

Restrictive Measures When Trading Water: May GATT Protect Us from Water Scarcity

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I. INTRODUCTION

Fresh water is indispensable for human existence and life on the planet.¹ Its importance for human beings and the environment is undeniable. Sustainable and reasonable utilization² of freshwater resources is an imperative since they are natural resources suffering from overexploitation by human activities³ and the devastating effects of climate change.⁴ The Dublin Statement on Water and Sustainable Development highlights their vulnerability, underlying the vitality of their conservation.⁵ Sustainable Development Goal no. 6 repeats the vulnerability of freshwater resources and calls states to address water scarcity and ensure access to water for all.⁶ Furthermore, the Dublin Statement stresses the economic value of fresh water in all of its competing uses and urges states to recognize it as an economic good.⁷ Such recognition must take into account the fact that fresh water must be accessible for everyone as well as equity criteria. In line with this, Agenda 21 of the Rio Declaration on Environment and Development approaches

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¹ Ross E McKinney, 'The Need and Importance of Fresh Water for Mankind' (1963) 66(1) *Trans Kans Acad Sci* 14 at 14–16.

² The sustainable and reasonable utilization of freshwater resources is achieved efficiently by applying integrated water resources management. See Mark Lubell and Carolina Balazs, 'Integrated Water Resources Management: Core Research Questions for Governance' in Ken Conca and Erika Weinthal, eds, *The Oxford Handbook of Water Politics and Policy* (2018) 569 at 569–93.

³ Alberto Montanari, *Assessment of Human Impact on Water Resources* (2 May 2020) <<https://www.albertomontanari.it/?q=node/116>>.

⁴ Vasiliki Maria Tzatzaki and Dan A Tarlock, 'International Water Law and Climate Disruption Adaptation' in Attila Tanzi et al, eds, *The UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes* (2015) 379 at 379–93.

⁵ *Dublin Statement and the Report of the Conference, International Conference on Water and the Environment: Development Issues for the 21st Century* (26–31 January 1992), Principle no 1 <<https://www.ircwash.org/sites/default/files/71-icwe92-9739.pdf>>.

⁶ *Transforming Our World: The 2030 Agenda for Sustainable Development*, UNGA Doc A/Res/70/1 (25 September 2015), Sustainable Development Goal no 6.

⁷ *Dublin Statement*, *supra* note 5, Principle no 4.

water both as a natural resource and as a social and economic good, and it states that the users should be charged appropriately.⁸

For the purposes of this article, it is important to distinguish the terms ‘fresh water’ and ‘freshwater resources’—the first term refers to the product of extraction from the resources, while the second refers to the resources *in toto*, the river basins,⁹ which constitute management units and include quantitative and qualitative factors, both biotic and abiotic. This distinction is necessary in international water trade since fresh water, extracted from natural resources, is on the international market. Reality shows that water trade is popular among states, taking various technical forms and, thus, complicating its regulation.¹⁰ In everyday life, fresh water is susceptible to costing and pricing on both the national and international levels.¹¹ In this context, it is crucial to set international water trade in a legal framework within a regime of international law in order to provide predictability for states and delineate their actions.

Since there is not a special regime or even explicit provisions for international water trade (in the sense of *lex specialis*¹²), the rules of the World Trade Organization (WTO) appear to be the most appropriate to apply. The WTO has been characterized as one of the most autonomous regimes of public international law,¹³ and its principles, agreements, and judicial bodies together create an independent nexus with the primary goal of reducing market barriers, promoting free trade among states, and enhancing cooperation.¹⁴ Until now, no disputes between its member states regarding fresh water trade have occurred.

⁸ Agenda 21, 13 June 1992, UN Doc A/CONF. 151/26 (1992), ch 18 at para 8.

⁹ ‘River basin means the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.’ Council Directive (EC) 2000/60 Establishing a Framework for Community Action in the Field of Water Policy [2000] OJ L327/1, art 2 at para 13 (Water Framework Directive). It should be noted that only 2.5 percent of world’s water is fresh. The rest is saline and ocean based. Just 1 percent of our freshwater is easily accessible, with much of it trapped in glaciers and snowfields. In essence, only 0.007 percent of the planet’s water is available to fuel and feed the whole of humanity. For more information, see <https://www.nationalgeographic.com/environment/freshwater/freshwater-crisis/>.

¹⁰ For international examples, see Josefina Maestu, ed, *Water Trading and Global Water Scarcity: International Experiences* (2013).

¹¹ Yacov Tsur, ‘On the Economics of Water Allocation and Pricing’ (2009) 1(1) *Ann Rev Resource Economics* 513.

¹² *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law: Report of the Study Group of the International Law Commission*, Doc A/Cn.4/L.682 (13 April 2006) at paras 56–122.

¹³ Andrew T Guzman, ‘Global Governance and the WTO’ (2004) 45(2) *Harv Intl LJ* 303 at 303; Pieter Jan Kuijper, ‘The Law of GATT As a Special Field of International Law: Ignorance, Further Refinement or Self-Contained System of International Law?’ (1994) 25 *NYIL* 227 at 227–57; Anja Lindroos and Michael Mehling, ‘Dispelling the Chimera of “Self-Contained” Regimes: International Law and the WTO’ (2005) 16(5) *EJIL* 857 at 857–77; Bruno Simma and Dirk Pulkowski, ‘Of Planets and the Universe: Self-Contained Regimes in International Law’ (2006) 17(3) *EJIL* 483 at 483–529.

¹⁴ Padideh Ala’i, ‘The Vital Role of the WTO Appellate Body in the Promotion of Rule of Law and International Cooperation: A Case Study’ (2019) 44 *Y J Intl L Online* 86 at 86–95. However, the coherence of the World Trade Organization (WTO) system is underscored by the current crisis (27

The following analysis will attempt to shed light on the tripartite relationship between water trade, environmental protection of freshwater resources, and the WTO by answering certain questions: does water qualify as a good under the General Agreement on Tariffs and Trade (GATT); can trade restrictive measures be justified under the GATT's exceptions on the basis of environmental protection of freshwater resources; can arguments in favour of such environmental measures stand before the dispute settlement mechanisms of the WTO; and, in more simple terms, can the GATT's trade restrictive measures save us from water scarcity?¹⁵ Before answering these questions, we must comprehend that water is a multidimensional good, expanding to all aspects of life, and, therefore, its regulation concerns all regimes of international law. However, the existing normative jungle of public international law¹⁶ may trigger confusion, which can be avoided by including fresh water trade in the coherent framework of the WTO.

For methodological reasons, this article will be divided into two parts: the first part will examine certain GATT provisions and their applicability to fresh water trade, including the relevant exceptions that justify state restrictive measures in order to protect and preserve freshwater resources, while the second part will delve into the case law of the WTO, attempting to find representative examples that could provide useful guidance in future disputes on measures restricting or even prohibiting water trade between member states in cases like water scarcity that demand the conservation of freshwater resources.

