1. Bulk fresh water resources and the GATT

In the absence of any formal exclusion from the scope of the GATT, one could make the basic argument that, *a contrario*, water is to be considered a tradable good subject to the GATT.\(^{108}\) Moreover, water is mentioned under several tariff headings of the ‘Harmonised Commodity Description and Coding System’\(^{109}\) (Harmonised System or HS).\(^{110}\) The HS is a harmonised classification system for customs purposes. WTO Members base their schedules of commitments almost exclusively on this system.\(^{111}\) The HS can therefore be useful in interpreting the GATT.\(^{112}\)

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\(^{110}\) Tariff Heading 22.01 of the HS includes: ‘Waters, including natural or artificial mineral and aerated waters, not containing added sugar or other sweetening matter nor flavoured; ice and snow’; Tariff Heading 22.02 of the HS includes: ‘Waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured, and other non-alcoholic beverages, not including fruit or vegetable juices of heading 20.09’; Tariff heading 25.01 of the HS includes: ‘sea water’; see Harmonized System Codes (HS Code), available at http://www.foreign-trade.com/reference/hscode.htm (last accessed on 31 August 2016).


\(^{112}\) See Thomas Cottier and Matthias Oesch, *International Trade Regulation, Law and Policy in the WTO, the European Union and Switzerland* (Bern/London:
The fact that water is mentioned under a tariff heading of the HS does not, however, necessarily mean that water is to be considered as subject to the GATT. For the GATT to be formally applicable to water, water is required to have the status of a ‘good’ or ‘product’. Interestingly, in the US – Lumber case the Appellate Body of the WTO ruled that ‘standing, unfellled trees’ – thus trees in their natural state – are to be considered as a good subject to the GATT. The Appellate Body came to this conclusion by investigating the definition of a good as expressed in article 1.1(a)(1)(iii) of the WTO Agreement on Subsidies and Countervailing Measures (ASCM), including the meaning of a good in the French (‘biens’) and the Spanish (‘bienes’) version of the ASCM. The Appellate Body, however, also emphasised the fact that the term ‘goods’ as expressed in article 1.1(a)(1)(iii) ASCM and the term ‘products’ as expressed in article II GATT are used in a different context and therefore do not necessarily have the same meaning. In the case of water, it is mostly argued that there should be some form of human intervention, for
example, bottling,\textsuperscript{119} pumping, purification, or even the mere removal of
bulk fresh water out if its natural bed, in order to convert fresh water in
its natural state into a tradable good or product.\textsuperscript{120} Lorenzmeier uses the
criterion of ‘controllability’ over water.\textsuperscript{121} One could, however, also make
a distinction between the fact that bulk fresh water is merely dammed or
flooded (‘controlled’ but not a good), and the fact that bulk fresh water is
redirected by pipeline to a certain destination from where it can be
further processed (already a good).\textsuperscript{122} However, the fact that a certain
fresh water resource, such as a well, an aquifer, a lake, or a certain other
bulk amount of fresh water is put up for sale, could lead to the
conclusion that any such particular fresh water resource is already
considered to be a tradable good or product.\textsuperscript{123} Moreover, this assump-
tion is in line with the rulings of the Appellate Body in the above-
mentioned US – Lumber CDVs Final case, where the investigation of the
definition of a good, resulted in the acceptance of a rather broad
interpretation, including ‘property or possessions’.\textsuperscript{124} It is generally
argued, however, that water in its natural state – due to its uniqueness and
crucial importance for life itself – substantially differs from other natural
resources, such as standing trees, and should therefore also receive a
different treatment under the GATT.\textsuperscript{125} Nevertheless, in the absence of
any formal exclusion from the scope of the GATT, ambiguity remains.\textsuperscript{126}

\textsuperscript{119} There is no reasonable doubt about the fact that bottled water in
well-defined standard quantities is a tradable good covered by GATT and
NAFTA; see \textit{inter alia} Alix Gowlland Gualtieri (2010), \textit{supra} footnote 107, at 63. Also beverages containing water are a tradable good covered by GATT and
NAFTA; see \textit{ibid}.

