 2020).

WasteForce, WasteForce Crime Alert #6: March- May 2020 (May 2020).

WasteForce, WasteForce Crime Alert #7: June- Aug 2020 (Aug. 2020).

WasteForce, WasteForce Crime Alert #8: September - November 2020 (Nov. 30, 2020).

Treaties (chronological)

International Convention for the Regulation of Whaling, No. 161 UNTS 72 (Nov. 1948).

International Convention Relating to Intervention on the High Seas in Cases of Oil

Pollution Casualties, 970 UNTS 211 (Nov. 1969).

International Convention for the Prevention of Pollution from Ships as Modified by the Protocol of 1978, 1341 UNTS 3 (Feb. 1978).

Vienna Convention on the Law of Treaties, 1155 UNTS 331 (Jan. 1980).

Vienna Convention for the Protection of the Ozone Layer, 1513 UNTS 293 (Mar. 1985).

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1673 UNTS 57 (Mar. 1989).

Fourth ACP-EEC Convention, 1924 UNTS 3 (Dec. 1989).

Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, 2101 UNTS 177 (Jan. 1991).

Convention on Biological Diversity, 1760 UNTS 79 (Dec. 1993).

Convention on the Law of the Sea, 1833-1835 UNTS 3 No. 31363 (Nov. 1994).

1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, 1046 UNTS 120 (Jul. 1996).

Convention on the Law of the Non-Navigational Uses of International Watercourses, 2999 UNTS 77 (May 1997).

Kyoto Protocol to the United Nations Framework Convention on Climate Change, 2303 UNTS 162 (Nov. 1997).

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 2161 UNTS 447 (Jun. 1998).

Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (1999).

Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 2167 UNTS 3 (Dec. 2001).

Basel Convention Documents (chronological)

Report of the First Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.1/24 (Dec. 1992).

Guidance Document on the Preparation of Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention, No. UNEP/CHW.1/20/Rev.1 (Dec. 1992).

Rules of Procedure for the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, No. UNEP/CHW.1/3/Rev.1 and UNEP/CHW.1/3/Rev.1/Corr.1 (Dec. 1992).

Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 4th Session, No. UNEP/CHW/WG.4/4/6 (Jun. 1993).

Report of the Second Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.2/30 (Mar. 1994).

EU Commission Legal Opinion on Article 11 (Oct. 1994).

Report of the Second Session of Open-Ended Ad Hoc Committee for the Implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Other Wastes and Their Disposal, No. UNEP/CHW/C.1/2/14 (Dec. 1994).

Report of the Third Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.3/34 (Oct. 1995).

Report of the Technical Working Group on Tenth Session, No. UNEP/CHW/WG.4/10 (Apr. 1996).

Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 12th Session, No. UNEP/CHW/WG.4/12/10 (Feb. 1997).

Report of the Fourth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.4/35 (Feb. 1998).

Report of the Fourth Session of the Open-Ended Ad Hoc Committee for the Implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, No. UNEP/CHW/C.1/4/26 (Jun. 1999).

Draft Declaration and Draft Decision on Environmentally Sound Management, No. UNEP/CHW.5/23 (Oct. 1999).

Report of the Fifth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.5/29 (Dec. 1999).

Report of the Technical Working Group on Its Sixteenth Meeting, No. UNEP/CHW/TWG/16/12 (Apr. 2000).

Report of The Seventeenth Session of the Technical Working Group, No. UNEP/CHW/TWG/17/15 (Oct. 2000).

Report of The Eighteenth Session of the Technical Working Group, No. UNEP/CHW/TWG/18/14 (Jun. 2001).

Report of The Nineteenth Session of the Technical Working Group, No. UNEP/CHW/TWG/19/13 (Feb. 2002).

Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Wastes and for Their Disposal, No. UNEP/CHW.6/21 (Aug. 23, 2002).

The Basel Declaration on Environmentally Sound Management and Implementation of Decision V/33 on Environmentally Sound Management, No. UNEP/CHW.6/2 (Oct. 2002).

