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THE ROLE OF TRADE IN GOVERNING PLASTIC POLLUTION

*Linda Del Savio**

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ABSTRACT

Marine plastic pollution, in particular plastic waste, has received increasing attention at the international level and has been recognized as a transboundary problem requiring a global response in the form of an international plastics treaty. While the international environmental regime provides the current framework for these discussions, the role of the trade regime is often neglected. Therefore, this article argues that an international plastics treaty is the solution. The treaty, however, must be compatible with international trade law, which requires joint coordination and cooperation between legal regimes, and must include certain economic instruments in order to effectively address the problem of marine plastic pollution.

In this vein, this article reviews different response measures and opportunities at the plastic-trade-nexus. These include national regulatory, economic, and voluntary instruments; problem-specific international agreements in the case of plastic waste trade; as well as the current negotiations on an international plastic treaty, providing a legally binding global response. The analysis shows that this global response also requires a holistic approach including a diverse set of stakeholders and policy-makers. Drawing from these findings, the article presents different steps to increase understanding of the role of trade in governing plastic pollution and the need for further international cooperation between existing regimes to overcome the fragmented legal landscape in order to address the plastic pollution problem in a comprehensive and systematic manner.

INTRODUCTION: THE ROLE OF TRADE IN GOVERNING PLASTIC
POLLUTION - AN UNDERESTIMATED FACTOR?

Marine plastic pollution, in particular plastic waste, has received increasing attention at the international level due to its increasing amount,¹ transboundary dimension, and its various negative effects. Such negative effects range from health and environmental impacts,² to socio-economic costs,³ to biodiversity loss.⁴ Plastic pollution results from a vast set of human activities, such as the production of plastics, its transportation and logistics, and the disposal and management of plastic waste.⁵ The latter results from imports of hazardous and other plastic wastes without prior informed consent, a lack of waste management capacity, high costs of building such capacity, and clean-up costs. The mismanagement of plastic waste is based on a lack of waste collection, activities such as dumping and littering, and uncontrolled landfills.⁶ Less than ten percent of approximately 6,300 million tons of plastic waste generated between 1950

1. The amount of plastics entering the ocean per year ranges from 4.8 to 12.7 million tons. See Jenna R. Jambeck et al., *Plastic Waste Inputs from Land Into the Ocean*, 347 SCI. 768, 770 (2015).

2. Impacts on human health include concerns regarding effects of pollutants such as micro- and nanoplastics. See EUR. ENV'T AGENCY, LATE LESSONS FROM EARLY WARNINGS: SCIENCE, PRECAUTION, INNOVATION 7 (2013); see also Michael Moore (Convener) et al., *Human Health as Affected by the Ocean*, 2 THE SECOND WORLD OCEAN ASSESSMENT 1, 33 (2021); X.R. Chang et al., *Potential Health Impact of Env't Micro- and Nanoplastics Pollution*. 40 J. APPLIED TOXICOLOGY 4, 5-11 (2020); Mohamed S. Numan et al., *Impact of Air Pollutants on Oxidative Stress in Common Autophagy-Mediated Aging Diseases*, 12 INT'L J. ENV'T RES. & PUB. HEALTH 2289, 2295-98 (2015).

3. See Alistair McIlgorm et al., *The Economic Cost and Control of Marine Debris Damage in the Asia-Pacific Region*, 54 OCEAN & COASTAL MGMT. 643, 644 (2011); see generally A. McILGORM ET AL., UPDATE OF 2009 APEC REPORT ON ECONOMIC COSTS OF MARINE DEBRIS TO APEC ECONOMIES (2020).

4. Impacts on marine life include entanglement and ingestion of plastic marine litter. See generally JOINT GROUP OF EXPERTS ON THE SCI. ASPECTS OF MARINE ENV'T PROT. (GESAMP), SOURCES, FATE AND EFFECTS OF MICROPLASTICS IN THE MARINE ENVIRONMENT (Peter J. Kershaw & Chelsea M. Rochman, eds. 2016); JOINT GROUP OF EXPERTS ON THE SCI. ASPECTS OF MARINE ENV'T PROT. (GESAMP), GUIDELINES FOR THE MONITORING AND ASSESSMENT OF PLASTIC LITTER AND MICROPLASTICS IN THE OCEAN (Peter J. Kershaw et al., eds. 2019).

5. Jambeck et al., *supra* note 1, at 768; see also EVA ALESSI & GIUSEPPE DI CARLO; OUT OF THE PLASTIC TRAP: SAVING THE MEDITERRANEAN FROM PLASTIC POLLUTION 8 (2018); Christopher Pham et al., *Marine Litter Distribution and Density in European Seas, from the Shelves to Deep Basins*, 9 PLOS ONE 1, 9 (2014).

6. Approximately sixty percent of the plastics produced since 1950 has ended up in the natural environment. See Roland Geyer et al., *Production, Use, and Fate of All Plastics Ever Made*, 3 SCI. ADVANCES 1, 3 (2017).

and 2015 has been recycled globally.⁷ The primary source of plastic waste is the packaging sector, followed by consumer and institutional products, and the textiles sector.⁸

The economic implications of plastic pollution are rooted in the production and trade of plastics, whereby upstream activities⁹ influence downstream¹⁰ plastic pollution. In addition, the sources of plastic pollution are not only diffused across sectors, but also across countries and products, increasing the complexity of global trading arrangements.¹¹ Therefore, a global response in the form of a legally binding treaty is needed, which has been recognized by the international community.¹² What role does trade play in this context and how can it contribute to these developments? How may trade address existing gaps in the regulatory framework?

In order to assess these questions and emphasize the role of trade, this article will focus on the case of plastic waste, its applicable legal framework, and the relationship and options for cooperation between its regimes. Although trade occurs along the entire plastics life-cycle,¹³ the waste phase is currently the most regulated under international law, which is why it can provide important insights relevant to provisions of an international plastics treaty. The trade in plastic waste is of a transboundary nature, and its regulation through restrictions and bans impacts international trade. Waste trade, therefore, primarily interferes with regimes of international environmental law and the rules of the multilateral trading system, depicting a fragmented, sometimes conflicting, legal landscape.

7. *Id.* at 2-3.

8. See ROLAND GEYER, PROD., USE, AND FATE OF SYNTHETIC POLYMERS 18 (Trevor M. Letcher, ed. 2020).

9. These include production and consumption of plastic end-products. See Diana Barrowclough & Carolyn Deere Birkbeck, *Transforming the Global Plastics Economy: The Political Economy and Governance of Plastics Production and Pollution* 3-7 (Glob. Econ. Governance, Working Paper No. 142, 2020).

10. This includes activities such as waste management, recycling and incineration processes. *Id.*

11. See Peter Dauvergne, *Why is the Global Governance of Plastic Failing the Oceans?*, 51 GLOB. ENV'T CHANGE 22, 23-25 (2018).

12. In 2020, more than half of the United Nations' member states expressed an interest in exploring the option of a new global agreement on marine plastic pollution. See GRID-ARENDAL, EXPLORING THE OPTION OF A NEW GLOBAL AGREEMENT ON MARINE PLASTIC POLLUTION: A GUIDE TO THE ISSUES 13 (2021).

13. This includes, among other things, plastic pellets that are being traded for processing purposes, the trade of semi-processed and fully processed plastic parts for assembly, assembled plastic goods, and post-consumer plastic waste. See Dauvergne, *supra* note 11, at 25.

While the international environmental regime provides the current framework for discussions on an International Plastics Treaty, the role of the trade regime is often neglected and has only recently entered these discussions. In this vein, this article argues that an international plastics treaty must be compatible with international trade law, which requires joint cooperation between legal regimes in order to recognize the role of economic instruments in complementing regulatory measures. It will further be argued that this global response also requires a diverse set of stakeholders and policy-makers in order to effectively address the global plastics problem. This work therefore recognizes the need for an integrated approach that includes the entire plastics value chain to effectively address the global plastics problem. Because such an assessment is outside the scope of this article, the waste phase will be the primary focus of this work. Moreover, due to the assessment of economic instruments and trade-related policies, this article will exclude the role of fiscal instruments, such as those provided by development banks and financial institutions.

A review of the relevant literature reveals that although scholars within the field of public international environmental law and law of the sea have significantly published on the regulatory aspects of marine plastic pollution and their respective field,¹⁴ this has not found similar attention among scholars researching within the remit of trade law. The objective of this article is to contribute to closing the identified knowledge gap by emphasizing the role of trade in governing marine plastic pollution and its contributing fragmentation and asymmetry, in addition to providing a first stocktaking on the issue and on the existing literature. This analysis was completed almost entirely through a desktop study, relying on sources of

14. Proposals range from action plans, to a new environmental agreement, to improved application of instruments of the Law of the Sea. See Barrowclough & Deere Birkbeck, *supra* note 9, at 43; see also Marcus Haward, *Plastic Pollution of the World's Seas and Oceans as a Contemporary Challenge in Ocean Governance*, 9 NATURE COMM'NS 667 (2018); Nils Simon & Maro Luisa Schulte, *Stopping Global Plastic Pollution: The Case for an International Convention*, 43 PUBL'N SERIES ECOLOGY 1 (2017); Karen Raubenheimer & Alistair Mellgorm, *Can the Basel and Stockholm Conventions Provide a Global Framework to Reduce the Impact of Marine Plastic Litter?*, 96 MARINE POL'Y 285 (2018); *Special Issue Articles: Plastics Regulation*, 27 REVIEW OF EUROPEAN, COMPARATIVE AND INTERNATIONAL ENVIRONMENTAL LAW 210 (2018).

international law,¹⁵ soft law,¹⁶ unilateral acts such as submissions by World Trade Organization (WTO) member states, and grey literature.

The article is divided into five sections. Part II will provide an overview of the topic of this article and set the context for the trade policies and economic instruments outlined in Part III, which will assess the response in the form of the existing legal framework regulating plastic waste trade and the interaction between those regimes. Part IV will outline how these findings can contribute to an international response by addressing challenges pertaining to the current negotiations on an international plastics treaty and opportunities for cooperation. Part V will conclude by summarizing the most important results with regard to the introductory question and outline the way forward.

I. TRADE-RELATED POLICIES AND ECONOMIC INSTRUMENTS AS A RESPONSE TO PLASTIC POLLUTION

As has been outlined in the introductory section, the role of trade at the trade-plastic nexus has been mostly neglected at the international level in the past.¹⁷ The effects of plastic pollution have led to different unilateral measures¹⁸ that are being introduced at the national level in order to address the problem of plastic pollution. These measures in turn can impact international trade, a concern that has been raised by developing states, which fear that trade-related climate policies will affect trade efforts, sustainable development, and could be disguised protectionist

15. According to Article 38(1) of the Statute of the International Court of Justice (ICJ) these include international treaties, customary law, general principles, judicial decisions and the works of publicists (academics).