II. GATT AND WATER TRADE: APPLICABLE PROVISIONS AND EXCEPTIONS

The aim of the WTO is to provide the institutional framework for the conduct of international trade relations among its members,¹⁷ recognizing the need to raise standards of living and allowing for the optimal use of the world's resources in accordance with the principle of sustainable development.¹⁸ According to the GATT, states are allowed to develop the full use of the resources of the world and expand the production and exchange of goods.¹⁹ Before dealing with the GATT's applicability on fresh water trade, it is important to explore in more detail the particularities of trading fresh water, either bottled or bulk.²⁰ Bottled

March 2020) regarding its two-step dispute settlement mechanism, which is reflected in the contingency appeal arrangement established by the European Union (EU) and fifteen WTO member states, allowing them to bring appeals and solve trade disputes among them. For more information on the arrangement, see <<https://trade.ec.europa.eu/doclib/press/index.cfm?id=2127>>.

¹⁵ General Agreement on Tariffs and Trade, 1994, 55 UNTS 194 (GATT).

¹⁶ Anja Lindroos, 'Addressing Norm Conflicts in a Fragmented Legal System: The Doctrine of *Lex Specialis*' (2005) 74(1) *Nordic J Intl L* 27 at 31.

¹⁷ Marrakesh Agreement Establishing the World Trade Organization, 1994, 1867 UNTS 154, art II at para 1 (WTO Agreement).

¹⁸ *Ibid*, preamble at para 1.

¹⁹ GATT, *supra* note 15; WTO Agreement, *supra* note 17, Annex 1a.

²⁰ Due to its complicated technical status in international trade, virtual water or water embedded in products will not be examined in this article.

water is the most common way for the commercialization of what is extracted from natural resources,²¹ and a part of the consumer community prefers it over tap water.²² At the same time, campaigns on the drawbacks of drinking bottled water are increasing, while the war against it focuses on the negative effects of its production on the environment.²³ Indeed, bottle production demands great quantities of energy,²⁴ while it diffuses pollutants into both the air and water. Energy and fuels are also consumed for the transportation of bottled water both in national as well as international markets.²⁵ Water abstraction for bottled water imposes extra burden on the ecosystems since it exacerbates the existing problem of water depletion, especially in countries that face water shortages.²⁶

Bottled water is accepted by states as a tradable commodity subject to the rules of international trade.²⁷ Notifications on technical and sanitary regulations and standards concerning bottled water under the Agreement on Technical Barriers to Trade are indicative.²⁸ In the GATT, bottled water is not referred to explicitly as a 'product.' According to Annex I, any product of farm, forest or fishery, or mineral in its natural form or that has undergone such processing as is customarily required to prepare it for marketing in substantial volume in international trade is a 'primary product.'²⁹ Given that bottled water undergoes certain processing and that it is distributed in international markets in large quantities, it can be argued that it falls within the definition of a 'primary product' and therefore lies within the GATT's regulatory framework.

Regarding bulk water, during the last several years, its exports have been increasing, being popular especially in areas of the planet relying on seawater desalination.³⁰

²¹ Scott S Slater, 'State Water Resource Administration in the Free Trade Agreement Era: As Strong As Ever' (2007) 53 Wayne L Rev 649 at 651–2.

²² Miguel F Doria, 'Bottled Water versus Tap Water: Understanding Consumers' Preferences' (2006) 4(2) J Water Health 271 at 275.

²³ Robert Glennon, 'Tales of French Fries and Bottled Water: The Environmental Consequences of Groundwater Pumping' (2007) 37(3) *Envtl L* 3 at 3–13.

²⁴ Peter H Gleick and Heather Cooley, 'Energy Implications of Bottled Water' (2009) 4(1) *Envtl Research Letters* 1 at 1–6.

²⁵ Krisy Gashler, 'Thirst for Bottled Water Unleashes Flood of Environmental Concerns,' *Ithaca Journal* (8 June 2008) <http://www.holistichealthsolutions.com/KangenWater/files/USA_Today_Bottled_Water_Article.pdf>.

²⁶ Vasiliki Maria Tzatzaki, *Water in Public International Law* (2012) at 22 (in Greek).

²⁷ Alix Gowlland Gualtieri, 'Legal Implications of Trade in "Real" and "Virtual" Water Resources' in Philippe Culet et al, eds, *Water Law for the Twenty-First Century: National Aspects of Water Law Reform in India* (2009) 59 at 63.

²⁸ Committee on Technical Barriers to Trade, *Spring Water and Bottled Drinking Water*, Notification by the United Kingdom, Doc G/Tbt/N/Gbr/14 (7 June 2006); Agreement on Technical Barriers to Trade, 1994, 1868 UNTS 120.

²⁹ GATT, *supra* note 15, Annex I, art XVI, section B at para 2.

³⁰ One example of bulk water trade as a response to seawater desalination is the contract signed between Arctic Blue Waters, Pure Kuwait Water Trade Company, and Pure Bahrain Bottling and Water Company on 11 August 2016. The intention was to export water by food grade tanker ships from Canada to the gulf countries. See <<http://www.arcticbluewater.com/news-article/57add9c4b4730/bulk-water-contract-signed>>.

There is a lot of debate whether bulk water is a product (like bottled water) and subject to the GATT's provisions.³¹ Examining the criteria for the definition of a primary product, we find that bulk water is removed from natural resources in large quantities, it is not packaged, it remains in its natural form, and, from the moment of its extraction, it becomes completely different from the water that flows in the river basin. It is the result of human interference with the natural resource, which is processed and distributed in large quantities, most commonly by pipelines or super tankers.³² Since it fulfils the criteria of 'primary products,' why exclude it and not consider it a tradable good under the GATT?³³

A positive answer to this question is corroborated by the fact that water (both bottled and bulk) is included in the Harmonized Commodity Description and Coding System, developed under the auspices of the World Customs Organization,³⁴ which serves as the basis for identifying products for setting tariffs under the GATT³⁵ and also for interpreting the GATT.³⁶ Moreover, given the fact that the GATT's provisions do not exempt it, *a contrario*, it could be argued that water falls within its regulatory framework as a product of international trade.³⁷ Consequently, while bottled water is the least disputable means of water trade, there is yet to be a generally accepted conclusion whether bulk water should be considered as a good when imported and exported between states.³⁸ By accepting that both bottled and bulk water are tradable goods in the global market, the GATT's provisions are applicable.

³¹ See Fitzgerald Temmerman, *Trade in Water under International Law: Bulk Freshwater, Irrigation Subsidies and Virtual Water* (2017) at 43–50; Anne Nadakavukaren, *Our Global Environment: A Health Perspective* (7th edn, 2011) at 414.

³² Mirielle Cossy, 'Le statut de l'eau en droit international économique: principaux aspects au regard des règles de l'organisation mondiale du commerce' in Boisson De Chazournes and SM Salman, eds, *Water Resources and International Law* (2005) 169 at 175–8. There is also a distinction in bulk water trade between fresh water that is merely dammed or flooded and bulk fresh water that is redirected by pipeline to a certain destination from where it can be further processed. Temmerman, *supra* note 31 at 30. The technical aspects of dammed or diverted water are rather complicated and require extended analysis, which falls outside the scope of this article.

