"*Tuna – Dolphin* Forever"? The Development of the PPM Debate Related to Trade and Environment in the WTO

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Abstract *The Tuna-Dolphin disputes between the United States and Mexico have spanned almost three decades. They have shed light on the "PPM debate", i.e. whether trade restrictions based on differences in process and production methods (PPMs) are justifiable under international trade rules. While a very strict approach against the use of PPM measures prevailed at the end of the GATT era, it has significantly evolved during the first two decades of the WTO. The Dispute Settlement Body eventually upheld a PPM "dolphin-safe" measure at the end of a particularly long judicial saga. The different Tuna-Dolphin reports show how environmental interests have gradually been integrated in WTO law and have influenced the interpretation of some of the core provisions of the GATT and the TBT Agreement (non-discrimination obligations, general exceptions). These remarkable evolutions may be viewed as reflections of the objective of sustainable development mentioned in the WTO Agreement and as consequences of the judicialization of the multilateral trading system, which has allowed more legally sophisticated analyses based on the rule of law. They also illustrate efforts to foster the external legitimacy of the WTO, through greater sensitivity towards non-trade values. At the same time, the Tuna-Dolphin case law has become particularly complex, focusing on very fine technical details specific to the dispute, which has led to the risk of "never-ending story". In this context, the search for legal security, coherence and efficient settlement of disputes may be the next challenge for WTO adjudicating bodies. At the same*

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time, the use of PPM measures remains delicate and requires the assessment and balance of a variety of interests, including the specific interests of developing countries.

I. Introduction

The *Tuna-Dolphin* disputes between the United States and Mexico have spanned almost three decades since they first surfaced in 1991. These disputes concerned US regulations restricting the imports of tuna caught using methods that resulted in the incidental killings of dolphins. They raised the issue of the justifiability under the world trading system of measures which apply different treatment to products based on differences in their process and production methods (PPMs). The "PPM debate", and whether process-based measures should be allowed under international trade law, was particularly intense when the *Tuna-Dolphin* dispute started. Between 1991 and 2018, eight reports have been rendered, first by GATT Panels and later by the WTO adjudicating bodies. This "never-ending story" bears witness to certain major evolutions in the way the multilateral trading system has developed and how it interacts with non-trade issues, in particular environmental protection.[1]

[1] It should be noted that in parallel such discussion took place at the regional level, most importantly in what today is the European Union, *see* e.g. Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (OUP 1996) and Rolf Weder and Andreas R. Ziegler, 'Economic Integration and the Choice of National Environmental Policies' (2002) 13 EJLE 239.

In brief, the PPM controversy has crystallised tensions which may exist between different and potentially conflicting interests, such as, on the one hand, the reduction of barriers to trade – including for the products produced by developing countries – and, on the other hand, environmental protection (or other non-trade values). While prohibiting PPM measures could represent a major obstacle to international environmental protection efforts,[2] allowing unrestrained process-based import restrictions could conversely lead to a significant increase in barriers to international trade and could thereby interfere with the objectives of the world trading system. The use of PPM measures may also have an important impact on the interests of developing countries and their possibility to access the largest markets of the North. These countries have thus often opposed the use of unilateral PPM measures and have argued that such measures interfere with their sovereignty and priorities.[3]

The PPM debate has a myriad of different features, all of which cannot be analysed here. The authors focus instead on how the *Tuna-Dolphin* reports show in a concrete manner the evolution of WTO law on certain specific issues of the trade and environment debate.

After a description of the main steps that have marked the *Tuna-Dolphin* disputes (II.), this article comments the main aspects of the *US – Tuna* reports and their impact on the PPM debate at the end of the GATT era (III.) and under the WTO (IV.), before some comments and concluding remarks about the evolution of the PPM issue in WTO law and its impact on the debate on trade and environment (V.).

II. THE *TUNA-DOLPHIN* SAGA IN BRIEF

A. The origin: the 1972 MMPA

In the Eastern Tropical Pacific Ocean (ETP), dolphins and tuna are known to school together: tuna often swim below herds of dolphins that are visible swimming at or near the surface.[4] In the 1960s, the fishing industry has begun to exploit this association. The method of "setting on dolphins" consists in using dolphins to locate schools of tuna and then encircle dolphins

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[2] For further analysis, *see* eg David Sifonios, *Environmental Process and Production Methods (PPMs) in WTO Law* (Springer International Publishing 2018) 27.