16. Soft law, as expressed through declarations and guiding principles, among other forms, presents an alternative in areas where states are unwilling to commit to legally-binding agreements. *See* KNUT IPSEN, *VÖLKERRECHT* 1065 (7th ed., 2018).

17. While plastic pollution has been the subject of environmental discussions since the 1950s, the topic has only recently started to be assessed by scholarly works, mainly focusing on understanding and measuring plastic leakage into the oceans and its environmental and public health impacts. *See* Diana Barrowclough et al., *Global Trade in Plastics: Insights From the First Life-Cycle Trade Database 7* (UNCTAD, Research Paper No. 53, 2020).

18. About 130 trade measures addressing plastic pollution were notified to the WTO between 2009 and 2019, two thirds of them alone in the past four years. *See How Cooperation on Trade Can Help Tackle Plastic Pollution*, UNCTAD (Sept. 3, 2021), <https://unctad.org/news/how-cooperation-trade-can-help-tackle-plastic-pollution> [<https://perma.cc/QF9R-STW2>].

measures.¹⁹ The notifications of such measures at the WTO aiming to reduce plastic pollution have proven to vary with regard to members' development status, as developed states introduce measures in the form of technical regulations or specifications, whereas developing countries use import licenses or bans, and least developed countries introduce conformity assessment procedures. Drawing from this background, a number of economic instruments and trade-related policies have been introduced in order to address the problem of plastics pollution.

A. Trade Policies and Economic Instruments at Different Levels of Governance

Legislation aiming to reduce plastic pollution can be divided into different types of measures. The two main categories are 1) command-and-control measures and 2) market-based economic measures.²⁰ Voluntary measures make up a third category.²¹ Command-and-control measures apply a regulatory approach expressed through the adoption of legislation that bans or prohibits the use, import or production of plastic products or plastic-related activities, or by imposing the use of certain required technologies.²² An example in that regard is the adoption of standards for port reception facilities and waste storage.²³ Market-based economic measures provide financial incentives and disincentives to influence actors' behavior, allowing for a more flexible approach on how to manage and reduce plastic pollution.²⁴ In contrast to command-and-control measures, economic instruments internalize environmental costs through pricing the use or consumption of plastic products; therefore, they can minimize the generation of plastic waste, if policy makers deem the implementation of market-based instruments effective and cost-efficient.²⁵

19. C. Deere Birkbeck, *Trade Ministers Must Pull Their Weight on Climate Action*, CHATHAM HOUSE (Oct. 8, 2021), <https://www.chathamhouse.org/2021/10/trade-ministers-must-pull-their-weight-climate-action> [<https://perma.cc/2QDE-VYDJ>].

20. Schuyler et al., *Economic Incentives Reduce Plastic Inputs to the Ocean*, 96 MARINE POL'Y 250, 250 (2018).

21. Although Schuyler et al., *id.*, do not discuss voluntary measures, this article will include these, because not only have they been implemented on a sub-national and national level, but also constitute a way to tackle plastic pollution.

22. F. Oosterhuis et al., *Economic Instruments and Marine Litter Control*, 102 OCEAN & COASTAL MGMT. 47, 49 (2014).

23. *Id.* at 48.

24. See Schuyler et al., *supra* note 20, at 250; see also Oosterhuis et al., *supra* note 22, at 49.

25. Oosterhuis et al., *supra* note 22, at 49.

Incentives include deposit-refund schemes, subsidies, and preferential treatments, among others.²⁶

Incentives, although in some cases costlier to execute, avoid negative consequences, such as illegal discharge that could result from taxes on disposal activities, which in turn constitute a disincentive.²⁷ They also allow for an increased recovery of materials.²⁸ Their effectiveness was pointed out in a study on small incentives in Australia and the United States of America (U.S.) in the context of waste management.²⁹

Disincentives, on the other hand, can be beneficial as they create revenue that can be used to finance specific plastic pollution projects, and they can be “levied at different points in the value chain.”³⁰ Apart from disposal taxation, examples of disincentives include financial penalties, such as on the illegal disposal of marine litter in the Asia-Pacific region; fines with regard to individual improper discard of waste; and levies, such as those placed on plastic bags which are aimed at disincentivizing the purchase and use of plastic bags that later become plastic waste.³¹ Further taxation options include the introduction of sector-specific environmental taxes, such as tourist taxes, landfill taxes, and a tax on packaging waste that applies to environmental services rather than the product itself.³²

Voluntary measures include producer responsibility schemes or extended producer responsibility (EPR)³³ through voluntary agreements based on formal promises, without any enforcement between governments and producers;³⁴ voluntary deposit refund systems organized by companies or consumer groups,³⁵ and voluntary peer-learning, sharing of

26. *Id.*

27. Schuyler et al., *supra* note 20, at 250; *see also* A. McIlgorm et al., *The Economic Cost and Control of Marine Debris in the Asia-Pacific Region*, 54 OCEAN & COASTAL MGMT. 643, 648 (2011).

28. Schuyler et al., *supra* note 20, at 250.

29. *Id.* at 251-52. The study revealed that incentives with a minimum deposit of five to ten cents through container deposit legislation (CDL), or cash for containers, were already effective in reducing waste. *Id.* at 254.

30. Oosterhuis et al., *supra* note 22, at 51.

31. *Id.* at 49; *see also* McIlgorm et al., *supra* note 27, at 648-49.

32. PATRICK TEN BRINK ET AL., IEEP, GUIDELINES ON THE USE OF MARKET-BASED INSTRUMENTS TO ADDRESS THE PROBLEM OF MARINE LITTER 26 (2009).

33. *See* Andrew Forrest et al., *Eliminating Plastic Pollution: How a Voluntary Contribution From Industry Will Drive the Circular Plastics Economy* 6 FRONTIERS IN MARINE SCI. 1, 4 (2019).

34. For the case of Denmark, *see* MAGNUS HENNLOCK ET AL., ECONOMIC POLICY INSTRUMENTS FOR PLASTIC WASTE 34, 37, 47, 81 (2014).

35. *See* ALESSIO D'AMATO ET AL., EUROPEAN TOPIC CENTRE ON WASTE AND MATERIALS IN A GREEN ECONOMY, PLASTIC WASTE TRADE AND THE ENVIRONMENT 39

best practices, and private sector engagement to acquire more information on consumer concerns.³⁶

With regard to the international trade of plastic waste, the most common measures have been national import restrictions and bans, which are command-and-control measures, due to the urgency of the problem.³⁷ The most prominent example of a domestic ban was the 2018 ban by the People's Republic of China (PRC) on the import of plastic waste.³⁸ At the local level, municipal ordinances have been adopted, and many countries have introduced non-tariff policies in order to set incentives for local producers or exporters, with implications for international trade, even when justified under WTO rules.³⁹ Some communities have also introduced social licenses to operate (SLO) and self-regulatory measures in the private sector through corporate or environmental social responsibility policies.⁴⁰ Since single-use plastics make up the largest proportion of marine litter,⁴¹ many governments have reacted with environmental-related regulatory measures, such as bans of plastic bags.

Where regulatory measures fail or do not seem to be the most effective choice, certification and labeling systems, such as product certificates and eco labels, provide an alternative as they directly address the market and

(2019); MAGNUS HENLOCK ET AL., *ECONOMIC POLICY INSTRUMENTS FOR PLASTIC WASTE* 88 (2014).

36. See ALESSIO D'AMATO ET AL., *EUROPEAN TOPIC CENTRE ON WASTE AND MATERIALS IN A GREEN ECONOMY, PLASTIC WASTE TRADE AND THE ENVIRONMENT* 39-40 (2019); MAGNUS HENLOCK ET AL., *ECONOMIC POLICY INSTRUMENTS FOR PLASTIC WASTE* 56 (2014).

37. See Oosterhuis et al., *supra* note 22, at 49. The authors argue that the deployment of command-and-control-measures trumps the deployment of economic instruments in cases of urgency, although following the economic rationale, market-based instruments represent a more cost-efficient choice and internalization of external environmental costs. *Id.* at 49.

38. MINISTRY OF ECOLOGY AND ENVIRONMENT OF CHINA, *ANNOUNCEMENT ON ISSUING THE CATALOGUE OF IMPORTED WASTE MANAGEMENT* (2017) (Announcement No. 39 of 2017). The PRC's import ban was notable for the waste industry due to its curbing of trade flows. See Michelle Langrand, *A New Global Treaty to Tackle Plastic Pollution?* GENEVA SOLUTIONS (Mar. 1, 2021), <https://genevasolutions.news/sustainable-business-finance/a-new-global-treaty-to-tackle-plastic-pollution> [<https://perma.cc/B67E-U9UF>].

39. See S. Evenett & J. Fritz, *The WTO's Next Work Programme—As If the Global Economic Crisis Really Mattered* 7-9 (Ctr. for Econ. Pol'y Rsch, Discussion Paper 12412, 2017); see generally Director-General, Trade Policy Review Body, *Overview of Developments in the International Trading Environment*, WTO Doc. WT/TPR/OV/20 (Nov. 16, 2017).

40. See Joanna Vince & Britta D. Hardesty, *Governance Solutions to the Tragedy of the Commons That Marine Plastics Have Become*, 5 *FRONTIERS IN MARINE SCI.* 1, 5-6 (2018).

41. See ANNA MARIA ADDAMO ET AL., *TOP MARINE BEACH LITTER ITEMS IN EUROPE* 30-38 (2017).

its consumers.⁴² Thus, a Plastics Stewardship Council similar to the Marine Stewardship Council has been suggested to tackle the problem of plastic pollution.⁴³ Although this process bears the risk of less stringency than if created solely by government authorities, such a Council would have to be based on scientific standards, and created and agreed upon by different stakeholders in order for it to serve as a legitimate and effective instrument.⁴⁴

With regard to exports of plastic wastes, tariffs, non-tariff barriers, treatment capacity, legislation, and classification have proven to be influential factors.⁴⁵ However, the governance structures for waste management are often decentralized, leaving the task of waste management to the sub-national, local or sub-district level, such as the city or village which, without the necessary capacities and tools, makes adoption to rapid system change and sharing of best practices a difficult task.⁴⁶ In this regard, trade may play an important role by engaging local businesses in operating community waste management facilities and trade recyclables. Recognizing the role of informal waste collection can be part of the solution, by creating a value for recycling through incentives such as price support and recycling schemes.⁴⁷

As has been shown, there are many different regulatory, economic, and voluntary options for addressing the problem of plastic pollution. More importantly, which instrument to deploy depends on different factors. Such factors include how centralized the governance structure is, the level of effectiveness and cost-efficiency that is attributed to each of the tools, the level of responsiveness of civil society and the private sector to incentives, voluntary commitments, and available capacities of each

42. See generally Tavis Potts & Marcus Haward, *International Trade, Eco-Labeling, and Sustainable Fisheries - Recent Issues, Concepts and Practices*, 9 ENV'T., DEV., SUSTAINABILITY 91 (2007).