³³ According to Uruëña, international economic law has become the default language of global water governance. René Uruëña, 'International Trade Law and Fragmentation in Water Regulation' (2009) 6(1) *US-China L Rev* 50 at 50–66.

³⁴ Harmonized Commodity Description and Coding System, *World Customs Organization Heading 22.1* (6th edn, 2017) <https://www.ana.gob.pa/w_ana/images/ana_pdf/arancel/arancel_2016/sh_en_2017.pdf>.

³⁵ *European Communities – Customs Classification of Frozen Boneless Chicken Cuts*, Appellate Body Report, WT/DS269/AB/R, WT/DS286/AB/R (12 September 2005).

³⁶ *European Communities – Customs Classification of Certain Computer Equipment*, Appellate Body Report, WT/DS62/AB/R, WT/DS67/AB/R, WT/DS68/AB/R (5 June 1998). See also Thomas Cottier, Matthias Oesch and Thomas M Fisher, *International Trade Regulation, Law and Policy in the WTO, The European Union and Switzerland: Cases, Materials and Comments* (2005) at 603.

³⁷ Esther J De Haan, 'Balancing Free Trade in Water and the Protection of Water Resources in GATT' in Edward HP Brans et al, eds, *The Scarcity of Water: Emerging Legal and Policy Responses* (1997) 245 at 245–58.

³⁸ Isable Dendauw, 'The Great Lakes Region and Bulk Water Exports, Issues of International Trade in Water' (2000) 25(4) *Water Intl* 565 at 565–71.

The cornerstone rules of the GATT are Articles I, III, and XI. Specifically, Article I introduces the most favoured nation clause,³⁹ according to which member states shall grant equal treatment of like products originating in, or destined for, the territories of all other contracting parties.⁴⁰ In other words, member states are not allowed to provide any advantage, favour, privilege, or immunity to only one importing or exporting WTO member state of fresh water, in case there is more than one fresh water importing or exporting member state. Article III introduces the national treatment principle,⁴¹ which states that:

The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.⁴²

According to this article, once a good has entered a market, the treatment that shall be applied to it must be equal to that applied in other domestic and/or foreign goods. Member states are prohibited to discriminate between domestic and foreign goods, according to their production process. For example, when importing bottled water, a member state cannot adopt and apply specific legislation for the imported product when this legislation is not or cannot be applicable to domestic bottled water. Paragraph 4 of the same article provides that member states shall not accord less favourable treatment to imported products than that provided to like products of national origin.⁴³

The term 'like products' found in GATT Articles I and III plays an important role in the treatment granted.⁴⁴ The question that arises is under which circumstances one imported product is considered to be a 'like product' to the domestic one. In water trade, any given answer is rather complicated because it needs to be holistic and take into consideration numerous factors and not merely concern taxation or tariff classification. These include technical elements, such as physical, chemical, inorganic, and mineral characteristics and must be examined between two water products in order to confirm that they are 'like products.' Furthermore, according to the first paragraph of GATT Article XI, no prohibition or restriction shall be instituted or maintained by any member state on the importation of any product of the territory of any other contracting party or on the export of any

³⁹ Michael J Trebilcock and Robert Howse, *The Regulation of International Trade* (3rd edn, 2005) at 49.

⁴⁰ GATT, *supra* note 15, art I.

⁴¹ Peter Van Den Bossche, *The Law and Policy of the World Trade Organization* (2005) at 326.

⁴² GATT, *supra* note 15, art III.

⁴³ *Ibid.*, art III at para 4.

⁴⁴ Won-Mog Choi, *Like Products in International Trade Law: Towards a Consistent GATT/WTO Jurisprudence* (2003).

product destined for the territory of any other member state.⁴⁵ When trading water, this rule poses a limitation on WTO member states since it dictates that they must refrain from adopting national policies or legislation that prohibit or restrict imports or exports.

Exceptions to the aforementioned rule are included in the second paragraph of Article XI. National prohibitions or restrictions are forbidden and constitute a deviation from Article XI, paragraph 1, unless they are covered from the exceptions provided in the next paragraph. In cases of international water trade, paragraph 2(a) is the most appropriate since it permits the adoption of temporal prohibitions or restrictions in order to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party.⁴⁶ This exception sets specific requirements, applied cumulatively: (1) the measure has to be temporal and (2) the measure has to be adopted for the prevention or relief of critical shortages of food or other products essential to the exporting contracting party.

Specifically, in order to be justified, the restrictive measures must have a specific time frame,⁴⁷ and, at the same time, they must respond to an extreme situation, which is defined as critical shortages of food or other products that are essential for a nation. The word ‘critical’ sets the threshold; however, it does so without providing for the criteria that define it. In water trade, the link between a restrictive measure and the necessity it calls to serve can be identified on the basis of the term ‘critical shortages of food’; freshwater resources are without doubt essential for states, interlinked with national sovereignty, environmental security,⁴⁸ and food production,⁴⁹ and, thus, a restrictive measure in situations where water is not sufficient for food production can trigger the exception of paragraph 2(a) Article XI of the GATT.⁵⁰ Extreme weather events that are able to cause water scarcity and, consequently, critical food shortages⁵¹ include, *inter alia*, droughts or unexpected drinking water contamination due to accident or natural

⁴⁵ GATT, *supra* note 15, art XI at para 1.

⁴⁶ *Ibid* at para 2(A).

⁴⁷ The specific time frame results in a ‘fixed-time-limit’ for the restrictive measure. Valerie Hughes and Gabrielle Marceau, ‘WTO and Trade in Natural Resources’ in Laurence Boisson De Chazournes, Christina Leb and Mara Tignino, eds, *International Law and Freshwater: The Multiple Challenges* (2013) 266 at 267.

⁴⁸ Jutta Brunnée and Stephen J Toope, ‘Environmental Security and Freshwater Resources: A Case for International Ecosystem Law’ (1994) 5(1) YIEL 41 at 41–76; Jutta Brunnée and Stephen J Toope, ‘Environmental Security and Freshwater Resources: Ecosystem Regime Building’ (1997) 91(1) AJIL 26 at 26–59.

⁴⁹ Chi Zhang et al, ‘Water-Energy-Food Nexus: Concepts, Questions and Methodologies’ (2018) 195 J Cleaner Prod 625 at 625–39.

⁵⁰ For the relationship between international law and water scarcity, see Edith Brown Weiss, *International Law for a Water-Scarce World* (2013).