Strategic Plan for the Implementation of the Basel Convention (2000-2010), No. UNEP/CHW.6/3 (Nov. 2002).

Draft Strategic Plan for the Implementation of the Basel Convention (2000-2010), No. UNEP/CHW.6/3/Add.1 (Nov. 2002).

Secretariat of the Basel Convention, *Guidance Document on Transboundary Movements of Hazardous Wastes Destined for Recovery Operations*, No. UNEP/SBC(05)/B2/no.95/002 (Secretariat of the Basel Convention 2002).

Report of the Sixth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.6/40 (Feb. 2003).

Report of the Open-Ended Working Group of the Basel Convention on the Work of Its Second Session, No. UNEP/CHW/OEWG/2/12 (Dec. 2003).

Analysis of Issues Related to Annex VII, No. UNEP/CHW.7/12 (Aug. 2004).

Report of the Seventh Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals, No. UNEP/CHW.7/33 (Jan. 2005).

Communication Transmitted by the President to the Members of the Expanded Bureau Concerning the Interpretation of Article 17, Paragraph 5, of the Convention and the Implementation of Decision III/1 and Compilation of Comments Received from Parties, No. UNEP/CHW.8/INF/20 (Sep. 2006).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposals at Its Eighth Meeting, No. UNEP/CHW.8/16, 109 (Jan. 2007).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Ninth Meeting, No. UNEP/CHW.9/39 (Jun. 2008).

Indonesian-Swiss Country-Led Initiative (CLI) to Improve the Effectiveness of the Basel Convention, First Meeting 15 -17 June 2009, Report to the Expanded Bureau of the Basel Convention, No. CLI/2009/R (Jun. 2009).

Indonesian-Swiss Country-Led Initiative to Improve the Effectiveness of the Basel Convention, No. UNEP/CHW/OEWG.7/7 (Feb. 2010).

Information Document for the Seventh Session of the Open-Ended Working Group, 10-14 May 2010, No. UNEP/CHW/OEWG/7/INF/8 (Mar. 2010).

Report of the Open-Ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Seventh Session, No. UNEP/CHW/OEWG.7/21 (May 2010).

Indonesian-Swiss Country-Led Initiative (CLI) to Improve the Effectiveness of the Basel Convention: Explanatory Note, No. CLI/2010/3/2 (Sep. 2010).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Tenth Meeting, No. UNEP/CHW.10/28 (Nov. 2011).

Zoï Environment Network & GRID-Arendal, Vital Waste Graphics 3 (Secretariat of the Basel Convention 2012).

Framework for the Environmentally Sound Management of Hazardous Wastes and Other Wastes, No. UNEP/CHW.11/3/Add.1/Rev.1 (Jun. 2013).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on Its Eleventh Meeting, No. UNEP/CHW.11/24 (Jul. 2013).

Set of Practical Manuals for the Promotion of the Environmentally Sound Management of Wastes, No. UNEP/CHW.13/4/Add.1/Rev.1 (Aug. 2017).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Thirteenth Meeting, No. UNEP/CHW.13/28 (Aug. 2017).

Report on Possible Options Available under the Basel Convention to Further Address Marine Plastic Litter and Microplastics, No. UNEP/CHW/OEWG.11/INF/22 (May 2018).

Application for the Removal of Wastes from Annex IX to the Basel Convention, No. UNEP/CHW/OEWG.11/14 (Jun. 2018).

Government of Norway, Application by Norway to Amend Annex IX to the Basel Convention and Addendum, No. UNEP/CHW/OEWG.11/INF/36 (Jun. 2018).

Report of the Open-Ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Eleventh Meeting, No. UNEP/CHW/OEWG.11/15 (Oct. 2018).

Secretariat of the Basel Convention & Norwegian Ministry of Climate and Environment, Proposals to Amend Annexes II, VIII and IX of the Basel Convention to Be Considered at the Fourteenth Meeting of the Conference of the Parties (Oct. 2018).

Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the Work of Its Fourteenth Meeting, No. UNEP/CHW.14/28 (May 2019).