43. Micah Landon-Lane, *Corporate Social Responsibility in Marine Plastic Debris Governance*, 127 MARINE POLLUTION BULL. 310, 314 (2018).

44. See HARD CHOICES, SOFT LAW: VOLUNTARY STANDARDS IN GLOBAL TRADE, ENVIRONMENT AND SOCIAL GOVERNANCE 6 (John J. Kirton & Michael J. Trebilcock eds., 2016).

45. *The Plastic Waste Trade in the Circular Economy*, EUROPEAN ENVIRONMENT AGENCY (Oct. 28, 2019) (modified on Mar. 9, 2021) <https://www.eea.europa.eu/publications/the-plastic-waste-trade-in> [<https://perma.cc/H5MQ-M5RV>]. Non-tariff barriers include gate fees at treatment facilities, transport costs, environmental taxes and policy stringency.

46. See M.R. Stuchtey et al., *Project STOP: City Partnerships to Prevent Ocean Plastics in Indonesia*, 19 JOURNAL OF FIELD ACTIONS 86, 89 (2019).

47. See *id.* at 90.

country.⁴⁸ The variety of regulatory, economic and voluntary tools also reveals the importance of addressing the issue in a holistic manner, as these instruments are linked to different segments of the plastics value chain and thus influence downstream and upstream activities alike. A holistic approach includes a reduction of plastic consumption, the creation of eco-designs and substitutes, improvements in waste collection and management, recycling targets for municipal waste, waste processing and recycling systems, the adoption of remanufacturing initiatives, and the coordination of policy investments in the waste sector.⁴⁹

The holistic approach also includes different sectors, such as informal waste collection, the trading system, and state-based or community waste management systems, and would benefit from engagement of a variety of stakeholders, such as representatives from the industry, governments and civil society groups.⁵⁰ This has also expanded interest in a circular economy approach to plastics, which aims to shift the linear steps of production, use, and disposal towards a design, use, re-design and re-use approach in order to create a closed-loop. It includes a preventative approach, where trade can provide opportunities, such as through supply chain investments.⁵¹ The circular economy approach has been solidified in policy frameworks, such as the European Union (EU) Circular Economy Financing Platform,⁵² formed to identify main challenges and obstacles for

48. See Oosterhuis et al., *supra* note 22, at 53.

49. See Moore et al. *supra* note 2, at 168; see also Stuchtey et al., *supra* note 43, at 89; see generally Patrick ten Brink et al., *T20 Task Force Circular Economy: Circular Economy Measures to Keep Plastics and Their Value in the Economy, Avoid Waste and Reduce Marine Litter*, G20 GERMANY 2017: THINK 20 DIALOGUE (2017).

50. As has been reflected in the World Economic Forum Expert Group discussing the role of trade in combating plastic pollution. See Kristin Hughes & Kimberly Botwright, *Trade Barriers Are Slowing Plastic-Pollution Action. Here's How to Fix This*, WORLD ECONOMIC FORUM (July 29, 2020), <https://www.weforum.org/agenda/2020/07/trade-barriers-are-slowing-action-on-plastic-pollution-here-s-how-to-fix-that/> [<https://perma.cc/2YST-JEH7>].

51. See ELLIE MOSS ET AL., ENCOURAGE CAPITAL, SEA OF OPPORTUNITY, SUPPLY CHAIN INVESTMENT OPPORTUNITIES TO ADDRESS MARINE PLASTIC POLLUTION 27-28 (2017); see generally WORLD ECONOMIC FORUM, THE NEW PLASTICS ECONOMY, RETHINKING THE FUTURE OF PLASTICS (2016).

52. European Commission, *Report From the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Implementation of the Circular Economy Action Plan*, at 7, COM (2017) 33 final (Jan. 26, 2017); European Commission, *Communication From the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Circular Economy Action Plan For a Cleaner and More Competitive Europe*, at 2, COM (2020) 98 final (Mar. 11, 2020).

circular economy initiatives, and the EU Circular Plastics Alliance⁵³ that brings together key industry stakeholders from the full plastics value chain to reduce plastics littering, increase the share of recycled plastics, and stimulate market innovation.

In reality, an asymmetric landscape of measures deployed by different actors has emerged that needs to be harmonized and coordinated at the international level in order to properly address the issue of plastic pollution. Moreover, governance decisions in one state impact trade and the environment of another state, as in the case of environmental taxes that may lead to results of decreased plastic pollution in one country but lead to the relocation of plastic consumption and production in another country, thus not affecting the overall generation of plastic pollution.⁵⁴ In this context, the PRC's import ban provides a good example as plastic waste imports have increased in surrounding countries of the region due to relocation of the problem. Thus, international harmonization and coordination must be done in a consistent and coherent manner. The need for such progress at the international level becomes apparent from the nature of the plastic pollution problem, which is not only a cross-sectoral but a transboundary issue, as has been outlined in the introductory part. This in turn limits the impact of the different measures adopted by each individual country and affects the entire international community through the globalized nature of trade and the economy of plastics. Therefore, the next section will assess developments at the international level in providing a response to the issue at stake.

B. Assessing the Development at the International Level: Towards a Legally Binding Plastics Treaty

With regard to the trade-plastic-nexus, developments at the international level have recently occurred through the newly published Life-Cycle Plastic Trade Database by the UN Conference on Trade and Development (UNCTAD),⁵⁵ which provides essential information on the global trade of plastics. The database reveals that global plastic trade is at

53. See generally E. WATKINS ET AL., SUPPORT TO THE CIRCULAR PLASTICS ALLIANCE IN ESTABLISHING A WORK PLAN TO DEVELOP GUIDELINES AND STANDARDS ON DESIGN-FOR-RECYCLING OF PLASTIC PRODUCTS 24 (H. Saveyn & E. Garberino, eds., 2020).

54. See Oosterhuis et al., *supra* note 22, at 53.

55. UNCTAD Stat, UNCTAD, <https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx> [<https://perma.cc/SL7Y-QU8S>] (last visited Mar. 31, 2022) (this is a database that tracks and categorizes trade across the life cycle of plastics).

least 40% higher than previously thought.⁵⁶ It provides information on tracking and tracing processes of the plastics life cycle and serves as a basis for orientation of countries when taking measures.

Further development providing trade-specific orientation that includes engagement of the multilateral trade system is still sparse. One particular development in that regard has been the recent launch of the WTO Informal Dialogue on Plastics Pollution (IDP) that, since its creation, has quadrupled discussions relating to plastic pollution at the WTO.⁵⁷ Although the IDP does not provide a formal setting for negotiations and is still conducted by only a small number of WTO members, it has begun to include trade in plastics and goods that incorporate plastics in discussions and emphasized the role of trade policies.⁵⁸

For the most part, developments at the international level have been taking place through initiatives and projects in other regimes, inside and outside the United Nations (UN) system. A large number of plastic initiatives has emerged, ranging from engagement of smaller groups of states, such as the Group of Seven or the Group of Twenty, to UN organizations, such as the International Maritime Organization and the United Nations Environment Programme (UNEP), to programmes of regional actors, such as the EU and the Association of Southeast Asian Nations working group on Coastal and Marine Environment.⁵⁹ Similar to the wide number of regulatory, economic and voluntary instruments as outlined in the section above, the number of global initiatives addressing plastic pollution focus on individual phases of the plastics life-cycle, such as those linked to design, production or consumption.⁶⁰

Yet, an agreement that includes a binding commitment to prevent and reduce plastic waste is still missing and no institution at the international level is presented with a clear mandate to coordinate adequate policies

56. *Global Plastic Trade 40% Bigger Than Previously Thought, Study Finds*, UNCTAD (Mar. 3, 2021), <https://unctad.org/news/global-plastic-trade-40-bigger-previously-thought-study-finds> [<https://perma.cc/7MRC-KX35>].

57. *Ministerial Conference on Marine Litter and Plastic Pollution Opening Remarks by DDG Paugam*, WTO (Sept. 1, 2021), https://www.wto.org/english/news_e/news21_e/ddgjp_01sep21_e.htm [<https://perma.cc/SD6W-AUSX>].

58. *WTO Deputy Director-General Shows the Long and Important Relationship Between Ocean Conservation and World Trade*, IUCN (Sept. 14, 2021), <https://www.iucn.org/news/marine-and-polar/202109/wto-deputy-director-general-shows-long-and-important-relationship-between-ocean-conservation-and-world-trade> [<https://perma.cc/TP92-NV9G>].

59. See IEVA RUČEVSKA & PATRICIA VILLARRUBIA-GÓMEZ, GRID-ARENDA, INVENTORY OF GLOBAL AND REGIONAL PLASTIC WASTE INITIATIVES 10-20 (2021) (showing a complete list of plastic waste initiatives).

60. See *id.* at 5.

with regard to plastic pollution.⁶¹ Therefore, the above-mentioned international institutions inside and outside the UN system have tried to address this regulatory gap. Efforts to coordinate and align the variety of regulatory, economic and voluntary instruments deployed by different countries have not only led to a multitude of global initiatives and approaches, but also to narrower focuses on specific dimensions of the plastic pollution problem in relation to the respective mandate of the international organization. Therefore, voices for a comprehensive global treaty addressing plastic pollution have become louder at the international level in order to overcome these fragmented and isolated approaches.