⁵¹ The impacts of climate change in freshwater resources also affect food production. Johan Rockström, Louise Karlberg and Malin Falkenmark, ‘Global Food Production in a Water-Constrained World: Exploring Green and Blue Challenges and Solutions’ in R Quentin Grafton and Karen Hussey, eds, *Water Resources Planning and Management* (2011) 131 at 132–3.

disasters.⁵² For the adoption of a restrictive measure in water trade on the basis of Article XI, paragraph 2(a), careful consideration and a balance between the purpose of the measure (conservation of freshwater resources), on the one hand, and food security, on the other, is necessary.⁵³

While paragraph 2 is an incorporated exception to the first paragraph of Article XI, Article XX sets the general exceptions, which allow member states to deviate from the rest of the GATT's provisions in order to protect certain interests. The restrictive measures must rely on a list of ten general categories, two of which are the most suitable for international water trade:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: . . .

(b) necessary to protect human, animal or plant life or health; . . .

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.⁵⁴

The first exception of subparagraph (b) refers to the adoption of state restrictive measures for the protection of human, animal, or plant life or health. Given the indispensability of water for human life and health,⁵⁵ restrictive measures for the preservation of good quality water in a sufficient quantity can be justified. As a counter-argument, an affected member state could claim that the negative consequences of such a measure in international trade are disproportionate to the goal—the protection of biodiversity—and, thus, the adopted measure is not necessary.⁵⁶

The second exception of subparagraph (g) incorporates two requirements that must be met cumulatively: the measure adopted must aim at the preservation of 'exhaustible natural resources' and, at the same time, restrictive measures must be adopted in domestic production or consumption. The starting point for the adoption of a restrictive measure justified under subparagraph (g) of Article XX in international water trade is the following question: are freshwater resources 'exhaustible natural resources'? The debate on the status of freshwater resources and, particularly, whether they are renewable or exhaustible is depicted, on the

⁵² Edith Brown Weiss, 'Water Transfers and International Trade Law' in Edith Brown Weiss, Laurence Boisson de Chazournes and Nathalie Bernasconi-Ostewalder, eds, *Fresh Water and International Economic Law* (2005) 61 at 71.

⁵³ This is also provided in the agreement on agriculture. Agreement on Agriculture, 1994, 1867 UNTS 410, art 12 at para 1.

⁵⁴ GATT, *supra* note 15, art XX at paras (b), (g).

⁵⁵ *Human Right to Water and Sanitation*, UNGA Resolution A/Res/64/292 (28 July 2010), Agenda Item 48.

⁵⁶ Francesco Sindico, 'Water Export Bans for Environmental Purposes before the WTO: A Reflection of the Difficult Relationship between Trade and the Environment' (2007) 60 RHDI 153 at 153–72.

one hand, in the preamble of the Water Framework Directive, which states that surface water and ground water are in principle renewable natural resources⁵⁷ and, on the other hand, the Dublin Principles, according to which water resources are finite.⁵⁸

A negative answer to the above question is based on the fact that water moves in a hydrological cycle, and, hence, water resources have the ability to recharge.⁵⁹ A positive answer chooses to approach the issue in an integrated manner,⁶⁰ recognizing the equilibrium between utilization and supply. Sustainable Development Goal no. 6 is a fine example of this approach, focusing on the need to increase water use efficiency across all sectors and ensure sustainable withdrawals and supply of fresh water in order to address water scarcity.⁶¹

It is true that, in certain regions of the planet, especially arid or semi-arid regions, the pace of water renewal is slower than the pace of its utilization, which is also affected by climate change, resulting in the reduction of water quantity and the occurrence of water scarcity.⁶² Especially when it comes to the extraction of groundwater, it has been observed that it can exceed replenishment, and, in cases where humans have overexploited water resources, it may become non-renewable or exhaustible. In addition, geological formations of groundwater, such as confined aquifers, which is ground water that is not related to a water-course,⁶³ has shown that the recharge of certain freshwater resources presents difficulties and weaknesses. For conservation purposes, it would be wiser to treat such cases of freshwater resources as ‘exhaustible natural resources’ rather than as a renewable resource.

The question of whether freshwater resources are renewable or exhaustible should be answered on an ad hoc basis and in a holistic manner, taking into account the morphological characteristics of the river basin, water uses, and the rate of water replenishment. The word ‘exhaustible’ itself entails a risk (and not a certainty) and the possibility for the natural resources to become extinct if not treated viably. Of course, the vital importance of water for human life, health, and the environment must be addressed in every case. The need to conserve freshwater resources, in cases and places where they are in danger, is a strong

⁵⁷ ‘Surface waters and groundwaters are in principle renewable natural resources.’ Water Framework Directive, *supra* note 9, preamble at para 28.

⁵⁸ *Dublin Statement*, *supra* note 5, Principle no 1.

⁵⁹ Howard Latimer Penman, ‘The Water Cycle’ (1970) 223(3) *Scientific American* 98 at 98–110; Hans-Jürgen Liebscher, ‘The Role of Hydrology in Water Resources Management’ in Hans-Jürgen Liebscher et al, eds, *The Role of Hydrology in Water Resources Management* (2009) 1 at 1–6.

⁶⁰ Neil S Grigg, *Integrated Water Resources Management: An Interdisciplinary Approach* (2016).

⁶¹ *Transforming Our World*, *supra* note 6, Sustainable Development Goal no 6.4.

⁶² Framework Convention on Civil Defence Assistance, 2000, 2172 UNTS 213, art 4 at para 1(3).

⁶³ ‘Aquifer overlain and underlain by an impermeable or almost impermeable formation.’ World Meteorological Organization and United Nations Educational Scientific and Cultural Organization, *International Glossary of Hydrology* (2012) at 62; see also Gabriel E Eckstein, ‘Protecting a Hidden Treasure: The UN International Law Commission and the International Law of Transboundary Groundwater Resources’ (2005) 5(1) *Sustainable Dev L Pol* 5 at 5–12.

argument for the adoption of a trade restrictive measure of GATT Article XX(g),⁶⁴ provided that it is also effective at the domestic level. The earlier-mentioned exceptions of subparagraphs (b) and (g) of Article XX apply along with the prerequisites of the chapeau of the same article;⁶⁵ the restrictive measures must not constitute arbitrary or unjustifiable discrimination between countries where the same conditions prevail. In international water trade, the expression ‘where the same conditions prevail,’ complicates the justification of a restrictive measure adopted under the exception of subparagraph (g).

‘Same conditions’ corresponds to conditions that are identical and nothing less—that is, similar. Regarding the environment, it is rather difficult to find identical conditions. Ecosystems, including aquatic, have unique characteristics, and, thus, each of them is inherently different from the others. In this context, an argument that the same conditions prevail in ecosystems of different countries cannot not be supported efficiently. Therefore, the justification of national restrictive measures in water trade on the basis of the conservation of exhaustible natural resources becomes more complicated, due to the requirement of the chapeau of Article XX on the prevalence of ‘same conditions.’ In this context, restrictive measures for the protection of freshwater resources on the basis of subparagraph (g) of GATT Article XX⁶⁶ must be examined cautiously before being adopted.