Canada: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention (United Nations Mar. 2020).

China: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention (United Nations Mar. 2020).

Turkey: Notification in Accordance with Article 18(2)(B) Relating to the Amendments to Annexes II, VIII, and IX of the Convention (United Nations Mar. 2020).

Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal Fifteenth Meeting Provisional Agenda, No. UNEP/CHW.15/1 (Dec. 14, 2020).

Proposal by Ghana and Switzerland to amend Annexes II, VIII and IX to the Basel Convention, No. UNEP/CHW.15/13/Add.2 (Feb. 9, 2021).

Information from Ghana and Switzerland on Their Proposal to Amend Annexes II, VIII and IX to the Basel Convention, No. UNEP/CHW.15/INF/22 (Jun. 2021).

UNEP Documents except those under the Basel Convention (chronological)

Programme for the Development and Periodic Review of Environmental Law, No. UNEP/GC/DEC.10/21 (Nov. 1981).

Final Report of the Working Group: Ad Hoc Working Group of Experts on the

Environmentally Sound Management of Hazardous Wastes, No. UNEP/WG.122/3 (Dec. 1985).

Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes, No. UNEP/GC.14/17 (Apr. 1987).

United Nations Environment Programme Report of the Governing Council on the Work of Its Fourteenth Session, No. UNEP/GC.14/26 (Jul. 1987).

First Draft Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.180/2 (Oct. 1987).

Report of the Ad Hoc Working Group on the Work of the Organizational Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.180/3 (Oct. 1987).

Report of the Ad Hoc Working Group on the Work of the Fourth Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.190/4 & UNEP/WG.190/4/Corr.I (Feb. 1988).

Report of the Ad Hoc Working Group on the Work of the First Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.182/3 (Feb. 5, 1988).

Note from the Executive Director of UNEP, No. UNEP/WG.186/2 (May 1988).

Report of the Ad Hoc Working Group on the Work of the Second Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.186/3 (Jun. 1988).

Fourth Revised Draft Convention on the Control of the Transboundary Movement of Hazardous Wastes, No. UNEP/WG.189/L.2/Rev.1 (Sep. 1988).

Report of the Ad Hoc Working Group on the Work of the Third Session: Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movements of Hazardous Wastes, No. UNEP/WG.189/3 (Nov. 1988).

Explanatory Notes with Recommendations for Amending Annexes I-IV of the Fifth Revised Draft Convention, No. UNEP/WG.190/3/Add.1 (Jan. 1989).

Amended Annexes, No. UNEP/WG.190/3/Add.2 (Jan. 1989).

Draft Convention on the Control of Transboundary Hazardous Waste, No. UNEP/WG.191/4 (Mar. 1989).

Final Report of the Ad Hoc Working Group of Legal and Technical Experts with a Mandate to Prepare a Global Convention on the Control of Transboundary Movement of Hazardous Wastes, No. UN Doc. UNEP/IG.80/4 (Mar. 1989).

Report of the Experts Meeting on an International Waste Management Strategy, No. UNEP/CHW/WG.2/1/3 (Dec. 1991).

Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on

Its 1st Session, No. UNEP/CHW/WG.4/1/6 (Feb. 1992).

Report of the Technical Working Group to Prepare Draft Technical Guidelines for the Environmentally Sound Management of Wastes Subject to the Basel Convention on Its 2nd Session, No. UNEP/CHW/WG.4/2/2 (May 1992).

Secretariat of the Convention on Biological Diversity, Impacts of Marine Debris on Biodiversity: Current Status and Potential Solutions (Secretariat of the Convention on Biological Diversity 2012).

Resolution 1/6. Marine plastic debris and microplastics, Res.6, United Nations Environmental Assembly, 1st Sess. (2014).

Resolution 2/11. Marine plastic litter and microplastics, Res.11, United Nations Environmental Assembly, 2d Sess. (2016).

UNEP, The State of Knowledge of Crimes that have Serious Impacts on the Environment (2018).

Other United Nations Documents (chronological)

Permanent Sovereignty over Natural Resources, U.N. Doc. A/RES/1803(XVII), U.N. GA, Seventeenth Sess. (1962).