The initiative for an international plastics treaty is to be expected at the upcoming fifth session of the UN Environment Assembly (UNEA 5.2).⁶² Although those voices of the international community have recognized the need for an international agreement on plastics, many states and stakeholders are debating on its precise mandate and scope. Some have focused on including strict regulatory provisions, such as trade restrictions and plastic material bans, applying the same approach of certain Multilateral Environmental Agreements (MEAs), in particular the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal⁶³ or the Montreal Protocol on Substances that Deplete the Ozone Layer,⁶⁴ to the case of an international plastics treaty.⁶⁵ A design of such an agreement after the Montreal Protocol would commit state parties to end the use of a particular plastic material by banning it over a timeframe that states would regularly have to report

61. See Dauvergne, *supra* note 11, at 22.

62. A Ministerial Statement following the Ministerial Conference on Marine Litter and Plastic Pollution organized by the governments of Ecuador, Germany, Ghana and Viet Nam stated the objective to establish an Intergovernmental Negotiating Committee on Marine Litter and Plastic Pollution at the upcoming UNEA-5.2 with the aim to achieve a new Global Agreement. See Ministerial Conference on Marine Litter and Plastic Pollution, *Ministerial Statement*, ¶ 7 (Sept. 2, 2021), <https://conferencemarinelitterplasticpollution.org/documents/> [https://perma.cc/4G2D-PF4P].

63. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, March 22, 1989, 1673 U.N.T.S. 57 [hereinafter Basel Convention].

64. Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3 [hereinafter Montreal Protocol].

65. This includes the suggestion to apply bans on single-use and other environmentally harmful plastic materials that are currently being restricted or banned at the domestic level in order to ensure their trade is restricted. See World Trade Organization Informal Dialogue on Plastics Pollution Meeting, *Unofficial Room Document: Statement by Carolyn Deere Birkbeck, Director, Forum on Trade, Environment & The SDGs (TESS)*, WTO Doc. INF/TE/IDP/RD/15, at 3 (July 21, 2021).

on.⁶⁶ This approach, when applied to plastics, would directly target plastics production, which is based on virgin plastics, in order to tackle the lack of recycling and environmental effects of plastic pollution. Although important, it only covers one aspect of the value chain and not the entire life cycle of plastics.

Drawing from the findings of the section on trade policies and economic instruments, a treaty should reflect a holistic approach that recognizes the need to address the complete plastic life cycle, should involve state and non-state actors in the process, and should recognize the importance of community- and market-based instruments. This could be expressed through state obligations covering the entire life cycle of plastics, committing states to take on a multi- and cross-sectoral approach by including waste system and recycling capacities, production, and design in their policies and instruments. A treaty would therefore have to reflect the principle of equity by establishing a mechanism for sharing of information and technology.⁶⁷

Trade can help to increase the availability of technology, much in the same way as the amendments to the Montreal Protocol helped further the negotiation process because substitutes for chlorofluorocarbons were made available.⁶⁸ This approach can be applied to negotiations on plastics, where the availability of substitutes could become a contributing factor to reach agreement at the international level.⁶⁹ Although not particularly focused on in this article, this also implies a role for trade in facilitating technology availability through financial aid and finance mechanisms.

In order for treaty negotiations to succeed, shared interests on the topic of plastic pollution have to be developed and diverging interests must be aligned. Trade-related negotiations have provided a first step in that regard, as expressed in the launch of the WTO IDP, but must be furthered

66. See Elizabeth A. Kirk, *The Montreal Protocol or the Paris Agreement as a Model for a Plastics Treaty?*, 114 AJIL 212, 214, 216 (2020); see also Elizabeth A. Kirk & Naporn Popattanachai, *Marine Plastics: Fragmentation, Effectiveness and Legitimacy in International Law-Making*, 27 REVIEW OF EUROPEAN, COMPARATIVE AND INTERNATIONAL ENVIRONMENTAL LAW 222, § 3.2.2 (2018); Karen Raubenheimer & Alistair McIlgorm, *Is the Montreal Protocol a Model that can Help Solve the Global Marine Plastic Debris Problem?*, 81 MARINE POLICY 322, 326 (2017).

67. Similar mechanisms for financial and technological transfer have been established by Article 9 of the Paris Agreement and Article 10 of the Montreal Protocol.

68. See Katharina Kummer Peiry, *Triggers for Treaty Negotiations: Could Lessons from Environmental Protection Inform a Prospective Pandemic Treaty?*, BMJ (Nov. 26, 2021), <https://www.bmj.com/content/bmj/375/bmj-2021-068903.full.pdf> [<https://perma.cc/9TWK-J6AZ>].

69. However, the development and availability of substitutes needs to prevent the production of equally harmful materials. See Kirk, *supra* note 63, at 216.

in order to overcome trade barriers and negative effects of environmental measures on trade relations. The current development towards such an international agreement on plastics does not display any particular focus on including trade-related aspects. Therefore, the interaction and cooperation between different regimes must be discussed as an alternative way to move forward on the plastic-trade-nexus. This will be assessed in the subsequent section by applying the case of plastic waste trade.

II. THE CASE OF PLASTIC WASTE TRADE: APPLICABLE LEGAL FRAMEWORK AND THE PLASTIC-TRADE-NEXUS

Since no binding treaty or mechanism governing the issue of marine plastic pollution has been established yet, its regulation is taking place through different legal regimes. With regard to the marine environment, these include the United Nations Convention on the Law of the Sea (UNCLOS),⁷⁰ the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter,⁷¹ the London Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter,⁷² and the Basel Convention. The latter is currently the only existing international treaty regulating the transboundary movement of hazardous plastic waste. This chapter will outline the way trade has been included in this legal framework and the relationship between the trade regime and the Basel Convention, as a MEA.

A. International Trade Law

International trade is shaped by a complex international regulatory framework, including the multilateral trading system defined by the General Agreement on Tariffs and Trade (GATT)⁷³ and the WTO, and shaped by plurilateral trade agreements like the Fourth and Fifth Protocols

70. UN Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

71. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, 26 U.S.T. 2403, 1046 U.N.T.S. 120.

72. Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Nov. 7, 1996, 36 I.L.M. 1 (1997).

73. General Agreement on Tariffs and Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187, 33 I.L.M. 1153 (1994) [hereinafter GATT 1994].

under the General Agreement on Trade and Services (GATS)⁷⁴ on telecom and financial services.⁷⁵ Apart from trade liberalization, other aspects have shaped the field of international trade, such as environmental and sustainable development considerations, as expressed in the launch of the Doha Development Agenda⁷⁶ and WTO provisions on special and differential (S&D) treatment for developing countries.⁷⁷ Although these aspects have not resulted in an overall mandate by the WTO, similar developments have gained momentum and appeared in the form of initiatives inside and outside the WTO, such as the 2020 Trade and Environment Week⁷⁸ and the recent launch of the WTO IDP.

The trade regime has recognized the need for environmental protection, as expressed in Article XX of the GATT, but must also ensure compatibility of trade-related environmental and regulatory measures. This includes the option of introducing and implementing measures in accordance with international trade principles of fairness, reciprocity, non-discrimination and transparency. This is to avoid conflicts when states are faced with the decision to either opt for environmental protection affecting international trade or to not adopt environmental measures because they interfere with trade rules that in turn aggravate the effects of plastic pollution.⁷⁹

Under international trade law, waste trade can appear as trade in goods, in which case the GATT applies, or as trade in services, in which case the GATS applies. In the first case, waste would have to be defined

74. General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183, 33 I.L.M. 1167 (1994) [hereinafter GATS].

75. Four plurilateral agreements that are underway include the topics of e-commerce, environmental goods, investment facilitation and trade in services. See Gary Clyde Hufbauer, *Focused Trade Agreements Can Sustain the WTO in Time of Economic Nationalism*, PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS, (Apr. 12, 2021) <https://www.piie.com/blogs/realtime-economic-issues-watch/focused-trade-agreements-can-sustain-wto-time-economic> [<https://perma.cc/2KR6-2SYT>].

76. See JOHN J. KIRTON & MICHAEL J. TREBILCOCK, *HARD CHOICES, SOFT LAW: VOLUNTARY STANDARDS IN GLOBAL TRADE, ENVIRONMENT AND SOCIAL GOVERNANCE* 3 (2016).

77. See WTO Secretariat, *Special and Differential Treatment Provisions in WTO Agreements and Decisions*, Committee on Trade and Environment, WTO Doc. WT/COMTD/W/258 (Mar. 2, 2021).

78. *WTO Trade and Environment Week 2020*, WTO, https://www.wto.org/english/tratop_e/envir_e/tedweek2020_e.htm [<https://perma.cc/RBB6-B5Q3>] (last visited April. 7, 2022).

79. See F. Lachmann et al., *Marine Plastic Litter on Small Island Developing States (SIDS): Impacts and Measures*, Report No. 2017:4 SWEDISH INSTITUTE FOR THE MARINE ENVIRONMENT 1, 39 (2017).

as a good. In accordance with the Harmonized System (HS) that was established by the World Customs Organization, where waste is defined as a subcategory of specific goods and is therefore listed as an object under the HS, waste classifies as a good and the GATT therefore applies.⁸⁰ Transboundary trade of waste for disposal or recovery could classify as a service if the waste management activity itself is in question instead of the material that classifies waste as a good. Art. I:3 (b) of GATS approaches the term service as any service in any sector, and Art. XXVIII (c) of GATS includes aspects such as purchase, payment or use of service. However, no comprehensive definition of the term exists.⁸¹

B. The Basel Convention

There are over 250 MEAs currently in force, of which about 20 contain provisions or measures affecting trade.⁸² These trade measures aim to protect, by control, human health and the environment, as in the case of the Basel Convention,⁸³ which is the only international treaty that regulates the transboundary movements of hazardous and other wastes. This affects trade through a restriction and ban of import and export of certain types of waste, listed in the Annexes to the Convention. As per Art. 4(9) of the Convention, state parties are committed to only trade hazardous waste if its environmentally sound management cannot be guaranteed in the exporting country and if it is needed for recycling or recovery purposes in the destination country. Shipment to other members of the agreement is only permitted if those state parties have not banned the import, if they consent prior to the import through writing, and as per Art. 6 of the Convention, if the environmentally sound management is documented.⁸⁴ Where this is not the case, import or export of wastes must be prevented.

80. See MIRINA GROSZ, SUSTAINABLE WASTE TRADE UNDER WTO LAW: CHANCES AND RISKS OF THE LEGAL FRAMEWORKS' REGULATION OF TRANSBOUNDARY MOVEMENTS OF WASTES 255 (2011).

81. See *id.* at 262.

82. *The Doha Mandate On Multilateral Environmental Agreements (MEAs)*, WTO, https://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm [<https://perma.cc/PD97-9D3U>] (last visited April 7, 2022).

83. U.N. Env't Programme Basel Convention, Sixth Meeting of the Conference of the Parties to the Basel Convention, *Decision: Cooperation with the World Trade Organization*, UN Doc. UNEP-CHW-COP.6-BC-VI-30 (Dec. 8-14, 2002).