By agreeing that both bottled and bulk water are tradable goods falling under the definition of ‘primary products,’ the GATT appears to be the most appropriate forum for the regulation of international water trade. This part of the article has examined the provisions that could be applied in water trade between member states as well as the rules that allow for trade restrictive measures when it is deemed necessary for the protection of humans and the environment. Since free trade, including water trade, is the ‘rule’ in the WTO, the GATT’s exceptions come with certain requirements that constitute challenges to their applicability, especially if we take into account that the survival of the planet relies on good quality water in a sufficient quantity and, thus, that the conservation of freshwater resources appears to be a priority.

III. WTO JURISPRUDENCE AS A GUIDE FOR FUTURE DISPUTES ON WATER TRADE

The previous part of the article dealt with the GATT’s provisions, their terminology, and their applicability in water trade, with an emphasis on the exceptions that justify trade restrictive measures. Until now, in WTO jurisprudence, there has been no dispute regarding international water trade and the justification for

⁶⁴ Bryant Walker Smith, ‘Water as a Public Good: The Status of Water under the General Agreement on Tariffs and Trade’ (2009) 17 *Cardozo J Intl Comp L* 291 at 291–314.

⁶⁵ Sanford E Gaines, ‘The WTO’s Reading of the GATT Article XX Chapeau: A Disguised Restriction on Environmental Measures’ (2001) 22(4) *U Pa J Intl Econ L* 739 at 739–863.

⁶⁶ Brown Weiss, *supra* note 52 at 73.

such measures; however, the jurisprudence of the WTO can be very enlightening for interpreting the GATT and its exceptions and can be used as guidance for the adoption of trade restrictive measures for the protection of freshwater resources. The analysis that follows examines selected case law from the WTO, its usefulness in justifying water trade restrictive measures, and its potential analogical applicability on future disputes regarding international water trade. It follows on from the first part of the article and focuses on certain terms and expressions of the GATT that are relevant to water trade and how they have been interpreted so far by the WTO dispute settlement mechanisms. The examples of case law analysed below have been chosen as the most representative and related to the scenario of a water trade dispute.

Starting with the identification of the status of water as a good or product under the GATT, the Appellate Body in the *United States – Lumber* case ruled that ‘standing, unfelled trees,’ which are trees in their natural status, are to be considered as a good under the GATT.⁶⁷ Applying the *dictum* of the Appellate Body to international water trade, it can be argued that water in its natural state, which can be removed from the source and transferred, can also be considered a good under the GATT. Due to its uniqueness and vital importance for life and health, there are differentiations from other natural resources, such as trees, and, therefore, particular—perhaps more protective—approaches should be considered for its regulation.

Moreover, the *European Community – Asbestos* case is reflective of the emerging challenges posed when the term ‘like products’ is to be applied. Initially, the panel judged that the products containing asbestos imported from Canada to France were ‘like’ the French domestic substitutes and, therefore, that the French measure accorded imported products less favourable treatment than domestic products. However, the Appellate Body reversed the panel’s findings and stated that, for the determination of ‘likeness,’ different criteria should be taken into account, such as the risk to health posed by the products and, in any case, they should be examined on a case-by-case basis.⁶⁸ According to this case, when attempting to justify a restrictive measure in water trade, it would be difficult to support ‘likeness’ between two products—either bottled or bulk—due to the different physical characteristics of the good *per se*—for example, it is very difficult to find two bottled water products that have the identical analysis of chemical substances and, hence, identify them as ‘like products.’

⁶⁷ *United States – Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, Appellate Body Report, WT/DS257/AB/R (19 January 2004) at para 67 (*Softwood Lumber* case). The Appellate Body chose to follow a broader interpretation of the term ‘good’ in order to prohibit any deviation from subsidy provisions even in situations that a state grants benefits in a non-monetary form.

⁶⁸ *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, Appellate Body, WT/DS135/AB/R (12 March 2001) at para 101 (*Asbestos* case).

The difficulty in supporting two or more water products as ‘like products’ also stems from process or production methods (PPMs).⁶⁹ The PPMs are part of the GATT’s notion of ‘primary products,’ and they are linked with environmental concerns, the achievement of sustainable development, and higher quality of life for all people.⁷⁰ In the cases *United States – Alcoholic Beverages*,⁷¹ *United States – Automobile Taxes*,⁷² and *United States – Gasoline*,⁷³ the imposition of higher standards for the production of imported products than those imposed for domestic products was considered a violation of the national treatment clause. In international water trade, PPMs can vary, and they can include a vast range of processes ranging from the methods of water extraction from the source, to its purification, and to bottling or transportation through pipelines or by way of super tankers, each of them posing different threats to the environment.⁷⁴ Therefore, it appears almost impossible to trace ‘like’ water products, which justifies examining trade restrictive measures for the conservation of freshwater resources and ecosystems under the general exceptions of GATT Article XX.

As mentioned in the previous part, subparagraph (b) of Article XX permits the adoption of trade restrictive measures that are necessary for the protection of human, animal, or plant life or health, and it is usually applied on imports,⁷⁵ but it can be applied for exports as well.⁷⁶ The WTO’s Appellate Body has stated that member states have the right to determine the level of protection of health that they consider appropriate in a certain situation.⁷⁷ In the same vein, the Appellate Body has recognized the right and duty of WTO members to protect the life and health of their people.⁷⁸ The challenge in adjudicating Article XX(b)

⁶⁹ Erich Vranes, *Trade and the Environment* (2009) at 69–93; Organization for Economic Co-Operation and Development, *Processes and Production Methods (PPMs): Conceptual Framework and Considerations on the Use of PPM-Based Trade Measures*, Doc OECD/GD(97)137 (January 1997); Amber Rose Maggio, *Environmental Policy, Non-Product Related Process and Production Methods and the Law of the World Trade Organization* (2017).

⁷⁰ Rio Declaration on Environment and Development 1992, 31 ILM 874 (1992), Principle 8.

⁷¹ *United States–Measures Affecting Alcoholic and Malt Beverages*, Panel Report, WT/DS23/R – 39S/206 (19 June 1992).

⁷² *United States – Taxes on Automobiles*, Panel Report, WT/DS31/R (11 October 1994).

⁷³ *United States – Standards for Reformulated and Conventional Gasoline*, Panel Report, WT/DS2/R (29 January 1996).

⁷⁴ See Walter Kennedy Dodds, *Freshwater Ecology: Concepts and Environmental Applications* (2002) at 161; Shanaugh F McKay and Alison J King, ‘Potential Ecological Effects of Water Extraction in Small, Unregulated Streams’ (2006) 22 *River Research and Application* 1023–37.

⁷⁵ *Asbestos case*, *supra* note 68; *United States – Standards for Reformulated and Conventional Gasoline*, Appellate Body Report, WT/DS2/AB/R (29 April 1996) (*Gasoline case*); *United States – Restrictions on Imports of Tuna*, Panel Report, GATT/Ds29/R (16 June 1994) (*Tuna-Dolphin II*).