1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (vol. I), 31 ILM 874 (Jun. 1992).

Agenda 21: Programme of Action for Sustainable Development, Rio Declaration on Environment and Development, Statement of Forest Principles: The Final Text of Agreements Negotiated by Governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992, Rio de Janeiro, Brazil, No. U.N. Doc. A/CONF. 151/26/Rev.1 (Aug. 1992).

XIII/10. Addressing Impacts of Marine Debris and Anthropogenic Underwater Noise on Marine and Coastal Biodiversity, No. CBD/COP/ DEC/XIII/10 (Dec. 2016).

Resolution 3/7. Marine litter and microplastics, UNEP/EA.3/Res.7, United Nations Environment Assembly, 3d Sess. (2018).

Waste Without Frontiers II: Global Trends in Generation and Transboundary Movements of Hazardous Wastes and Other Wastes, No. UNEP/SBC/2010/22, 68 (2018).

EEC/EC Documents (chronological)

Commission Directive 85/469/EEC of 22 July 1985 adapting to technical progress Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste No. 85/469/EEC, 272 OJ L 1–20 (European Council Jul. 22, 1985).

Single European Act, 169 OJ L 1–28 (European Council Jun. 29, 1987).

Council Regulation (EEC) on the supervision and control of shipments of waste within, into and out of the European Community (Feb. 1, 1993).

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, OJ L 1 (Jul. 12, 2006).

Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143 (2004).

Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, OJ L 151 (2019).

OECD Documents (chronological)

Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies No. C(72)128 (OECD Council May 26, 1972).

Decision-Recommendation on Transfrontier Movements of Hazardous Wastes No. C(83)180/FINAL (OECD Council Feb. 1, 1984).

Decision-Recommendation of the Council on Exports of Hazardous Wastes from the OECD area No. C(86)64/FINAL (OECD Council Jun. 5, 1986).

Recommendation of the Council on Integrated Pollution Prevention and Control No. C(90)164/FINAL (OECD Council Jan. 31, 1991).

Decision of the Council concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations No. C(92)39/FINAL (OECD Council Mar. 30, 1992).

OECD, Monitoring and Control of Transfrontier Movements of Hazardous Waste, No. OCDE/GD(93)151 (1993).

Other Documents (chronological)

The Implementation of the Ministerial Declaration of the Second International Conference on the Protection of the North Sea 553 p. (UK Ministry of Transport and Public Works, Public Relations and Documentation Mar. 1990).

Environmental Protection Act, 1990, ch. 43 (U.K.), part I, reprinted in HMSO, The Public General Acts and General Synod Measures, Part III (1991).

ILC, Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, No. Supplement No. 10 (A/56/10), chp.IV.E.1 (Nov. 2001).

ILC, Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities (with Commentaries), No. UN Doc. A/63/10 (2006).

International Law Commission Study Group, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, No. U.N. Doc. A/CN.4/L.682, 256 (Apr. 2006).

Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), 2011 ITLOS Report 10.

ILC, Summary Record of the 3178th Meeting, Yearbook of International Law Commission No. UN Doc. A/CN.4/SR.3178, 68 (2013).

ILA. “Study Group on Due Diligence in International Law,” July 16, 2016.

Case Law

International Court of Justice (in chronological order)

Corfu Channel case, Judgment of April 4th, 1949, 1949 I.C.J. Reports 4.

Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment, 1997 I.C.J. Reports 7.

Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, 2010 I.C.J. Reports 14.

Whaling in the Antarctic (Australia v. Japan: New Zealand intervening): Judgment of 31 March 2014, 2014 I.C.J. Reports 226.

Arbitration (in chronological order)

Trail smelter case (United States, Canada), 1941 III UN R. Int'l. Arb. Awards 1905 (Arbitrational Tribunal 1938).

Iron Rhine Arbitration, Belgium v Netherlands, Award, ICGJ 373 (PCA 2005), 24th May 2005, Permanent Court of Arbitration.