\textsuperscript{120} See e.g., Laurence Boisson de Chazournes (2013), \textit{supra} footnote 114, at
85; Melanie Berger (2013), \textit{supra} footnote 17, at 20–8; Esther J. De Haan

\textsuperscript{121} See Stefan Lorenzmeier, \textit{Wasser als Ware}, Augsburger Rechtsstudien

\textsuperscript{122} See Edith Brown Weiss, ‘Water Transfers and International Trade Law’
in Edith Brown Weiss, Laurence Boisson de Chazournes and Nathalie
Bernasconi-Osterwalder (eds.), \textit{Fresh Water and International Economic Law}
(Oxford: Oxford University Press, 2005), 61–89, at 68; Scott Philip Little (1996),
\textit{supra} footnote 102, at 141.

\textsuperscript{123} See Laurence Boisson de Chazournes (2013), \textit{supra} footnote 114, at 85;

\textsuperscript{124} See \textit{US – Lumber CDVs Final} (AB), at paragraph 59.

\textsuperscript{125} See, \textit{inter alia}, Melanie Berger (2013), \textit{supra} footnote 17, at 16.

\textsuperscript{126} See Edith Brown Weiss (2005), \textit{supra} footnote 122, at 68–9.
Concerning bulk fresh water removed from its natural state, there is little doubt that it is to be considered as a tradable good subject to the GATT. In this sense, Urueña even argues that international economic law has become the ‘default language’ of (fragmented) ‘Global Water Governance’ (GWG). Human rights and international environmental law are thereby merely to be considered as ‘two competing legal regimes’ against international economic law. However, one must thereby take into account that human rights and international environmental law must react to certain facts created by international trade flows, and are forced to ‘run behind’ these facts, rather in the sense of a policeman chasing after a (presumed) criminal. From Urueña’s viewpoint, however, and considering the uniqueness of the resource ‘water’ in combination with the ambiguity in which the WTO currently still deals with environmental and human rights issues, the paramount question is no longer whether bulk fresh water is a tradable good and subject to the GATT, but rather whether bulk fresh water resources should be (temporarily) excluded from the GATT as a precautionary measure. The answer to this question particularly depends on the future sensibility of WTO dispute settlement bodies to environmental and human rights concerns, more specifically to the sustainable use of fresh water resources and the promotion of the human right to water. Also, conflicts between WTO trade law and international, regional and bi-national water treaties and agreements are to be expected. It is thus also important to see how WTO dispute settlement would take into account such water treaties and agreements. Finally, one should also question what exactly would be the benefit for sustainable (global) water governance if bulk fresh water would be formally excluded from the scope of the GATT.

127 See Melanie Berger (2013), supra footnote 17, at 28; Edith Brown Weiss (2005), supra footnote 122, at 67.
130 See Edith Brown Weiss (2005), supra footnote 122, at 67.
I. THE PRECAUTIONARY APPROACH

Contrary to Urueña, Brown Weiss argues that even if water is removed in bulk and lifted out of its natural state, this should not directly lead to the resigned assumption that bulk fresh water is a tradable good subject to GATT rules. At least one additional step should be taken by transforming the water into traditional products already subject to GATT, such as bottled water. Given the uniqueness of fresh water as a resource essential to all life, Brown Weiss, however, argues to completely exclude bulk fresh water removals from the scope of the GATT, as a matter of ‘anticipatory caution’. According to Brown Weiss ‘anticipatory caution’ as applied to fresh water resources implicates: ‘that in the face of uncertainty about the future, a country should be able to exercise its sovereign authority to maintain its fresh water resources without having to convince the trade community of the legitimacy of its actions’. The reason for such an ‘anticipatory caution’ approach, which is to be considered as an emanation of the precautionary principle, lies in the fact that certain nations and regions particularly hit by global warming would additionally have to face a loss of sovereignty over their fresh water resources making it difficult – if not impossible – to disengage from international water transfers. Trade considerations could prevail over the sustainable management of local fresh water resources and/or delay urgent and necessary decisions. Also De Haan warns of over-exploitation of certain fresh water resources if bulk fresh water should be considered as being a tradable good subject to the