⁷⁶ Boisson De Chazournes, *Fresh Water in International Law* (2013) at 89.

⁷⁷ *Asbestos case*, *supra* note 68 at para 168.

⁷⁸ *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, Appellate Body Report, WT/DS26/AB/R, WT/DS48/AB/R (13 February 1998) at para 177.

is to prove that a contested measure is ‘necessary.’⁷⁹ In the jurisprudence of the WTO, there is not a certain test for the determination of the term ‘necessary.’ Specifically, in the *Korea – Beef* case, this term has been interpreted including ‘a range of degrees of indispensability,’ while indispensability is not referred as a *sine qua non* precondition in Article XX.⁸⁰ Furthermore, when examining the necessity of a trade restrictive measure, various factors must be taken into account, such as its impact on the regulation and the impact of the regulation on trade as well as the importance of common interests or values that need to be protected.⁸¹

Since water is indispensable—and not just necessary—for human, animal, and plant health or life, a trade restrictive measure could be implemented both for imports and exports if water trade poses a threat to biodiversity or ecosystems or leads to shortages of water necessary for human consumption or food production.⁸² Such a restrictive measure fulfils the requirements of subparagraph (b) of GATT Article XX since it would be necessary to protect either the life or health of the population or the maintenance of ecosystems. In this context, the term ‘necessary’ includes a degree of precaution;⁸³ in water trade, this is reflected in restrictive measures adopted to prevent or deal with a risk posed on human, animal, or plant life or health. For example, prohibitions or restrictions on water exports could be justified on the basis of water scarcity, threatening the life and health of the population and animals as well as agricultural production.

Moreover, GATT Article XX(g) contains a basis for the adoption of restrictive measures in water trade for the protection of ‘exhaustible natural resources.’ Before proceeding with examples from the jurisprudence of the WTO, it is important to distinguish between living and non-living resources. Non-living natural resources⁸⁴ are easier to be defined as exhaustible, especially those that cannot be renewed, such as oil. On the contrary, it is dubious whether living resources, which are capable of reproduction, should be included in the term ‘exhaustible.’ Water as a natural resource is somewhere in the middle; it is a non-living resource that can be renewed, but, in certain cases (described earlier), this is almost impossible. Given these facts, in a dispute regarding water trade, can an argument regarding the exhaustibility of freshwater resources stand before the dispute settlement bodies of the WTO?

⁷⁹ Ming Du, ‘The Necessity Test In World Trade Law: What Now?’ (2016) 15(4) *Chinese J Intl L* 817 at 817–47.

⁸⁰ *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, Appellate Body Report, WT/DS161/AB/R, WT/DS169/AB/R (11 December 2000) at para 161.

⁸¹ *Ibid* at paras 162, 164.

⁸² Piotr Szwedo, *Cross Border Water Trade: Legal and Interdisciplinary Perspectives* (2018) at 103.

⁸³ Jonathan B Wiener, ‘Precaution’ in Daniel Bodansky, Jutta Brunnée and Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (2007) 597 at 597–612.

⁸⁴ Raw material, metal, or oil are fine examples of non-living natural resources capable of depletion. Steve Charnovitz, ‘Exploring the Environmental Exceptions in GATT Article XX’ (1991) 25(5) *J World Trade* 37 at 45–7.

It is true that over the years the jurisprudence of the WTO has followed a broader interpretation of the term ‘exhaustible natural resources’⁸⁵ and has also included living resources, despite their reproduction ability. Typical examples of this are cases including tuna,⁸⁶ dolphins,⁸⁷ herring and salmon,⁸⁸ as well as turtles.⁸⁹ Specifically, in the famous *Shrimp/Turtle* decision, the Appellate Body reiterated the purpose of the WTO to assist in the achievement of sustainable development and stated that the term ‘exhaustible natural resources’ does not fall within a static interpretation but, on the contrary, falls within an evolutionary interpretation,⁹⁰ and it should be read along with the objective of sustainable development, which is found in the preamble of the WTO Agreement.⁹¹ According to the *dictum* of the Appellate Body:

[o]ne lesson that modern biological sciences teaches us is that living species, though in principle capable of reproduction, and in that sense, ‘renewable,’ are in certain circumstance susceptible of depletion, exhaustion and extinction, frequently because of human activities. Living resources are just as ‘finite’ as petroleum, iron ore and other non-living resources.⁹²

The terminology of the Appellate Body on living species reflects the characteristics of freshwater resources, despite the fact that they are non-living entities. Even if we accept that freshwater resources are renewable, such as other living resources, this does not mean that they do not suffer from depletion and exhaustion as a result of human pressures and climate change effects. Thus, they can become as ‘finite’ as non-living resources. It should be underlined that the Appellate Body used the word ‘finite,’ which is exactly the same word included in the first principle of the Dublin Statement.⁹³

One more relevant case before the WTO Appellate Body is the *United States – Gasoline* case.⁹⁴ There are similarities between fresh water and clean air than there are between fresh water and living resources, since both are non-living resources, physically renewable, but still suffering from depletion. The Appellate Body first examined the requirements of subparagraph (g) of GATT Article XX

⁸⁵ Initially, the term ‘exhaustible natural resources’ was related to stock natural resources, but, over time, the term also covers renewable resources such as animals, plants, and fish. Nico Schrijver, *Sovereignty over Natural Resources, Balancing Rights and Duties* (1997) at 15.

⁸⁶ *United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, Panel Report, L/5198-29S/91 (22 February 1982).

⁸⁷ *Tuna Dolphin II*, *supra* note 75.

⁸⁸ *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, Panel Report, L/6268-35s/98 (20 June 1987).

⁸⁹ *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, Appellate Body Report, WT/DS58/AB/R (12 October 1998) (*Shrimp/Turtle* case).

⁹⁰ *Ibid* at paras 129–30.

⁹¹ WTO Agreement, *supra* note 17, preamble.

⁹² *Shrimp/Turtle* case, *supra* note 89 at para 128.

⁹³ *Dublin Statement*, *supra* note 5, Principle no 1.

⁹⁴ *Gasoline* case, *supra* note 75 at 18.

and found that ‘clean air’ is an ‘exhaustible natural resource’ and that the measure adopted to reduce its depletion aimed at the conservation of clean air and, thus, satisfied the provisions of subparagraph (g). The similarities between the physical characteristics of clean air and fresh water as well as the findings of the Appellate Body promote the argument that freshwater resources are ‘exhaustible natural resources.’