[3] Such opposition led eg to the complaint brought by India, Pakistan, Malaysia and Thailand against the United States in the *US – Shrimp* case. *See United States* v *India and Others – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/R (US – Shrimp Case). *See* Sifonios, *Environmental Process and Production Methods* (n 2).

[4] *See* GATT Panel Report, *United States – Restrictions on Imports of Tuna*, DS29/R, 16 June 1994, unadopted, (*US –Tuna II*), para 2.2.

intentionally with purse seine nets in order to catch tuna swimming beneath them. Many dolphins are usually caught in the process, with a high mortality rate. As populations of dolphins in the ETP decreased below sustainable levels, the US enacted in 1972 the Marine Mammal Protection Act (MMPA), in an effort to reduce the incidental capture of dolphins during tuna fishing operations. In the 1980s, the US amended the MMPA to include ban on fish or fish products imported from countries that did not have mammal protection programmes equivalent to the US programme.[5]

B. The two original *US – Tuna* GATT 1947 Panel reports (1990-1994)

In 1990, the US decided to prohibit the imports of tuna from several countries, including Mexico, which continued to allow the method of catching tuna by setting on dolphins with purse seine nets in the ETP. The US also enacted dolphin-safe labelling requirements, under the Dolphin Protection Consumer Information Act (DPCIA), which excluded in principle from the dolphin-safe label tuna caught by setting on dolphins with purse seine nets. In the ETP, in order to be eligible for the dolphin-safe label, captains of large purse seine vessels and independent observers were required to certify that no dolphins had been set on deliberately with purse seine nets and that no dolphins had been killed or seriously injured when tuna was caught.[6] In theory, the same requirements applied in areas identified as presenting the same association between tuna and dolphins. However, no other areas than the ETP had been classified as exhibiting this association and their related injury and mortality risks to dolphins.[7]

Mexico challenged the US measure under the GATT 1947. The *US – Tuna I* GATT Panel basically concluded, on the basis of a legal analysis that has been much criticised, that this measure could not be justified under the GATT. It held that the US measure was a quantitative restriction inconsistent with Article XI (and not an internal measure subject to Article III) and that it could not be justified under the general exceptions of Article XX. This report applied what has been referred to as the "product-process distinction", which basically implies that trade measures based on differences in the PPMs of the imported products are not justifiable under the GATT.[8] This result caused

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[5] For a detailed analysis of the evolution of the US dolphin-safe policy, *see* eg Trish Kelly, 'Tuna-Dolphin Revisited' (2014) 48(3) JWT 501; Rodrigo Fagundes Cezar, 'The Politics of "Dolphin-Safe" Tuna in the United States: Policy Change and Reversal, Lock-in and Adjustment to International Constraints (1984-2017)' (2017) 17(4) WTR 635.

[8] *See* eg Robert E. Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' in Marco Bronckers and Reinhard Quick (eds), *New Directions in International Economic Law: Essays in Honour of John H. Jackson* (KLI 2000); Robert Howse and Donald Regan,

strong negative reactions from environmental groups, which feared that this report, and the GATT more generally, could threaten the ability of states to take trade measures for environmental purposes and prevent governmental action to address global environmental issues.[9]

In 1992, the European Economic Community (now the EU) challenged another aspect of the US measure, the secondary embargo imposed by the United States on any intermediary country that exported tuna to the US. Such countries could not import tuna from Mexico if they wanted to export their tuna to the US market. Like the first Panel, the *US – Tuna II* GATT Panel considered that the US measure was not an internal measure covered by Article III, but that it constituted a quantitative restriction violating Article XI and that it was not justified under Article XX.

These two reports were never adopted. The GATT 1947 system required a positive consensus for the adoption of a report and the US never agreed to it.[10] Despite having won the case, under the GATT 1947 system Mexico and the EEC were unable to enforce these reports.

C. The evolution of international dolphin protection rules at the end of the 1990s

In the meantime, international efforts to control dolphin mortality in the ETP were made in the context of the Inter-American Tropical Tuna Commission (IATTC). At the end of the 1990s, these efforts to adopt international rules to protect dolphins resulted in the conclusion of the Agreement on International Dolphin Conservation Program (AIDCP), which entered into force in 1999 and to which both Mexico and the US became parties. This agreement contained dolphin mortality limits and provided for monitoring and certification systems that included independent on-board observers. It also encouraged dolphin-safe improvements in purse seine nets, without, however, prohibiting their use. Under the AIDCP, the dolphin-safe label was available for tuna that was caught without killing or injuring dolphins,

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'The Product/Process Distinction – An Illusory Basis for Disciplining "Unilateralism" in Trade Policy' (2000) 11(2) EJIL 249. For further details, *see* Sifonios, *Environmental Process and Production Methods* (n 2) 101 ff.