84. See UNEP & INT'L. INST. FOR SUSTAINABLE DEV., ENVIRONMENT AND TRADE 20 (2d ed. 2005).

Furthermore, a general import and export ban to non-parties is imposed.⁸⁵ This is being accomplished through licensing systems for hazardous wastes. Further trade measures of the Convention relate to the monitoring of international trade and the prevention of illegal trade of hazardous waste. The Convention applies the principles of prevention and transparency, as expressed in the prior informed consent procedure (PIC).⁸⁶ Its adoption was also an expression of the consensus that waste disposal from developed countries to developing countries was perceived as unethical.⁸⁷

The 2019 Plastic Waste Amendments to the Basel Convention,⁸⁸ which entered into force in the beginning of 2021, amended the Convention in order for it to cover certain types of plastics.⁸⁹ Prior to their adoption, plastic waste was traded as low-risk or no-risk waste commodities. The 2019 Amendments followed quickly after the PRC had introduced a ban on plastic scrap imports through its National Sword Policy, despite opposition from industry groups, based on the argument that the new administrative burden would pose a disincentive to investments in waste management and recycling technologies.⁹⁰ Thus, it is

85. This ban was introduced with the adoption of the Basel Ban Amendment, which prohibits all hazardous waste flows from the Organization for Economic Co-Operation and Development (OECD) and EU countries, as well as Liechtenstein, to all other Basel parties. See U.N. Env't Programme Basel Convention, Third Meeting of the Conference of the Parties to the Basel Convention, *Decision III/1: Amendment to the Basel Convention*, U.N. Doc. UNEP/CHW.3/35, III/1 (Nov. 28, 1995).

86. See Sabaa A. Khan, *Basel Convention Parties Take Global Lead on Mitigating Plastic Pollution*, AM. SOC'Y INT'L L. (Aug. 26, 2019), <https://www.asil.org/insights/volume/23/issue/7/basel-convention-parties-take-global-lead-mitigating-plastic-pollution> [<https://perma.cc/DDC5-XSUA>].

87. See Sabaa A. Khan, *Clearly Hazardous, Obscurely Regulated: Lessons from the Basel Convention on Waste Trade*, 114 AJIL UNBOUND 200, 201-202 (2020).

88. U.N. Env't Programme Basel Convention, 14th Meeting of the Conference of the Parties to the Basel Convention, *Decision: Amendments to Annexes II, VIII and IX to the Basel Convention*, UN Doc. UNEP-CHW-COP.14-BC-14-12 (2019).

89. Amended were Annex II Y48, now including plastic waste and mixtures; Annex VIII A3210 to hazardous plastic waste; and Annex IX B3011, now listing clean plastic waste for recycling. While the former two types of plastics require PIC, the latter can be traded freely if sorted, clean, uncontaminated and recyclable. See *id.* at 57-58.; see also Kristin Hughes & Kimberley Botwright, *Trade Barriers Are Slowing Plastic-Pollution Action. Here's How to Fix This*, WORLD ECONOMIC FORUM (July 27, 2020), <https://www.weforum.org/agenda/2020/07/trade-barriers-are-slowing-action-on-plastic-pollution-here-s-how-to-fix-that/> [<https://perma.cc/4WBV-6J2E>].

90. See, e.g., EUR. FED'N OF WASTE MGMT. & ENV'T SERV., FEAD POSITION ON THE NORWAY PROPOSAL TO AMEND ANNEXES II, VIII AND IX OF THE BASEL CONVENTION (Dec. 2018); see also WORLD PLASTICS COUNCIL, WPC NORWAY AMENDMENT POSITION STATEMENT (May 6, 2019); Khan, *supra* note 84, at 203. On OECD and Basel

now harder for members to trade plastics other than those destined for environmentally sound managed recycling or disposal.⁹¹ The concrete impact, however, is difficult to determine because countries are still in the process of implementing the new rules, and the annual reports of state parties to the Basel Convention on trade/shipment of plastic waste won't be filed until the end of 2022.⁹²

Further actions on plastic waste were the establishment of Technical Guidelines and the Plastic Waste Partnership for implementation.⁹³ The latter aims to improve and promote the environmentally sound management of plastic waste at different levels of governance, including state and non-state actors, through knowledge sharing, identification of ongoing and lacking efforts, mapping of stakeholder engagement, listing targets and commitments in reducing plastic pollution and minimizing its generation.⁹⁴

It has been outlined that while the trade regime historically builds on ideas of trade liberalization and the removal of trade barriers, the international environmental regime draws on a logic of prevention of specific harms to the environment and of its protection.⁹⁵ It can thus be argued that cooperation between both regimes would have to apply both rationales to jointly approach the issue of plastic pollution. This leads to the question of how interaction between both regimes is taking place, which will be assessed in the subsequent section.

harmonization, *see* ORG. FOR ECON. COOP. & DEV., DECISION OF THE COUNCIL ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF WASTES DESTINED FOR RECOVERY OPERATIONS (2020).

91. Developments include a decline of shipments to Hong Kong due to the adopted legislation restricting delivery and the announcement of the world's largest shipper, Maersk, that it would no longer transport waste to Hong Kong or the PRC. *See* Charles Pekow, *As the Rest of World Tackles Plastics Disposal, the U.S. Resists*, MONGABAY (May 17, 2021), <https://news.mongabay.com/2021/05/as-the-rest-of-world-tackles-plastics-disposal-the-u-s-resists/> [<https://perma.cc/JK83-9GGS>] (last visited Jan. 28, 2022).

92. *See* Elizabeth C. Alberts, *Despite Deals, Plans and Bans, the Mediterranean is Awash in Plastic*, MONGABAY, Nov. 11, 2021, <https://news.mongabay.com/2021/11/despite-deals-plans-and-bans-the-mediterranean-is-awash-in-plastic/> [<https://perma.cc/GGR4-WB4A>] (last visited Jan. 28, 2022).

93. U.N. Env't Programme Basel Convention, 14th Meeting of the Conference of the Parties to the Basel Convention, *Decision: Further Actions on Plastic Waste*, UN Doc. UNEP-CHW-COP.14-BC-14-13 (2019).

94. IEVA RUČEVSKA & PATRICIA VILLARRUBIA-GÓMEZ, *supra* note 56, at 6.

95. *See* GARY P. SAMPSON, THE WTO AND SUSTAINABLE DEVELOPMENT 277f (2005).

C. Interaction of Trade and Environmental Regimes

Article 10 of the Basel Convention explicitly refers to international cooperation between its state parties, and the report of the Fourteenth Conference of the Parties to the Basel Convention further requests the Basel Convention Secretariat to cooperate with relevant international organizations, including collaboration on the topics of marine plastic litter and microplastics.⁹⁶ Although the decision does not specifically mention cooperation with the WTO, interaction between the two regimes is to be considered relevant, since 156 out of 188 parties to the Basel Convention are also members of the WTO.⁹⁷ It can be argued that state parties are at least equally interested in environmental protection as they are in trade liberalization and that different options for cooperation should therefore be taken into account in order to address the issue of plastic pollution. Such an assessment should start by looking at the treaties of both regimes.

The legal text of the Basel Convention does not entail any particular provisions referring to the GATT or WTO Agreements and was adopted before the WTO was founded. As such, no specific WTO obligations have to be considered by state parties during the adoption or implementation of trade measures linked to hazardous waste.⁹⁸ Such trade measures are considered *lex specialis* and therefore outside the scope of WTO rules.⁹⁹ Although the Convention was adopted before the WTO was founded, it was established in a time period of liberalization of trade in goods defined by the GATT.¹⁰⁰ So far, no trade measure of the Basel Convention has been challenged at the WTO, however the overall ban on waste trade between developed and developing countries¹⁰¹ has received criticism from the

96. U.N. Env't Programme Basel Convention, Fourteenth Meeting of the Conference of the Parties to the Basel Convention, *Decision: International Cooperation and Coordination*, UN Doc. UNEP-CHW-COP.14-BC-14-21 (2019).

97. Committee on Trade and Environment, *Note by the Secretariat: Matrix on Trade-Related Measures Pursuant to Selected Multilateral Environmental Agreements*, WTO Doc. WT/CTE/W/160/Rev.9 TN/TE/S/5/Rev.7, at 144 (Mar. 19, 2021); Basel Convention, Mar. 22, 1989, 1673 U.N.T.S. 57.

98. See DUNCAN BRACK & KEVIN GRAY, *MULTILATERAL ENVIRONMENTAL AGREEMENTS AND THE WTO* 21 (2003).

99. See V. Yu, *Discussion Paper on the World Trade Organization and Multilateral Environmental Agreements*, FRIENDS OF THE EARTH 7 (2007).

100. See Ishtiaque Ahmed, *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal: A Legal Misfit in Global Ship Recycling Jurisprudence*, 29 WASH. INT'L L.J. 411, 416 (2020).

101. This applies to the concrete distinction between import and export countries instead of the states' capacity to ensure environmentally sound management and whether this can be justified. See generally J. CRAWFORD & P. SANDS, *THE AVAILABILITY OF ARTICLE 11*

waste shipment industry in the past.¹⁰² In the *Brazilian - Tyres case*¹⁰³ the WTO Panel did not demonstrate the applicability of WTO law with regard to the tyres as waste or recovered goods.¹⁰⁴ The tyres were, however, treated as commodities due to their classification as such under the HS.¹⁰⁵ Moreover, the parties to the case referred explicitly to the Technical Guidelines on the Identification and Management of Used Tyres of the Basel Convention¹⁰⁶ and the Convention itself to substantiate Brazil's claim on the severe risk of human health impacts of accumulated waste tyres.¹⁰⁷ The relationship between the trade regime and the Basel Convention was also emphasized in *S.D. Myers Inc. v. Canada*,¹⁰⁸ a case adjudicated at the Federal Court of Canada, which ruled that a state party to both the North American Free Trade Agreement (NAFTA) and the Basel Convention had to choose the means least inconsistent with NAFTA when implementing the Basel Convention.¹⁰⁹

Because the Basel Convention regulates the transboundary movement of hazardous and other wastes, it differentiates between hazardous and other wastes in its legal terminology. As per Art. 1(1)(a) of the Convention, waste is considered hazardous, if it is listed in Annex I and Annex III of the Convention, which includes criteria such as flammable, explosive, toxic and eco-toxic, or as per Art. 1(1)(b) of the Convention, if national law defines waste as hazardous. These terminologies do not provide a unified standard for a legal definition or clear distinction of waste and non-waste, hazardous and non-hazardous, and environmentally sound management among its state parties and their domestic courts,

AGREEMENTS IN THE CONTEXT OF THE BASEL CONVENTION'S RECYCLABLE BAN AMENDMENT (1997).