Furthermore, any trade restrictive measure must be effective in conjunction with restrictions on domestic production or consumption. In the *China – Raw Materials* case, the Appellate Body clarified that export restraints must go hand in hand with restraints on domestic production or consumption and that they need not ‘be primarily aimed at making effective the restrictions on domestic production or consumption.’⁹⁵ Consequently, controls on the exportation of the goods extracted from natural resources are only permissible according to the requirements of GATT Article XX. This sets an important precedent in the development of WTO jurisprudence in the area of export controls.⁹⁶

In the *China – Rare Earths* case, the panel confirmed this precedent and stated that:

[r]esource-endowed Members may take their sustainable economic development needs into account in designing a conservation policy that manages the supply and use of exhaustible resources in a way that takes into account the challenge using and managing resources in a sustainable manner that ensures the protection and conservation of the environment while promoting economic development.⁹⁷

The Appellate Body, in its turn, stated that the panel’s interpretation of the term ‘relating to’ demonstrated that GATT-inconsistent measures are determined on a ‘case-by-case’ basis. To support this position, the Appellate Body reiterated the panel report, which stated that ‘a measure’s compliance with Article XX(g) can be determined only on the basis of a holistic assessment of whether the challenged measure relates to the conservation of rare earths and is made effective in conjunction with restrictions on domestic production or consumption.’⁹⁸ In international water trade, a state is not obliged by the WTO’s provisions to exploit its freshwater resources and allow other member states to have access to them. However, once fresh water is collected from the source in order to be

⁹⁵ *China – Measures Related to the Exportation of Various Raw Materials*, Appellate Body Report, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R (30 January 2012) at para 356.

⁹⁶ Umair Ghori, ‘An Epic Mess: Exhaustible Natural Resources and the Future of Export Restraints after the China – Rare Earths Decision’ (2015) 16(1) Melbourne J Intl L 1 at 11.

⁹⁷ *China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum*, Panel Report, WT/DS431/R, WT/DS432/R, WT/DS433/R (26 March 2014) at para 7.451.

⁹⁸ *Ibid* at para 5.108. The fact that the Appellate Body confirmed the panel’s approach to Article XX(g) has raised questions as to how this defence will operate in the future. Joel P Trachman, ‘The WTO Jurisprudence of Article XX(G) and the Conservation of Natural Resources’ in Julien Chaisse and Tsai-Yu Lin, eds, *International Economic Law and Governance: Essays in Honour of Mitsuo Matsushita* (2016) 58.

internationally traded, an export restriction can be imposed along with policies for the conservation of the resources, accompanied by national prohibitions for extraction out of the river basin.

Both subparagraphs (b) and (g) of Article XX set thresholds, which address different measures and policies: on the one hand, those thresholds that are ‘necessary’ for the protection of life and health on the planet and, on the other hand, those ‘relating to’ the conservation of exhaustible natural resources. According to WTO jurisprudence, measures that could protect human health, such as a measure addressing air pollution, was found to fit within subparagraph (g)—and not within paragraph (b)—based on the fact that clean air is an exhaustible natural resource. Also, measures for the protection of animal life (sea turtles) provided in subparagraph (b) were characterized as measures falling within paragraph (g).

Since there is flexibility regarding the justification of trade restrictive measures under subparagraphs (b) and (g) of GATT Article XX, the following question should be answered: what is more convenient for a state: to fit a trade restrictive measure within the provisions of Article XX(b) or with Article XX(g)? It is true that the necessity test of subparagraph (b) for the justification of a measure sets a higher threshold than the threshold set by the term ‘relating to’ of subparagraph (g).⁹⁹ Thus, it is easier to comply with the threshold of subparagraph (g) since it does not have to meet the necessity test. In water trade, the choice between subparagraph (b) or (g) in order to justify a restrictive measure must be made ad hoc and based on the facts of each case. Given that freshwater resources are indispensable (and not just necessary) for life and health, while, under certain circumstances, they can be exhaustible, it seems that in a hypothetical dispute both subparagraphs of Article XX can be suitable, regardless of the different thresholds.

The chapeau of Article XX sets further requirements for recourse to the general exceptions for justifying trade restrictive measures. For the interpretation of the chapeau, the Appellate Body sought guidance from general principles of international law, while recourse to Article XX must be exercised reasonably.¹⁰⁰ In the *Shrimp/Turtle* case, the Appellate Body stated that a measure constitutes ‘unjustifiable discrimination’ when it applies a rigid standard that does not take into account the ‘different conditions’ in exporting countries.¹⁰¹ In the *United States – Gasoline* case, when the Appellate Body moved to the examination of the chapeau of Article XX, it found that the measures adopted do not satisfy the

⁹⁹ Bradley J Condon, ‘GATT Article XX and Proximity-of-Interest: Determining the Subject Matter of Paragraphs B and G’ (2004) 9 UCLA J Intl L & Foreign Aff 137 at 148. However, the fact that the threshold of subparagraph (b) is higher than that of subparagraph (g) does not imply that the latter is not still high *per se*. Since no consensus has been reached on the meaning and scope of the terms ‘exhaustible natural resources’ and ‘relating to’ in the WTO, the threshold for invoking Article XX(g) exception remains high. See Manjiao Chi, ‘Exhaustible Natural Resource’ in WTO Law: GATT Article XX(G) Disputes and Their Implications’ (2014) 48(5) J World Trade 939 at 939–66.

¹⁰⁰ *Shrimp/Turtle* case, *supra* note 89 at para 158.

¹⁰¹ *Ibid* at paras 163–4, 177.

requirements set and constitute ‘unjustifiable discrimination’ and ‘a disguised restriction on international trade.’ Consequently, the protection of sea turtles and clean air granted on the basis of Article XX was justified under subparagraph (g) but not under Article XX as a whole.¹⁰²

Despite the broader interpretation by the Appellate Body of the terms ‘necessary’ in subparagraph (b) and ‘exhaustible natural resources’ in subparagraph (g), trade restrictive measures for environmental purposes experience difficulties with respect to their justification on the basis of Article XX, given the number of requirements set in subparagraphs (b) and (g), the chapeau, and the fact that they must be met cumulatively. The adjudicative bodies of the WTO broadly interpreted the specific expressions and terms found in subparagraphs (b) and (g), and, in the end, the requirements of the chapeau of GATT Article XX were carefully considered and applied strictly. A possible explanation could be that the judicial bodies of the WTO do not seem eager to circumvent the cornerstone goal of the organization, which is the liberalization of international trade in order to grant higher protection to the environment and ecosystems.

So far, there has been no legal precedent dealing with the application of GATT Article XX concerning international water trade. In the scenario of a restrictive measure in water trade brought before the judicial bodies of the WTO, the preconditions of subparagraphs (b) and (g) are easier to meet, according to the WTO jurisprudence, than the preconditions of the chapeau. Even for fresh water, it seems that it would be difficult to support a trade restrictive measure when examining the chapeau of Article XX, especially when called to apply the requirement of ‘same conditions.’

Ecosystems, including aquatic, have unique characteristics and vital functions.¹⁰³ The term ‘same conditions’ complicates even more any efforts to justify water trade restrictive measures. However, the unique nature of water, which is essential to human existence, when challenged with scarcity and intrinsically linked with human rights and the environment must always be taken into account. States should not be constrained when regulating for its conservation,¹⁰⁴ and this must be a priority—not a normative priority of an assumed hierarchy of rules and principles of international law but, rather, a priority of life and well-being. Therefore, international trade can be constrained at times and, in certain situations (that is, water scarcity, droughts, water contamination), deemed necessary based on general international law¹⁰⁵ as well as on other regimes of law, such as

¹⁰² *Gasoline case*, *supra* note 75 at 29.