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132 See above, at 31.
133 See Edith Brown Weiss (2005), supra footnote 122, at 62.
134 See ibid.
135 See ibid, at 83–9. Such exclusion could be done in the form of an amendment to the GATT, a waiver, an interpretation or an ‘Ordinary Decision related to fresh water’, of which the matter may be ideal; see ibid, at 86–8.
136 See ibid, at 83.
139 See ibid, at 81–2.
GATT.\textsuperscript{140} Gowlland Gualtieri equally sees the uniqueness of water, a resource essential to all life, as "a strong argument for excluding water from the scope of the GATT",\textsuperscript{141} and warns of irreversible over-exploitation causing severe environmental damage such as ‘disruption of ecosystems, damage to natural habitats, harm to biodiversity, and disruption to aquifers and underground water systems’.\textsuperscript{142} National states should therefore remain in possession of full sovereignty over bulk fresh water resources.\textsuperscript{143} Fisher finally summarises the highly polemic nature of the debate that GATT rules on the one hand: ‘recognize the status of water as a commodity; level the playing field for trade in water resources’, and ‘protect against disguised barriers to trade’; but on the other hand: ‘constrain a state’s ability to protect ecological systems; make long-term management of water resources more difficult; give trade considerations a significant role in reconciling conflicting uses of water’, and ‘give trade dispute settlement mechanisms authority to resolve water claims’.\textsuperscript{144}

Brown Weiss furthermore argues that privately negotiated rights and obligations and principles taken from public international law should apply to bulk fresh water transfers, rather than international trade law.\textsuperscript{145} On the international level, the United Nations Convention on the Law of Non-Navigational Uses of International Watercourses (UN Watercourses Convention) offers a comprehensive set of rules applicable to international watercourses.\textsuperscript{146} The main provisions of the UN Watercourses

\textsuperscript{140} See Esther J. De Haan (1997), supra footnote 108, at 252.
\textsuperscript{141} See Alix Gowlland Gualtieri (2010), supra footnote 107, at 64.
\textsuperscript{142} See ibid, at 62, footnote 13.
\textsuperscript{143} See ibid, at 64.
\textsuperscript{145} See Edith Brown Weiss (2005), supra footnote 122, at 62.
Convention are: article 5, which proclaims the principle of ‘equitable and reasonable utilization and participation’ (through which the ‘optimal and sustainable utilization’ of international watercourses should be secured); article 6 lists the ‘[f]actors relevant to equitable and reasonable utilization’; and article 7 proclaims the ‘[o]bligation not to cause significant harm’ (the principle of ‘no harm’) to the other Parties of the Convention. The UN Watercourses Convention only entered into force recently, namely 17 August 2014. As of then, parties to the UN Watercourses Convention are legally bound to take into account the provisions of the Convention in concluding new agreements and interpreting already existing agreements. However, the conflict-resolving influence of the provisions of the UN Watercourses Convention was already cutting-edge before its entrance into force.

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147 See article 5 of the UN Watercourses Convention. In the Gabčíkovo-Nagymaros Project case, the International Court of Justice (ICJ) referred to the UN Watercourses Convention while invoking the ‘[r]ight to an equitable and reasonable share of the natural resources of the Danube’ in favour of Hungary; see ICJ, Case concerning Gabčíkovo-Nagymaros Project (Hungary/Slovakia), 25 September 1997. Most likely, the principle of equitable and reasonable use was referred to as an established principle of customary international law, since the UN Watercourse Convention was (and still has not) entered into force yet; see Stephen C. McCaffrey, ‘The Codification of Universal Norms: A Means to Promote Cooperation and Equity?’ in Laurence Boisson de Chazournes, Christina Leb and Mara Tignino (eds.), *International Law and Freshwater: The Multiple Challenges* (Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing, 2013), 125–39, at 137.

148 See article 6 of the UN Watercourses Convention.

149 See article 7 of the UN Watercourses Convention.


151 See Laurence Boisson de Chazournes (2013), *supra* footnote 114, at 27.

also adopted a Resolution specifically concerning the ‘Law of Trans-boundary Aquifers’. The United Nations Resolution on transboundary aquifers is, however, far less influential than is the case for the UN Watercourses Convention. Although many aquifers are shared bi-nationally (and regionally) only a few agreements exist in the field.