[9] *See* eg Daniel Esty, *Greening the GATT: Trade, Environment and the Future* (Institute for International Economics 1994) 35 ff; Andrew L. Strauss, 'From GATTzilla to the Green Giant: Winning the Environmental Battle for the Soul of the World Trade Organization'(1998) 19 U Pa J Int'l Econ L 769, 771. *See* also *infra*, III.

[10] *See* eg William J. Davey, 'Dispute Settlement in GATT' (1987) 11(1) Fordham Int'l LJ 52, 85 ff; David Luff, *Le droit de l'organisation mondiale du commerce*: *analyse critique* (Bruylant/LGDJ, Bruxelles/Paris 2004) 772.

regardless of the fishing method used. In other words, the method of setting on dolphins was not banned as such.

At the US domestic level, due also to the important success of the measures enacted to reduce dolphin mortality in the ETP, Congress enacted legislation which aimed at substituting the US import ban by the AIDCP dolphin-safe requirements, provided that studies confirmed that there were no significant adverse impacts on depleted dolphin stocks. The studies concluded that there was insufficient evidence of such adverse impact. As a result, the US dolphin-safe scheme was modified, so as to allow tuna to be caught using purse seine nets, provided that no dolphins were killed or seriously injured.[11] This outcome was favourable to Mexico, which continued to use purse seine nets for catching tuna.

D. The *Hogarth* case (2007)

However, a new judicial episode ensued, this time essentially at the US domestic level. Different NGOs successfully contested the change in the US dolphin-safe scheme before the US Federal Appeals Court, in the *Hogarth* case.[12] As a consequence, the original US dolphin-safe programme reverted to its original form:[13] in the reinstated ETP, tuna was eligible for the dolphin-safe label only if captains and observers would certify that tuna had not been caught by setting on dolphins nor in sets in which dolphins had been killed or seriously injured.[14] In other words, the method of setting on dolphins had been once again excluded, which was precisely the condition against which Mexico had been fighting since the beginning of the 1990s.

E. The *US – Tuna II (Mexico)* reports (2008-2012)

In 2008, Mexico therefore again challenged the US dolphin-safe scheme, this time before the WTO Dispute Settlement Body and under the rules of different WTO agreements. The different challenged measures were the DPCIA itself, the Code of Federal Regulations (Sections 216.91 and 216.92) and the ruling by the US Federal Appeals Court in the *Hogarth* case.

The established Panel examined the contested measures under the TBT Agreement. It held that the measure at issue established mandatory labelling requirements and thus constituted "technical regulations" under the

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11 *See* eg Kelly (n 5) 504-506.
12 *Earth Island Institute* v *Hogarth* 494 F 3d 757 (US 9th Circuit 2007).
13 *See* eg Kelly (n 5) 506-508.
14 *See* eg *Ibid* 508.

TBT Agreement.[15] In short, the Panel concluded that the US measure did not afford less favourable treatment to Mexican tuna products (TBT Art. 2.1) but that they were more trade-restrictive than necessary to fulfil legitimate objectives (TBT Art. 2.2).[16] At the same time, the Panel upheld the use by the US of its own standard, considering that Mexico had not demonstrated that the AIDCP dolphin-safe standard was an effective and appropriate means to fulfil the US objective at its chosen level of protection (TBT Art. 2.4).[17]

Mexico appealed the Panel report before the Appellate Body. In its 2012 report, the Appellate Body reversed the Panel findings about Articles 2.1 and 2.2 of the TBT Agreement, considering that the US measure granted "less favourable treatment" to Mexican tuna but not that the measure at issue was more trade restrictive than necessary to fulfil the US legitimate objectives.