¹⁰³ Mike Muller and Christophe Bellmann, *Trade and Water: How Might Trade Policy Contribute to Sustainable Water Management?* (2016) at 15–17.

¹⁰⁴ Daniel Barstow Magraw and Deepika Padmanabhan, ‘Water and International Trade Law’ in Stephen C Maccaffrey, Christinal Leb and Riley T Denoon, eds, *Research Handbook on International Water Law* (2019) 205 at 212.

¹⁰⁵ Tapiwa V Warikandwa and Patrick C Osode, ‘Exploring the World Trade Organization’s Trade and Environment/Public Health Jurisprudence as a Model for Incorporating a Trade Labour Linkage

environmental law, and customary principles, such as sustainable development¹⁰⁶ and precaution.¹⁰⁷

The WTO's Appellate Body has explicitly stated that the GATT 'is not to be read in clinical isolation from public international law',¹⁰⁸ and it has also sought guidance, *inter alia*, from international environmental law conventions,¹⁰⁹ introducing the idea of taking into account non-trade concerns in WTO law.¹¹⁰ And this is how it should be: regardless of whether a state is a member to an international treaty, in dispute settlement procedures, all treaties with *erga omnes* rights and obligations, like the right to water¹¹¹ and the protection of the environment respectively, should be enforceable at the WTO level.¹¹² Since there has been no precedent on water trade disputes in the WTO and given the unique nature of water for the survival of mankind and the planet,¹¹³ any conclusion reached would simply be hypothetical at this stage. What seems most important is that, if a dispute finds its way before the panels of the WTO, it will be challenging and will demand the examination not only of other regimes of international law but also of technical aspects from other sciences.

IV. CONCLUSION

This article has examined the status of fresh water under the GATT. It has attempted to answer certain questions regarding its classification as a good or a product and the applicability of the GATT's provisions, always taking into account the unique and indispensable nature of water for humans, animals, and the environment. After an introduction, which presented the challenges of the multi-dimensional nature of fresh water, which affects all aspects of life and, thus, of international law, the analysis followed a logical two-part division. The first part delved into the GATT's provisions, while the second examined various examples

into the Organization's Multilateral Trade Regime: Should African Countries Accept a Policy Shift?' (2017) 25(1) *Afr J Intl & Comp L* 47 at 59.

¹⁰⁶ *Shrimp/Turtle* case, *supra* note 89 at para 140.

¹⁰⁷ On the basis of the precautionary principle, bulk water removals should be excluded from the GATT as a matter of anticipatory caution in the face of uncertainty about the future and on the basis of a state's exercising sovereign authority to its preserve freshwater resources. Brown Weiss, *supra* note 52 at 83–9.

¹⁰⁸ *Gasoline* case, *supra* note 75 at 18.

¹⁰⁹ *Shrimp/Turtle* case, *supra* note 89 at paras 128–30.

¹¹⁰ Gabrielle Marceau, 'A Call for Coherence in International Law: Praises for the Prohibition against "Clinical Isolation" in WTO Dispute Settlement' (1999) 33(5) *J World Trade* 87 at 87–152.

¹¹¹ *Human Right to Water and Sanitation*, *supra* note 55. For the *erga omnes* nature of the right to life, see Surya P Subedi, 'Regulation of Shared Water Resources in International Law: The Challenge of Balancing Competing Demands' in Surya P Subedi, ed, *International Watercourses Law for the 21st Century: The Case of the River Ganges Basin* (2005) 7 at 11–12.

¹¹² Joost Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International Law* (2003) at 475.

¹¹³ Stéphanie Kpenou, 'Fresh Water as a Common Heritage and a Common Concern of Mankind' in Mara Tignino and Christian Bréthaut, eds, *Research Handbook on Freshwater Law and International Relations* (2018) 2 at 2–30.

of WTO jurisprudence for comparison. The fact that water trade disputes are absent from the palette of the WTO leaves us no choice but to seek guidance from existing case law and practice.

An analysis of the differences between bottled and bulk water was conducted so as to decide whether each of these two forms of water in the market can be classified as goods or products under the GATT. The case of bottled water comes without serious objections that it constitutes a product and falls within the GATT's provisions; on the contrary, there are certain reservations for the acceptance of bulk water as a product of international trade. In order to provide predictability and a basis for regulation on international bulk water trade, which is indisputably a reality, it has been suggested that it be considered as a good under the GATT.

In this context, fundamental provisions of the GATT, such as Articles I, III, and XI apply. These provisions were analysed and applied analogically through hypothetical examples of state practice. Special emphasis was placed on Article XX, which contains the general exceptions that can justify trade restrictive measures under certain circumstances. For the purposes of this article, two exceptions were found to be most relevant, those of subparagraphs (b) and (g). Subparagraph (b) allows states to adopt trade restrictive measures that are necessary to protect human, animal, or plant life and health, and subparagraph (g) provides for measures that prohibit international trade of goods and apply also on the domestic level in order to conserve exhaustible natural resources. Of course, these requirements for trade restrictive measures must be met cumulatively with the requirements of the chapeau of GATT Article XX.

The terminology of the GATT's provisions as well as the technical characteristics of freshwater resources and their important role for humanity required a special reference to certain expressions. The applicability of the terms 'like products,' 'exhaustible natural resources,' 'same conditions,' and 'critical food shortages' was tested in international water trade. The conclusion drawn is that, for the justification of a water trade restrictive measure, an integrated approach is necessary; also, it must be examined on an ad hoc basis, taking into account factors not only from international law but also from other sciences, such as hydrology.

Certain disputes from the jurisprudence of the WTO appear to be most compatible with possible future disputes on water trade. Again, attention was placed on case law including adjudication on the exceptions of GATT Article XX(b) and (g). The preconditions of the subparagraphs along with those of the chapeau of Article XX that need to be met for the justification of trade restrictive measures for environmental purposes render the latter rather difficult. However, fresh water demands a different, more protective approach, due to its uniqueness; when there is a risk for the population and the environment—for example, due to water scarcity—international trade of fresh water must be restrained for the protection of present and future generations. This is not merely an international law obligation but, rather, a life imperative, based on ethics and human rights.

The goal of this article was to illustrate that international water trade is a reality, either bottled or bulk. And this reality cannot be ignored by international law. Consequently, the inclusion of fresh water as a good or product in the GATT would provide a regulatory framework and certainty. The fact that no disputes have occurred so far between member states of the WTO regarding restrictive measures in water trade raises some questions as to how the judicial bodies will address them. The existing case law provides guidance, but it is not very optimistic for the conservation of freshwater resources; however, fresh water is a *sui generis* good, and any judgment needs to encapsulate the applicability of the GATT's provisions in the unbreakable sphere of water and life.