102. See BRACK & GRAY, *supra* note 98, at 19.

103. The case concerned Brazil's adoption of an import prohibition on retreaded tyres (import ban) and implementation of fines on the import, storage, keeping or warehousing of retreaded tyres. Complainant was the European Communities and Respondent the state of Brazil. Panel Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WTO Doc. WT/DS332/R, at ¶ 2.5 (adopted June 12, 2007) [hereinafter WTO Panel, Brazil – Tyres].

104. See GROSZ, *supra* note 77, at 256.

105. WTO Panel, Brazil – Tyres, ¶ 2.4.

106. BASEL CONVENTION, TECHNICAL GUIDELINES ON THE IDENTIFICATION AND MANAGEMENT OF USED TYRES, Basel Convention Series SBC No. 02/10 (first published in Oct. 2000, reprinted in Nov. 2002).

107. WTO Panel, Brazil – Tyres, ¶¶ 7.61, 7.63, 7.81, 7.187, 7.191. See also Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WTO Doc. WT/DS332/AB/R, at ¶ 21 (adopted Dec. 3, 2007) [hereinafter WTO Appellate Body – Brazil – Tyres].

108. *S.D. Myers, Inc. v. Canada*, 40 I.L.M. 1408 (2001).

109. *Id.* at 1460; See BRACK & GRAY, *supra* note 95, at 21, 35.

leaving their definition up to the actors themselves.¹¹⁰ This has led to discrepancies between different nations' understanding of hazardous waste and the meaning of the above mentioned characteristics of hazardous waste, with severe practical implications.¹¹¹ This problem also extends to the recent Plastic Waste Amendments.¹¹²

Another challenge is presented in the fact that transparency in marine shipping relies on the physical inspection capacities of ports, which makes waste trade monitoring and control obligations incapable of adapting to the new provisions.¹¹³ Clarification and improved characterization of hazardous wastes has been suggested through increased cooperation with the Harmonized System Committee and subcommittees of the World Customs Organization on the Harmonized Commodity Description and Coding System, which was adopted with the Decision BC-14/9.¹¹⁴ Similar decisions with regard to cooperation with the WTO have been missing. However, because the WTO's main objective is to facilitate trade, in the context of plastic pollution it could contribute to harmonization of

110. See Ahmed, *supra* note 97, at 427; Jim Puckett, *The Basel Ban: A Triumph Over Business-As-Usual*, BASEL ACTION NETWORK (Oct. 1, 1997) http://wiki.ban.org/The_Basel_Ban:_A_Triumph_Over_Business-As-Usual [<https://perma.cc/85PW-JRSL>]; John Thomas Smith II, *The Challenges of Environmentally Sound and Efficient Regulation of Waste—The Need for Enhanced International Understanding*, 5 J. ENV'T. L. 91, 93-98 (1993).

111. For example, an end-of-life ship in Denmark was considered hazardous waste, whereas in India it was not. See MICHAEL GALLEY, SHIP BREAKING: HAZARDS AND LIABILITIES, 137-40 (2014); see also Khan, *supra* note 83; Khan, *supra* note 84, at 201; see generally JENNIFER CLAPP, TOXIC EXPORTS: THE TRANSFER OF HAZARDOUS WASTES FROM RICH TO POOR COUNTRIES (2001).

112. This has implications for global shipping infrastructures which rely on short inspection time frames to reduce shipping delays and do not have adequate capacity to comply with the regulations as most customs authorities are under-resourced and vary geographically. See I. RUCEVSKA ET AL., WASTE CRIME – WASTE RISKS: GAPS IN MEETING THE GLOBAL WASTE CHALLENGE 8 (2015); see also Khan, *supra* note 84, at 203. This challenge has also been argued in the case of electronic waste; see generally Sabaa Ahmad Khan, *E-Product, E-Waste and the Basel Convention: Regulatory Challenges and Impossibilities of International Environmental Law*, 25 REVIEW OF EUROPEAN, COMPARATIVE AND INTERNATIONAL ENVIRONMENTAL LAW 248 (2016).

113. See Khan, *supra* note 84, at 204.

114. U.N. Env't Programme Basel Convention, 14th Meeting of the Conference of the Parties to the Basel Convention, *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, U.N. Doc. UNEP-CHW.14/28 ¶¶ 101, 104 (May 11, 2019).

classifications and standards and to the transfer of technology and environmentally sound management systems.¹¹⁵

The need for international cooperation has been recognized by the parties to the Basel Convention and recently expressed in the creation of the Plastic Waste Partnership, which complements the legal provisions.¹¹⁶ In the past, interaction between the Basel Convention and the WTO has consisted of informal institutional dialogue between the Basel Convention and the GATT, participation through obtained observer status of MEA secretariats at WTO Committee meetings, and enhanced cooperation between the secretariats.¹¹⁷ The WTO mandate also aims to clarify the relationship between WTO rules and trade measures in MEAs, to develop information exchange with MEA secretariats, and grant observer status, which includes the Basel Convention in addition to liberalizing trade in environmental goods and services.¹¹⁸ Its Committee on Trade and Environment (CTE) had invited MEA secretariats to participate in a total of eight information sessions from 1997 to 2007, where MEA Secretariats presented background notes on their respective MEAs and responded to questions from members on the trade-related aspects of their agreements.¹¹⁹ Moreover, during the sixth and seventh meetings of the Convention of the Parties (COP) to the Basel Convention, technical assistance workshops were held to increase the exchange of information.¹²⁰

Another form of cooperation was presented in technical cooperation through regional seminars, jointly held between the WTO, the Basel Convention, UNEP and UNCTAD.¹²¹ More recently, with the launch of

115. See LINDA FINSKA, CONFRONTING THE GLOBAL PLASTICS PROBLEM THREATENING THE MARINE ENVIRONMENT - A FRAMEWORK AND ELEMENTS OF AN INTERNATIONAL LEGAL RESPONSE 210 (2021); see also BRACK & GRAY, *supra* note 95, at 38.

116. See Khan, *supra* note 84, at 205.

117. Formal request to receive observer status at the WTO CTE meeting in special session was referred to in Art. 1(a) of COP6 Decision VI/30. See Sixth Meeting of the Conference of the Parties to the Basel Convention, *Decision: Cooperation with the World Trade Organization*, U.N. Doc. UNEP-CHW-COP.6-BC-VI-30 (Dec. 8-14, 2002). In turn, the WTO attended as an observer to the 14th session of the COP to the Basel Convention. See 14th Meeting of the Conference of the Parties to the Basel Convention, *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*, U.N. Doc. UNEP-CHW.14/28 ¶ 18 (May 11, 2019).

118. World Trade Organization, Ministerial Declaration of 14 November 2001, WTO Doc. WT/MIN(01)/DEC/1, 41 I.L.M. 746, ¶¶ 31-33 (2002) [hereinafter Doha Declaration].

119. Committee on Trade and Environment, *Existing Forms of Cooperation and Information Exchange Between UNEP/MEAs and the WTO*, WTO Doc. TN/TE/S/2/Rev.2 ¶ 5 (Jan. 16, 2007).

120. See *id.* at ¶ 6.

121. See *id.* at ¶ 11, tbl. 2.

the IDP, a forum for plastic pollution has been established at the WTO, providing opportunity for further cooperation with MEAs, in particular with the Basel Convention due to thematic coherence.¹²² These developments have not been perceived as secluded tasks or short-term activities, but rather as contributions to a constant and open-ended process of interaction. Such an interaction is needed to gain consent between members of both regimes in order to create coherent policies among state parties and standards for justified trade restrictions and trade liberalization of environmental goods and services. The latter would provide an opportunity to include waste-related environmental activities and technologies into WTO negotiations on reducing tariff and non-tariff barriers to environmental goods and services.¹²³

The submitted MEA notification procedures to WTO committees such as the Technical Barriers to Trade (TBT) Committee, provides another opportunity for future collaboration between the WTO and the Basel Convention on the monitoring and control of trade.¹²⁴ A joint mechanism would facilitate monitoring and reporting activities and does not have to be limited to the WTO and Basel Convention, but can also include relevant international organizations, such as UNCTAD, the World Customs Organization, UNEP, the Rotterdam and Stockholm Conventions secretariats, and further stakeholders.¹²⁵ A similar agreement was reached during the 14th session of the COP to the Basel Convention, which, together with the Rotterdam and Stockholm Conventions COPs, adopted decisions on international cooperation and a clearing-house mechanism for information exchange.¹²⁶ Similar interaction could therefore be pursued with regard to the WTO. Collaboration on data collection between the WTO Secretariat and the Basel Convention Secretariat is a good starting point, as the Basel Convention Secretariat is already engaging in assisting its member states to gather data.

122. The WTO IDP is particularly focused on improving transparency, lifting barriers for non-plastic substitutes and the transfer of waste management technology from richer to poorer countries.

123. An informal institutional dialogue between both secretariats had already been established under the GATT. See Sixth Meeting of the Conference of the Parties to the Basel Convention, *Decision: Cooperation with the World Trade Organization*, U.N. Doc. UNEP-CHW-COP.6-BC-VI-30 (Dec. 8-14, 2002).

124. See BRACK & GRAY, *supra* note 95, at 13.

125. World Trade Organization Informal Dialogue on Plastics Pollution Meeting, *Unofficial Room Document: Statement by Carolyn Deere Birkbeck, Director, Forum on Trade, Environment & the SDGs (TESS)*, *supra* note 62, at 2-4.

126. Committee on Trade and Environment, *Note by the Secretariat: Matrix on Trade-Related Measures Pursuant to Selected Multilateral Environmental Agreements*, WTO Doc. WT/CTE/W/160/Rev.9 TN/TE/S/5/Rev.7, at 153 (Mar. 19, 2021).