The most comprehensive set of rules can presently be found in the recently concluded agreement concerning the ‘sound management and protection of the shared Al-Sag/Al Disi aquifer’. Before the existence of the UN Watercourses Convention, the most comprehensive sets of rules concerning the management of shared fresh water resources were drafted by the International Law Association (ILA). The 1966 Helsinki Rules on the Uses of the Water of International Rivers includes provisions on both the navigational and non-navigational uses of international rivers, as well as provisions concerning both the settlement and prevention of conflicts. The paramount principles of ‘equitable utilisation’ and ‘no harm’ emerged out of the


provisions of the Helsinki Rules.\textsuperscript{164} Besides their influence on the conclusion of agreements, such as the Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC),\textsuperscript{165} the Helsinki rules also provided guidance in dispute settlement over shared water resources, such as the conflict between India, Pakistan and Bangladesh over the river Ganges.\textsuperscript{166} After having published a consolidation of the Helsinki Rules, the ‘Campione Consolidation of the ILA Rules on International Water Resources (2000)’, the ILA issued a revised version of the Helsinki rules in 2004: the ‘Berlin Rules on Water Resources’\textsuperscript{167} The ILA’s ‘Berlin Rules’ are not only more comprehensive than the Helsinki rules but are in fact also more comprehensive than the UN Watercourses Convention. For example, the Berlin Rules include rules applicable nationally.\textsuperscript{168} Also, the principle of reasonable utilisation of shared water resources is more firmly attached to the principle not to cause significant harm, which is considered to be a major difference from both the Helsinki Rules and the UN Watercourse Convention. However, both cited examples of changes with regard to the predecessor Helsinki Rules and the UN Watercourses Convention are criticised internally in the ILA Water Resources Committee (WRC).\textsuperscript{169}

\textsuperscript{164} See \textit{ibid}, at 630.


\textsuperscript{168} See Salman M.A. Salman (December 2007), \textit{supra} footnote 163, at 635 ff.

On the regional level, more specifically concerning the European continent, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (United Nations Economic Commission to Europe (UNECE) Water Convention) entered into force in 1996. A Protocol on Water and Health to the UNECE Water Convention was signed in 1999. Interestingly, amendments to the UNECE Water Convention entered into force recently, allowing non-UNECE countries to also become Member States, thus ‘turning the convention into a global legal water framework for transboundary water cooperation’. The seventh session of the meeting of the Parties to the UNECE Convention, which was held from 17 to 19 November 2015, was attended by 74 countries outside the UNECE region. The main
provisions of the UNECE Water Convention focus on the prevention, reduction, monitoring and control of pollution of transboundary waters, as well as on research and development.

Neither the UN Watercourses Convention, nor the UNECE Water Convention or the ILA’s Helsinki and Berlin Rules directly deal with (international) trade in bulk fresh water. Such trade normally occurs between the state (or a regional entity of the state) and the private sector and does not often involve transboundary shared waters. In this context it is, however, highly regrettable that the relationship between the WTO multilateral trade agreements and multilateral environmental agreements (MEAs), such as inter alia the UN Watercourses Convention and the UNECE Water Convention together with its Protocol on Water and Health, is still complicated and unsolved. Also the relationship between other (non-MEA) international environmental agreements such as the 1971 Ramsar Convention equally remains complicated and unsolved. It is broadly accepted that article 3.2 of the Dispute Settlement Understanding (DSU) allows for the application of articles 31 to 33 of the Vienna Convention on the Law of Treaties in the interpretation of multilateral (environmental) treaties when they are deemed to be relevant. WTO dispute settlement, however, has not answered the question whether, in the WTO context, the legal provisions of such multilateral treaties contain binding provisions or whether they should be considered

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175 Which international environmental agreements are to be considered as Multilateral Environmental Agreements (MEAs) is not completely clear. MEAs mostly are international environmental law agreements issued by the United Nations. There currently exist approximately 250 MEAs.


177 United Nations, *Vienna Convention on the Law of Treaties*, Vienna, 23 May 1969, available at http://www.worldtradelaw.net/misc/viennaconvention.pdf (last accessed on 31 August 2016). Especially article 31:3(c) of the Vienna Convention is relevant though controversial, stating that: ‘There shall be taken into account (c) any relevant rules of international law applicable in the relations between the parties.’

as merely informative.\textsuperscript{179} The question was also supposed to be addressed during the WTO Doha Round negotiations.\textsuperscript{180} However, since no formal consensus was reached, the discussion still continues until the present day.\textsuperscript{181}

In the 1996 \textit{US – Gasoline} case the Appellate Body stated that the GATT ‘is not to be read in clinical isolation from public international law’,\textsuperscript{182} which was interpreted in doctrine as a possible opening for taking into account non-trade concerns in WTO law.\textsuperscript{183} Two years later, in the 1998 \textit{US – Shrimp} case the Appellate Body sought guidance \textit{inter alia} in the United Nations Convention on the Law of the Sea (UNCLOS),\textsuperscript{184} the Convention on Biological Diversity (CBD)\textsuperscript{185} and the Convention on International Trade in Endangered Species of Wild Fauna