One of the important aspects that led to the conclusion that the US measure resulted in "less favourable treatment" was the fact that the fishing method of setting on dolphins was prohibited everywhere in the world but was used almost only in the ETP (and was the method predominantly used by the Mexican fishing industry). Outside the ETP, purse seine nets vessels only had to provide a certification by the captain that no purse seine nets were intentionally deployed on or used to encircle dolphins during the fishing trip. There was however no particular requirements concerning possible dolphins casualty caused by the use of *other* fishing methods, which means that tuna caught outside the ETP could be eligible for the dolphin-safe label *even if* dolphins had been caught or killed during the trip.[18]

Therefore, the DSB recommended that the US bring its measure into conformity with its obligations. Even though the US measure had not been entirely upheld and it had been considered to result in less favourable treatment of Mexican tuna, the result of the Appellate Body Report was not necessarily in favour of Mexico. The main flaw of the US scheme was that it applied more stringent conditions inside the ETP than in other areas of the ocean. In other words, the US could comply with the DSB recommendations and rulings by enacting stricter conditions for tuna caught outside the ETP, without weakening the conditions applicable inside the ETP,[19] against which

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[15] *See* Panel Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, adopted 13 June 2012 [*US – Tuna II (Mexico)*], para. 7.50 ff.

[16] *See US – Tuna II (Mexico)*, Panel Report (n 15), para. 7.374 and 7.620.

[17] *See US – Tuna II (Mexico)*, Panel Report (n 15), para.7. 624 ff.

[18] *See* Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, adopted 13 June 2012 (*US – Tuna (Mexico) II*), para 289.

[19] *See* eg Kelly (n 5) 523.

Mexico had been fighting. As such, and even though the US measure had not been upheld, the *US – Tuna II (Mexico)* reports already represented a major evolution in the PPM debate compared to the two initial *US – Tuna* GATT 1947 Panel reports, as it will be further commented below.

F. The *US – Tuna II (Mexico) 21.5* reports (2013-2015)

In order to comply with the DSB recommendations and rulings pursuant to Article 21.5 of the Dispute Settlement Understanding and to modify its dolphin-safe scheme, the US adopted the so-called "2013 Final Rule".[20] It brought various changes to the Code of Federal Regulations, concerning conditions relating to fishing methods, certification and record-keeping (tracking and verification).[21] However, it did not change the requirements for access to the dolphin-safe label that applied specifically to tuna products derived from tuna harvested in the ETP by large purse seine vessels.[22]

The main changes consisted in strengthening the conditions applicable to tuna caught *outside the ETP*. The prohibition of harvesting tuna by setting on dolphins, anywhere in the world, remained.[23] However, vessels using other methods, both inside *and outside* the ETP, could be eligible for the dolphin-safe label, provided that no purse seine nets had been used, but also that no dolphins were killed or seriously injured during the sets in which the tuna were caught, which was a new requirement introduced by the amended measure.[24] The verification that these conditions were met required certain certifications by the captain of a vessel and in some cases by an independent observer. Inside the ETP, large purse seine net vessels required certification provided by the captain of the vessel *and* an approved observer. By contrast, outside the ETP, such vessels required, in principle, certification by the captain of the vessel only (with some limited exceptions).[25] The revised measure also applied segregation requirements between dolphin-safe tuna and other tuna to all fisheries, whereas in the original measure it was a condition applicable only to large purse seine vessels fishing in the ETP.[26]

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[20] Document entitled "Enhanced Document Requirements to Support Use of the Dolphin Safe Label on Tuna Products", *see US – Tuna II (Mexico)*, Panel Report (n 15), para 1.10.

[21] *See US – Tuna II (Mexico)*, Panel Report (n 15), para 3.32 ff.

[22] *See* Appellate Body Report *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by Mexico*, WT/DS381/AB/RW, adopted 3 December 2015 [*US – Tuna II (Mexico) 21.5*], para 6.16.

[23] *See US – Tuna II (Mexico)*, Panel Report (n 15), para 3.36.

[24] *See* Panel Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by Mexico*, WT/DS381/RW, adopted 3 December 2015 [*US – Tuna II (Mexico) 21.5*], para 3.36, 3.40.

[25] *See US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 22), para 6.11.

[26] *See Ibid*, para 6.33.

Mexico again challenged the implementation measures of the "2013 Final Rule" under Article 21.5 of the DSU, claiming that the amended US measure continued to accord Mexican tuna products treatment less favourable than that accorded to like tuna products originating from other countries.