Drawing from these findings, it can be stated that the Basel Convention is limited in its scope and ability to achieve its objectives, such as minimizing the generation of plastic waste through its regulatory framework. It addresses only one phase of the plastics life cycle and hazardous wastes. Yet, the full life cycle, non-hazardous waste, and environmental responsibility in plastic product supply chains need to be considered when tackling the global plastic problem in a systematic manner.¹²⁷ This includes measures such as EPR, which address other phases of the life-cycle and are beyond the mandate of the Convention.¹²⁸ Cooperation at the international level also expands to international coordination of EPR systems and similar measures, such as negotiations on the elimination of tariffs, facilitation of trade in recycled plastics, and recyclable plastic wastes designed for certified environmentally-sound recycling facilities in line with the relevant provisions of the Basel Convention.¹²⁹

III. THE DIFFERENT FACETS OF TRADE: A SOLUTION OR IMPEDIMENT TO GOVERNING PLASTIC POLLUTION?

A review of the different response measures to the problem of plastic pollution has revealed a variety of regulatory, economic, and voluntary instruments as deployed by individual states and a fragmented legal landscape, inadequate to address the problem in a comprehensive and systematic manner that has yet to be overcome. This task is currently presented in the form of negotiations on a global plastics treaty at the international level. The role of trade presents different challenges and opportunities in that regard, which will be assessed in this part.

A. Challenges and Opportunities

Trade and economic incentives and disincentives play an important role in addressing the problem of plastic pollution by influencing actors' behavior and market conditions. They can help increase market access for innovative companies and sustainable products, harmonize standards, and support trade facilitation measures, but they encounter different

127. See Khan, *supra* note 84, at 205; see also Borrelle et al., *Why We Need an International Agreement on Marine Plastic Pollution*, 114 PROC. OF THE NAT'L ACAD. OF SCI. 9994, 9996 (2017).

128. See Khan, *supra* note 84, at 205.

129. World Trade Organization Informal Dialogue on Plastics Pollution Meeting, *Unofficial Room Document: Statement by Carolyn Deere Birkbeck, Director, Forum on Trade, Environment & the SDGs (TESS)*, *supra* note 62, at 3.

challenges. Challenges at the international and national level include impacts of plastic-related policies on trade flows, as they influence key exports and contribute to curbing those flows, as has been demonstrated in the case of the Basel Amendments. Challenges also occur in the form of varying standards of recycled plastic production, use, and labeling schemes, which add costs for recyclers that have to adjust their techniques and recycled plastic grades to the type of plastic grade used during the production process.¹³⁰

The deployment of different trade policies, economic instruments and regulatory measures is confronted with a fragmented and inconsistent landscape of legislations, policies, sectors, and products.¹³¹ Development also faces challenges due to the lack of international coordination through a comprehensive regulatory framework. Where regulation exists, implementation has proven to be rather difficult. With regard to the implementation of the Basel Convention, its established prior informed consent (PIC) procedure makes it difficult for some countries to efficiently review and process PIC notifications due to lack of capacity.¹³² Moreover, some countries, such as the U.S., a major exporter of hazardous waste including plastics,¹³³ have not joined the convention and thus have not implemented its rules, weakening the conventions' effectiveness.¹³⁴ This effectiveness is also jeopardized by the occurring illegal trade of plastics, not only by non-members of the convention, but also by illegal traffic of organized criminal groups.¹³⁵

130. See Hughes & Botwright, *supra* note 47.

131. See Dauvergne, *supra* note 11, at 22.

132. This includes administrative and bureaucratic challenges, as in many cases, documents are still in paper format causing long delays in shipments. See *Electronic Approaches for Notification and Movement*, BASEL CONVENTION, <http://www.basel.int/Implementation/Controllingtransboundarymovements/eapproachesfornotificationandmovement/Overview/tabid/7375/Default.aspx> [https://perma.cc/8V6W-6AK9] (last visited April 9, 2022).

133. With 37.83 million tons per year, the U.S is the second largest generator of plastic waste after the PRC. See *Plastic Waste Generation*, OUR WORLD IN DATA (OWID), <https://ourworldindata.org/grapher/plastic-waste-generation-total?tab=table> [https://perma.cc/MQF5-GUVM] (last visited April 9, 2022).

134. The U.S. is the only major country that is not a party to the Basel Convention, despite strong support from both the Republican and Democratic parties. See Charles Pekow, *As the Rest of World Tackles Plastics Disposal, the U.S. Resists*, MONGABAY (May 17, 2021), <https://news.mongabay.com/2021/05/as-the-rest-of-world-tackles-plastics-disposal-the-u-s-resists/> [https://perma.cc/J7ZK-V5K9].

135. According to the Basel Action Network, the U.S. for example has continued shipping plastic waste overseas to non-OECD countries, after the Basel Amendments came into effect, violating international law and exposing shippers and importing countries to possible sanctions. *Id.*

The lack of data on the geography of plastics trade and plastic pollution also represents a challenge for the Basel Convention, since its impact on regulating plastics cannot be determined. Moreover, the convention itself, even if successfully implemented, impacts only one segment of the plastics life cycle and does not address the production and domestic disposal processes. It also does not link the responsibility for plastic waste within plastic product supply chains.¹³⁶ This opens the case for EPR, as has already been suggested in the above section. However, difficulties of implementation also occur in the context of EPR, in particular for archipelagic countries.¹³⁷ The role of trade not only faces different challenges, but can become an obstacle itself when occurring as a barrier to trade-related policies that aim to reduce plastic pollution, as in the case of the 2013 ban by Italy on the sale of non-biodegradable plastic bags which has not been implemented due to disputes regarding EU trade laws.¹³⁸ Moreover, trade policies can still be improved through traceability and transparency of plastic waste in supply chains, in addition to investments in better waste management.¹³⁹

With regard to an international plastic treaty, a comprehensive legal definition and classification of plastic waste, that all member states agree on, is necessary in order to apply a holistic and integrated approach to plastic pollution.¹⁴⁰ However, mutual consent on this is still lacking and difficult to achieve when member states have conflicting interests and different capacities and resources, especially if a wide number of countries are participating. Although this would increase the legitimacy of the agreement, increasing participation and monitoring compliance are posing challenges in that regard.¹⁴¹

Although cooperation in international trade is increasingly shaped by bilateral and regional trade agreements, the multilateral trading system can direct and coordinate ongoing trade negotiations to include and recognize national efforts to combat plastic pollution in, for example, Free Trade

136. See Khan, *supra* note 84, at 200.

137. See Moore et al., *supra* note 2, at 170.

138. See Hughes & Botwright, *supra* note 47.

139. *Global Plastic Action Partnership Examines Role of Trade in Tackling Plastic Waste*, INT'L. INST. FOR SUSTAINABLE DEV., <https://sdg.iisd.org/commentary/policy-briefs/global-plastic-action-partnership-examines-role-of-trade-in-tackling-plastic-waste/> [https://perma.cc/WC94-K2MK] (last visited April 9, 2022).

140. See FINSKA, *supra* note 112, at 210-11; see also Yamaguchi, *International Trade and the Transition to a More Resource Efficient and Circular Economy: A Concept Paper*, 3 OECD TRADE & ENV'T WORKING PAPER, 13, 16 (2018).

141. GRID-ARENDAL, *supra* note 12, at 10.

Agreements. These could reflect objectives with regard to reducing plastic pollution.¹⁴²

As to the assistance of the Basel Convention Secretariat to state parties in collecting data on the generation and environmentally sound management of plastic waste, efforts have been achieved by developing inventories. However, non-parties are not incentivized or obligated to provide necessary data, which poses a relevant challenge to achieve progress. The challenge of obtaining and collecting data on plastic trade and pollution can thus be facilitated through a multi-stakeholder approach that allows citizen science to contribute to closing knowledge gaps by cooperating with intergovernmental organizations that are monitoring plastic pollution.¹⁴³

The role of this approach becomes evident in respect to non-state actors mobilizing forces for increased attention, information, and scientific evidence on transboundary issues. In the case of the Basel Convention, media coverage of the 1980s and the focus of environmental groups on the dumping of wastes from industrialized markets and emerging markets created momentum for negotiations at the international level, resulting in binding obligations and measures of the Basel Convention, and lastly, in the plastic amendments.¹⁴⁴ Drawing from these results, the Basel Convention Secretariat could thus reach out to other stakeholders in collecting data. Trade can help overcome the information gap by including the private sector in gathering relevant information, such as on consumers' concerns.¹⁴⁵ These opportunities and challenges underline the importance of recognizing economic and market-based instruments in addition to the existing regulatory framework and in complementation to an international agreement, such as a global plastics treaty.

142. Similarly, the EU has proposed to include the circular economy approach to Free Trade Agreements. See European Commission, *Communication From the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Circular Economy Action Plan For a Cleaner and More Competitive Europe*, *supra* note 49, at 18.

143. See Elizabeth Claire Alberts, *Despite Deals, Plans and Bans, the Mediterranean is Awash in Plastic*, MONGABAY (Nov. 11, 2021), <https://news.mongabay.com/2021/11/despite-deals-plans-and-bans-the-mediterranean-is-awash-in-plastic/> [<https://perma.cc/2SJR-SJMX>] (in the case of the citizen science NGO OceanEye).

144. See generally K. KUMMER, INTERNATIONAL MANAGEMENT OF HAZARDOUS WASTERS: BASEL CONVENTION AND RELATED LEGAL RULES (1995).

145. As suggested by Deputy Permanent Representative Patricia Ann Homes in the case of Australia. See *WTO Informal Dialogue Discusses Concept Note, Roadmap on Plastics and Trade*, INT'L. INST. FOR SUSTAINABLE DEV. (Apr. 12, 2021), <https://sdg.iisd.org/news/wto-informal-dialogue-discusses-concept-note-roadmap-on-plastics-and-trade/> [<https://perma.cc/2Q98-LVQP>].

B. Options for the World Trade Organization

The more recent engagement of the WTO in environmental and climate-related questions is expressed through a set of initiatives, such as dialogues, workshops,¹⁴⁶ and events in order to discuss the role of trade in reducing plastic pollution. Since the WTO acts as a forum for negotiations and as a dispute settlement body, it can contribute to governing plastic pollution in different ways. Options range and include the removal of subsidies, setting up environmental standards and labeling requirements, establishing government procurement policies that reduce the use of single-use plastics, setting incentives for EPR schemes, voluntary peer-learning and sharing of best practices, and promoting industrial policies that include subsidies and tax incentives to spur recycling, plastic substitutes, more biodegradable plastics, and waste management technologies.¹⁴⁷ With regard to the oceans and marine plastic pollution, the role of the WTO has changed from an environmental exemption under Art. XX GATT that justified trade-distorting measures, to a more active role in preserving the oceans.¹⁴⁸ The vast amount of opportunities has also been reflected in different suggestions by WTO members themselves promoting increased involvement of the WTO. These suggestions range from studying the production and use of plastics across their life cycle,¹⁴⁹ to monitoring and evaluating developments in global plastic production, trade flow, and supply chains through the establishment of a central platform.¹⁵⁰

Effective contribution of the WTO thus recognizes the transboundary dimension of the issue by setting international standards; the domestic dimension through harmonization and coordination of the different

146. A workshop on that topic, co-organized by the PRC, Sri Lanka and Morocco was conducted on Nov. 25, 2019. See *What Role for the WTO in Addressing Plastics Pollution?*, WTO (Nov. 25, 2019), https://www.wto.org/english/tratop_e/envir_e/cte_week_251119_e/china_251119.pdf [https://perma.cc/3LCA-EP89].