\textsuperscript{181} The question is treated in the WTO’s Committee on Trade and Environment (CTE); see WTO, \textit{The Doha Mandate on Multilateral Environmental Agreements (MEAs)}, at http://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm (last accessed on 31 August 2016).


and Flora (CITES),\textsuperscript{186} in order to determine whether ‘living natural resources’ (\textit{in casu} sea turtles) as opposed to ‘non-living natural resources’ could be found to be ‘exhaustible natural resources’.\textsuperscript{187} According to Panizzon, Arnold and Cottier, the rulings of the appellate body in the \textit{US – Shrimp} case could principally dismiss any law or regulation, taken at the national level in accordance with a MEA by a WTO Member who is also a Party to that MEA, from the article XX GATT’s ‘chapeau’ test.\textsuperscript{188} The paramount question whether only the parties in WTO dispute settlement cases should be members of the international treaty invoked, or whether all WTO Members should be a member to the international treaty invoked, in order to determine whether an international treaty would be applicable in a WTO dispute, was, however, left unanswered by the Appellate Body.\textsuperscript{189} In the 2006 \textit{EC – Biotech} case it was the defendant party, the European Communities, who invoked the precautionary principle as expressed in the Cartagena Protocol,\textsuperscript{190} in order to justify temporarily import prohibitions for biogenetically modified products.\textsuperscript{191} There, the Panel decided that, since the European Communities are a member party to the Cartagena Protocol but the defendant, the United States, is not, the Cartagena Protocol could merely ‘inform’ the WTO, but could not be applicable as such.\textsuperscript{192}

\begin{itemize}
\item \textsuperscript{188} See Marion Panizzon, Luca Arnold and Thomas Cottier (2010), \textit{supra} footnote 178, at 210 and 236–9. See also Part III, Chapter 5.II.C, at 211 ff.
\item \textsuperscript{189} See Marion Panizzon, Luca Arnold and Thomas Cottier (2010), \textit{supra} footnote, at 178, and 233.
\item \textsuperscript{192} See \textit{EC – Biotech (Panel)}, at paragraphs 7.67–7.75.
\end{itemize}
The ruling in the EC – Biotech case is criticised in doctrine. The question remains how to deal with MEAs which are not ratified by all WTO Members in dispute settlement. Inter alia, Pauwelyn advocates that, independently from the question of membership to an international treaty invoked in dispute settlement, all international treaties with erga omnes rights and obligations should be enforceable at the WTO level. The majority of WTO Members, however, among them also many developing countries, remain satisfied with the current situation. The problem is similar with regard to the applicability of provisions out of international human right treaties, including the recently emancipated
human right to water. Inter alia, the United States, Canada, China and Russia currently are not a party to the UN Watercourses Convention. \(^{199}\) Russia is a party to the UNECE Water Convention but not the United States, Canada or China. \(^{200}\) The United States still has not ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR), where the human right to food, encompassing the human right to water, \(^{201}\) is expressed in article XI. \(^{202}\)

### II THE GATT SCENARIO

If bulk fresh water would indeed be a tradable good subject to the GATT – at least in cases where it is not left in its natural state it can arguably be concluded that it is \(^{203}\) – then all main GATT provisions would be directly applicable. Applying article I GATT on Most-Favoured-Nation (MFN) treatment to bulk fresh water would have as a consequence that any ‘favour’ concerning imports or exports of bulk fresh water which is granted to any bulk fresh water exporting or importing WTO Member would also have to be granted to any other bulk fresh water exporting or importing WTO Member. \(^{204}\) Applying article III GATT on ‘National Treatment’ (NT) to bulk fresh water would have as a consequence that domestic and foreign bulk fresh water trading companies would have to

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\(^{198}\) See Part I, Chapter 2.III, at 71 ff.


\(^{201}\) See Part I, Chapter 2.III, at 71 ff.


\(^{203}\) See Melanie Berger (2013), supra footnote 17, at 28; Edith Brown Weiss (2005), supra footnote 122, at 67. See also Part I, Chapter 1, at 28 ff.

\(^{204}\) See Laurence Boisson de Chazournes (2013), supra footnote 114, at 88; Edith Brown Weiss (2005), supra footnote 122, at 72.
be taxed and regulated alike, without any discrimination.\textsuperscript{205} Crucial, however, would be article XI GATT on the ‘General Elimination of Quantitative Restrictions’,\textsuperscript{206} since it clearly prohibits any quantitative restrictions on the export of goods, and thus on bulk fresh water if this would be considered a good subject to the GATT.\textsuperscript{207} Article XI GATT concerning quantitative exports restrictions should thereby be read jointly with article XIII GATT concerning ‘Non-discriminatory Administration of Quantitative Restrictions’, of which the first paragraph, \textit{inter alia}, states that any quantitative export restriction on a product destined to another WTO Member should automatically apply to all like products.\textsuperscript{208} In defence, firstly, WTO Members concerned could invoke paragraph 2(a) of article XI GATT.\textsuperscript{209} In invoking this provision, WTO Members could aim temporarily\textsuperscript{210} to stop exports of bulk fresh water resources\textsuperscript{211} from their territory.\textsuperscript{212} However, this could only be done under an emergency situation, in case a country would be suffering from ‘critical shortages’.\textsuperscript{213} Cossy therefore considers the article XI(2)(a) exception to be rather limited.\textsuperscript{214} Additionally, however, while article XI GATT prohibits quantitative restrictions on export it explicitly allows for export duties.\textsuperscript{215} If export duties are high enough the effects can be similar to a

\textsuperscript{205} See Laurence Boisson de Chazournes (2013), \textit{supra} footnote 114, at 88.

\textsuperscript{206} See article XI paragraph 1 GATT.

\textsuperscript{207} See Laurence Boisson de Chazournes (2013), \textit{supra} footnote 114, at 88–9; Melanie Berger (2013), \textit{supra} footnote 17, at 40–1; Edith Brown Weiss (2005), \textit{supra} footnote 122 at 70–1; Alix Gowlland Gualtieri (2010), \textit{supra} footnote 107, 65–6; Mireille Cossy (2005), \textit{supra} footnote 113, at 181–8.

\textsuperscript{208} See article XIII paragraph 1 GATT.

\textsuperscript{209} See article XI paragraph 2(a) GATT.

\textsuperscript{210} See also below, at footnote 213.

\textsuperscript{211} Hughes and Marceau admit that: ‘[o]ne might argue that water resources could fall within the category of products “essential” to an exporting party, thus making them eligible for the exception’; see Valerie Hughes and Gabrielle Marceau (2013), \textit{supra} footnote 17, 266–97, at 271.

\textsuperscript{212} See, \textit{inter alia}, Mireille Cossy (2005), \textit{supra} footnote 113, at 181–8.


\textsuperscript{214} See Mireille Cossy (2005), \textit{supra} footnote 113, at 185.

\textsuperscript{215} The use of export duties on certain natural resources can, however, be restricted in the framework of ‘WTO-plus’ obligations negotiated with new WTO Members (as well as in GATT schedules of commitments); see Julia Y. Qin, ‘Reforming WTO Discipline on Export Duties: Sovereignty over Natural Resources, Economic Development and Environmental Protection’, 2012 Journal
quantitative export restriction.\textsuperscript{216} Export duties on bulk fresh water could thus be an effective mechanism in regulating potential over-exploitation. Moreover, the Marrakesh Agreement establishing the WTO also officially promotes the concept of ‘sustainable development’\textsuperscript{217} in its preamble.\textsuperscript{218} According to Qin, export duties can be used as a ‘policy tool’ in addressing a country’s environmental concerns in relation to its economic development.\textsuperscript{219} The possibility to impose export duties in the context of the protection of the environment can thereby be seen as an emanation of the principle of ‘permanent sovereignty over natural resources’.\textsuperscript{220}

\textsuperscript{216} See, \textit{inter alia}, Mireille Cossy (2005), supra footnote 113, at 183–4. Also in this sense Edith Brown Weiss (2005), supra footnote 122, at 85. As an alternative, Brown Weiss advocates the possibility to cap bulk fresh water extractions, which would, in analogy with oil extractions capped by OPEC, not be breaching GATT obligations; see \textit{ibid}, at 85.


\textsuperscript{218} See the preamble of the Marrakesh Agreement Establishing the World Trade Agreement, available at https://www.wto.org/english/docs_e/legal_e/legal_e.htm (last accessed 31 August 2016).

\textsuperscript{219} See Julia Y. Qin (2012), supra footnote 215, at 1172–3.