147. As suggested by Barrowclough and Deere Birkbeck. See Diana Barrowclough & Carolyn Deere Birkbeck, *supra* note 9, at 46.

148. *WTO Deputy Director-General shows the long and important relationship between ocean conservation and world trade*, INT'L UNION FOR CONSERVATION OF NATURE (Sep. 14, 2021), <https://www.iucn.org/news/marine-and-polar/202109/wto-deputy-director-general-shows-long-and-important-relationship-between-ocean-conservation-and-world-trade> [https://perma.cc/NCA3-8BKD].

149. As suggested by Chenggang Li, Ambassador of the PRC. See *WTO Informal Dialogue Discusses Concept Note, Roadmap on Plastics and Trade*, INT'L INST. FOR SUSTAINABLE DEV. (April 12, 2021) <https://sdg.iisd.org/news/wto-informal-dialogue-discusses-concept-note-roadmap-on-plastics-and-trade/> [https://perma.cc/Q2XN-693X].

150. As suggested by Chad Blackman, Ambassador of Barbados. See *id.*

national policies; and the transparency dimension of the problem in relation to a variety of actors, including important non-state actors such as businesses that are facing a complex and nontransparent regulatory framework of sustainability standards and trade-related measures impeding exports and innovations. Although the launch of the IDP can be regarded as an important contribution in that context, an advanced dialogue at the highest WTO-level should include an initiative introduced by the Ministerial Conference on the topic of plastic pollution.

A discussion on the role of trade in governing plastic pollution at the WTO level also touches upon the negotiations on phasing out fossil fuel subsidies, as they strongly relate to upstream activities.¹⁵¹ A reform of fossil fuel subsidies would affect the current low plastic price and incentivize producers and manufacturers to use substitutes, as the demand for alternatives would increase. The recent outcome of the 26th Session of the Conference of the Parties to the UN Framework Convention on Climate Change has revealed a first step in that regard, as state parties agreed to phase out inefficient fossil fuel subsidies.¹⁵²

Discussing the options for the WTO also points to possible reforms of the institution itself in order to strengthen its role, which includes a stronger role of the General Secretariat.¹⁵³ The WTO Secretariat could contribute to overcoming the data gap by assisting with data collection and thus increase transparency to overcome the attributed information gap in policy and regulation. Similar to the Basel Convention Secretariat, the WTO Secretariat could boost cooperation between WTO member states, WTO Committees, and other intergovernmental and non-governmental organizations. As was already outlined in this article, the author perceives multi-stakeholder collaboration as a more suited approach to close the information and data gap, which also represents a more feasible alternative, as some non-state actors or the private sector already cooperate with international organizations on the subject of data collection.

C. Options for Cooperation Between Legal Regimes

Trade, so far, has not been considered a solution to the issue of plastic pollution, but rather as a multiplier or contributing factor of the problem.

151. See KARTIKEYA GARG, ENVIRONMENTAL ISSUES IN THE MULTILATERAL TRADING SYSTEM: PAST, PRESENT, AND POSSIBLE FUTURE 19 (2021).

152. U.N. Framework Convention on Climate Change, *Glasgow Climate Pact*, ¶ 36, U.N. Doc. FCCC/PA/CMA/2021/L.16 (Nov. 13, 2021).

153. *Rules for International Trade*, BERTELSMANN FOUNDATION (Jul. 7, 2018), <https://www.bertelsmann-stiftung.de/en/our-projects/global-economic-dynamics/project-topics/trade-governance> [<https://perma.cc/82A3-TWGY>].

This is expressed in the different measures restricting trade, such as bans or environmental regulations that have been taken at the domestic level, but also in trade measures of MEAs. Moreover, many initiatives on the issue have taken place in the secluded settings of different regulatory regimes or through individual events, such as the joint publication between UNEP and the WTO¹⁵⁴ on issues related to the climate-trade-nexus, or the announcement of UNEP to collaborate with the WTO IDP to jointly address the issue of plastic pollution. This collaboration aims to synergize the work of UNEP, the Basel Convention, and the WTO IDP.

This article suggests different steps to increase understanding on the role and need of further international cooperation between existing regimes. The ability to take concrete action on combating plastic pollution requires states to have better knowledge and measurement of their “plastic footprint.” An important first step for international cooperation consists thus in setting measurable science-based targets and standards, such as a plastic waste reduction standard.¹⁵⁵ Further research and data collection are essential in that regard and can be facilitated through institutional cooperation between WTO committees and MEA secretariats, as outlined above.¹⁵⁶

This is an important second step in order to coordinate national policies. International institutional cooperation must go above and beyond simple MEAs, information exchange, and grants of observer status.¹⁵⁷ Cooperation should bring together high-level representatives and epistemic communities with different backgrounds, emphasizing different aspects of the debate in order to contribute to the minimization of waste generation, as targeted by the Basel Convention. Cooperation should also

154. See generally L. TAMIOTTI ET AL., TRADE AND CLIMATE CHANGE: A REPORT BY THE UNITED NATIONS ENVIRONMENT PROGRAMME AND THE WORLD TRADE ORGANIZATION (2009).

155. The development and inclusion of measurable reduction targets has also been suggested in the context of establishing an international plastic treaty. See Borrelle et al., *supra* note 124, at 9996.

156. This objective was already recognized in the Plan of Implementation of the 2002 World Summit on Sustainable Development. Areas of cooperation between MEAs, such as the Basel Convention and the WTO derive from specific trade obligations in MEAs. See Doha Declaration, *supra* note 115, ¶¶ 31-33.

157. Para.1(a) of the Sixth Meeting of the Conference of the Parties to the Basel Convention, *supra* note 120, requested the Basel Convention Secretariat to seek observer status in the WTO CTE special session, with the latest correspondence between WTO Secretariat and Basel Convention Secretariat on observer status being November 2011. See *Cooperation with the WTO*, BASEL CONVENTION, <http://www.basel.int/Implementation/LegalMatters/TradeandEnvironment/CooperationwiththeWTO/tabid/3512/Default.aspx> [<https://perma.cc/53GT-ZUCR>] (last visited April 9, 2022).

include aspects of prevention that relate to upstream activities and a circular economy approach, in addition to aspects of trade liberalization as expressed in negotiations on environmental goods and services.

International cooperation open to a wider set of stakeholders also provides the opportunity to recognize the important role of the informal waste sector and to provide it with socio-economic empowerment in order to contribute, consistent with internationally established rules and regulations to addressing plastic pollution. This can be achieved through underlying principles of accountability and transparency, including the involvement of each actor in the implementation process in order to enable the tracking of waste and transfer of required technology. This form of cooperation is thus concerned with the implementation of international rules on action regarding marine plastic pollution and integrates the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15,¹⁵⁸ which serve as important guiding principles originating from the international environmental regime.

This step of international cooperation is connected to the monitoring and evaluation of efforts through third party governance and independent institutions and non-governmental organizations that, in the particular case of plastic waste trade, can independently inspect to accelerate enforcement procedures of national authorities.¹⁵⁹ Such an interdisciplinary form of international cooperation can give momentum to environmental action, policy advocacy, engagement at the grassroots level, and negotiations on finance options. Combined, all of these steps of international cooperation can contribute to a holistic toolkit that not only covers different options states can select from when targeting the amount and effects of plastic pollution, but that also considers the full life cycle of plastics.

In reality, current action at the international level is still taking place through siloed processes and in a fragmented legal system, as expressed in the COP to the Basel Convention, the secluded Ministerial Conference for WTO members, and the UNEA as the preferred international organization with the mandate to establish an international plastics treaty. A starting point for international cooperation between different legal regimes can thus be an interdisciplinary event or meeting, similar to the 2020 Trade and Environment Week or a forum taking place at the

158. See *The 17 Goals*, UNITED NATIONS, <https://sdgs.un.org/goals> [<https://perma.cc/74CN-HMKG>] (last visited April 9, 2022).

159. This is important as a lack of independence of non-governmental organizations can lead to focus only on certain issues or impede efforts in tackling plastic pollution. See Rosaleen Duffy, GLOBAL ENVIRONMENTAL GOVERNANCE AND NORTH-SOUTH DYNAMICS: THE CASE OF THE CITES, 31 ENV'T AND PLAN. C: GOV'T AND POL'Y 222, 226-28 (2013).

ministerial level, bringing together representatives from different fields of climate, trade and finance. The latter option has already been established through the Coalition of Finance Ministers for Climate Action.¹⁶⁰

CONCLUSION: THE WAY FORWARD

As was outlined in this article, marine plastic pollution has been mainly addressed through several individual regulatory measures, such as manufacturing and import bans; restrictions on imports and exports of certain plastic wastes and single use plastics; and the use of licensing and labeling schemes, taxes, and charges as disincentives aiming to influence behavior. Although these measures might have contributed to regulation of plastic pollution in the short-term, these measures have resulted in an asymmetric landscape of regulatory, economic, and voluntary instruments inadequate in addressing the transboundary issue of plastic pollution in the long run and throughout the different phases of the plastics life cycle.

In order to target the issue of marine plastic pollution, states must set economic incentives for the production, consumption, and disposal of plastics. Trade therefore not only has to be recognized by the international community as an important contributor in the context of governing plastic pollution, but must provide concrete outcomes, such as internationally agreed guidelines, standards, and incentives in order to provide the necessary transition of markets and increase cooperation between different legal regimes. It can also be concluded that trade measures, such as those included in the Basel Convention and those that may potentially be part of an international plastics treaty that restrict trade, are not enough to tackle the problem of plastic pollution. Economic instruments, therefore, must be regarded as an effective complementary pathway in addition to regulation through an international plastic treaty.

160. See C. Deere Birkbeck, Trade ministers must pull their weight on climate action, CHATHAM HOUSE (Oct. 8, 2021), <https://www.chathamhouse.org/2021/10/trade-ministers-must-pull-their-weight-climate-action> [<https://perma.cc/36KC-SADP>].