\textsuperscript{220} See \textit{ibid}, at 1173.
The principle of permanent sovereignty over natural resources emerged in the framework of the United Nations221 in the context of progressing de-colonisation,222 and is also expressed as a human right in article 1.2 of the International Covenant on Civil and Political Rights (ICCPR) and article 1.2 ICESCR.223 The principle also plays a role in the conservation of biodiversity.224 The principle of permanent sovereignty over natural resources, however, also serves the function of concreting inequalities, since natural resources, such as fresh water, are unequally divided among nations.225 As such it can also hinder the realisation of fundamental human rights such as the right to food and the right to water.226 In the China – Raw Materials case, the Panel rebutted the Chinese assumption


222 According to Schrijver, ‘[t]he principle of permanent sovereignty over natural resources has its roots in two main concerns of the United Nations: (i) the economic development of developing countries; and (ii) the self-determination of colonial peoples’; see Nico Schrijver, Sovereignty over Natural Resources: Balancing Rights and Duties, Cambridge Studies in International and Comparative Law (Cambridge: Cambridge University Press, 1997), at 369.

223 ‘All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence’; see United Nations, International Covenant on Civil and Political Rights, Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966, entry into force 23 March 1876, in accordance with Article 49, at article 1.2 (hereafter referred to as ICCPR), and United Nations, International Covenant on Economic, Social and Cultural Rights, Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966, entry into force 3 January 1976, in accordance with article 27, at article 1.2 (hereafter referred to as ICESCR).


226 See also Part I, Chapter 2.III, at 71 ff.
that the article XX(g) exception relating to the conservation of exhaustible resources should be interpreted as quasi-automatically accepting permanent sovereignty over natural resources.\textsuperscript{227} The principle of permanent sovereignty over natural resources can indeed be limited through the operation of international regional and bi-national agreements that nations conclude.\textsuperscript{228} Schrijver eloquently summarises that:

The challenge of the next two or three decades will be how to balance permanent sovereignty over natural resources with other basic principles and emerging norms of international law – including the duty to observe international agreements, grant fair treatment to foreign investors, pursue sustainable development at national and international levels and to respect human and peoples’ rights – and in this way to serve best the interests of present and future generations.\textsuperscript{229}

In the recent China – Rare Earths case,\textsuperscript{230} Chinese export duties on its rare earths\textsuperscript{231} (and its Tungsten and Molybdenum resources), were challenged in a similar case as the China – Raw Materials case cited above.\textsuperscript{232} The Panel specified that China disposes over full sovereignty over its decision as to how much of its rare earths are allowed to be

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\textsuperscript{228} In this sense e.g. Julia Y. Qin (2012), \textit{supra} footnote 215, at 1166.


\textsuperscript{230} WTO, Reports of the Panel, China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum, WT/DS431, WT/DS432/R, WT/DS433/R, 26 March 2014 (hereafter referred to as China – Rare Earths (Panel)).

\textsuperscript{231} The notion of ‘rare earths’ in casu refers to ‘the common name for a group of 15 chemical elements in the periodic table with atomic numbers 57 to 71. These elements are part of the so-called “lanthanide group”, composed of: lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium. Two other rare earth elements are included in the scope of this dispute, namely, scandium (atomic No. 21) and yttrium (atomic No. 39.’); see China – Rare Earths (Panel), at paragraph 2.3.

\textsuperscript{232} See above, at footnotes 213 (AB report) and 227 (Panel report). See also Thomas Cottier, Tobias Naef, Tetyana Payosova, Rodrigo Polanco, Victor Saco and Charlotte Sieber-Gasser, ‘The Jurisprudence of the World Trade Organization
extracted on its territory, but once rare earths are extracted WTO rules become fully applicable.233

In defence, secondly, the article XX GATT exceptions, more specifically the paragraphs (b) and (g) exceptions, could also be invoked.234 Article XX(b) GATT relates to the necessity of protecting ‘human, animal, or plant life or health’, and article XX(g) GATT relates to the ‘conservation of exhaustible resources’. Both exceptions require a two-step investigation.235 Firstly, it is to be assessed whether the requirements of the respective exception invoked are met. Secondly, an assessment under the chapeau of article XX is required, which generally constitutes the most difficult part.236 Under the article XX(b) exception, the trade-restrictive measure relating to the protection of ‘human, animal or plant life or health’ is subject to a ‘necessary test’, which is applied on a case-by-case basis.237 The more the protective measure at issue is vital to common interests, the bigger the chances are to pass this first hurdle of article XX(b).238 The article XX(b) exception is normally invoked with regard to import restrictions.239 Boisson de Chazournes, however, sees no reason why article XX(b) should not be applicable to import and export...
restrictions alike, including export restrictions on bulk fresh water.\textsuperscript{240} Gowlland Gualtieri explicitly argues that export restrictions on bulk fresh water in order to protect ecosystems or to alleviate water shortages for private consumption and for agriculture could potentially be justified under this provision.\textsuperscript{241}

Under the article XX(g) exception, it has first to be assessed whether water is an ‘exhaustible natural resource’. In the \textit{US – Gasoline} case it was already concluded that ‘clean air’ falls under this category.\textsuperscript{242} But \textit{inter alia} oil, natural gas, tuna, dolphins, salmon, and sea turtles also have already been found to be an exhaustible natural resource in the sense of article XX(g) GATT. In the \textit{Shrimp – Turtle} case, the Appellate body stated that: ‘[f]rom the perspective embodied in the preamble of the WTO Agreement, we note that the generic term “natural resources” in Article XX(g) is not “static” in its content or reference but is rather “by definition, evolutionary”’.\textsuperscript{243} Although the amount of water on the planet remains constant in a closed hydrological cycle, it could be argued that fresh water is finite at certain localities such as an aquifer, a lake (e.g. the Aral Sea,\textsuperscript{244} even the North American Great Lakes\textsuperscript{245}), or a river if there is more water withdrawn than there is influx.\textsuperscript{246} It thus seems not to be

\begin{footnotesize}
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  \item See Laurence Boisson de Chazournes (2013), \textit{supra} footnote 114, at 89. See also Baris Karapinar (2011), \textit{supra} footnote 215.
  \item See Alix Gowlland Gualtieri (2010), \textit{supra} footnote 107, at 69. See also \textit{ibid}, footnote 38 at 70.
  \item See also below, at 52–3 and 90.
  \item In this sense see Alix Gowlland Gualtieri (2010), \textit{supra} footnote 107, at 70; International Joint Commission (22 February 2002), \textit{supra} footnote 105, at 42.
\end{itemize}
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impossible, and as a matter of fact is even quite likely, that bulk fresh water could also be recognized as an exhaustible natural resource under the GATT, depending on whether the specific locality suffers from drought and/or depletion of fresh water resources.\textsuperscript{247} Secondly, under the article XX(g) exception, it has to be assessed whether the WTO Member concerned also applies ‘even-handed’ measures with regard to the conservation of the bulk fresh water resources under its own jurisdiction.\textsuperscript{248} \textit{A priori}, the requirements of both exception (b) and (g) of article XX GATT seem not to be insurmountable to fulfil in the case of bulk fresh water.\textsuperscript{249} Whether the second hurdle of article XX – the chapeau assessment – would also be passed is, however, less likely. The defence offered by article XX(b) and (g) GATT, in combination with the ‘good faith’ prescription of article XX’s chapeau, still is not easy to master, as can be concluded from the GATT and WTO dispute settlement case law so far.\textsuperscript{250} Girouard, however, concludes that a unilateral export restriction on bulk fresh water could also pass the article XX chapeau test under certain conditions, \textit{inter alia}: ‘if [the export restriction] applies solely to domestic water resources’; ‘if the exporter first makes “serious, good faith” efforts to negotiate a solution with its trade partners before applying the measure’ (but without necessarily having to reach an agreement);\textsuperscript{251} or ‘if it is consistent with the terms of a multilateral environmental agreement’.\textsuperscript{252}

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\textsuperscript{247} In this sense see Edith Brown Weiss (2005), supra footnote 122, at 73.  
\textsuperscript{248} See Alix Gowlland Gualtieri (2010), supra footnote 107, at 70; Robert J. Girouard (2003), supra footnote 114, at 255. See also Part III, Chapter 5.II, at 206 ff.  
\textsuperscript{249} See Robert J. Girouard (2003), supra footnote 114, at 255 and 263.  
\textsuperscript{250} See Part III, Chapter 5.II, at 206 ff.  
\textsuperscript{251} See also Part III, Chapter 5.II.C, at 211 ff.  
\textsuperscript{252} See Robert J. Girouard, (2003), supra footnote 114, at 263.