This time the Panel found that the eligibility criteria of the amended measure did not result in less favourable treatment to Mexican tuna than that accorded to like tuna products.[27] However, it concluded that even though the revised certification requirements and the different revised tracking and verification requirements had been improved for tuna caught outside the ETP, they still resulted in less favourable treatment of Mexican tuna.[28] In the subsequent appeal, the Appellate Body, in a very technical report, again did not uphold all the Panel findings and considered that it could not complete the analysis due to a lack of a proper assessment of the respective risks associated with different methods of fishing tuna in different areas of the ocean. However, it concluded that the certification requirements had not been reinforced in the amended measure in all circumstances of risks that were comparably as high as those inside the ETP large purse seine fishery. Thus, the Appellate Body concluded that the amended US measure still resulted in less favourable treatment of Mexican tuna compared to like tuna products.[29]

G. The *US – Tuna II (Mexico) 21.5 II* Reports (2016-2018)

As a result of the first compliance proceedings, the US amended its measure again, which gave rise to a third series of dispute settlement reports at the WTO. The "2016 Tuna Measure" made no changes to the eligibility criteria, which meant *inter alia* that tuna harvested by setting on dolphins (anywhere in the world) was automatically ineligible for the dolphin-safe label.[30] All other tuna products might be labelled dolphin-safe only if no dolphins were killed or seriously injured in the set in which tuna was caught.[31] To verify that these conditions had been satisfied, the 2016 Tuna Measure introduced some additional certification requirements for all fisheries other than the ETP large purse seine fishery, in particular further instances in which an

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[27] *See US – Tuna II (Mexico) 21.5*, Panel Report (n 24), para. 7.135.
[28] *See Ibid*, para. 7.263.
[29] *See US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 22), para 7.266.
[30] *See* Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by the United States, United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by the Mexico*, WT/DS381/AB//RW/USA; WT/DS381/AB/RW2, 14 December 2018 [*US – Tuna II (Mexico) 21.5 II*], para 5.11.
[31] *Ibid*, para 5.11.

independent observer was mandatory.[32] Likewise, without changing the tracking and verification requirements applicable to the ETP large purse seine net fishery, the US introduced certain additional requirements under the regime applicable to all other fisheries.[33]

This time the Panel concluded that the 2016 Tuna Measure was "calibrated" to the risks to dolphins arising from the use of different fishing methods in different areas of the ocean. As a result, it accepted that the regulatory distinctions made (in particular between setting on dolphins and the other fishing methods) stemmed exclusively from a legitimate regulatory distinction. Hence, the Panel held that the 2016 Tuna Measure accorded to Mexican tuna products treatment no less favourable than that accorded to like tuna products and was therefore consistent with Article 2.1 of the TBT Agreement. At the same time, the Panel also concluded that the 2016 Tuna Measure was inconsistent with Articles I:1 and III:4 of the GATT but that it was justified under Article XX. The Appellate Body upheld the Panel's conclusions in December 2018, finally bringing this dispute to an end.

III. The GATT Era: The Exclusion of PPM Measures

As we have already mentioned, the trade measures at issue in the *US – Tuna* cases constituted PPMs, i.e. measures which specify the way a particular product is or should be made, processed or harvested. Such PPM measures were very controversial at the beginning of the *Tuna-Dolphin* saga. Different arguments were invoked at that time to defend a general prohibition of PPM measures.

First, it has been maintained that PPM measures conflict with the sovereignty of the exporting country.[34] It has in particular been argued that environmental PPM measures are "extraterritorial", because they interfere with the sovereignty of the producing country to regulate the activities of its nationals or the activities occurring in its own territory.[35] It has also been

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[32] *Ibid*, para 5.13 ff.

[33] *Ibid*, para 5.22.

[34] For more details, *see* eg Sifonios, *Environmental Process and Production Methods*(n 2) 9 ff, 67 ff.

[35] *See* Kyle Bagwell and others, 'It's a Question of Market Access' (2002) 96(1) AJIL 56, 76; Henrik Horn and Petros C. Mavroidis, 'The Permissible Reach of National Environmental Policies' (2008) 42(6) JWT 1107, 1125; Bernard Jansen and Maurits Lugard, 'Some Considerations on Trade Barriers Erected for Non-Economic Reasons and WTO Obligations' (1999) 2(3) JIEL 530, 533; Thomas J. Schoenbaum, 'International Trade and Protection of the Environment: The Continuing Search for Reconciliation' (1997) 91(2) AJIL 268, 279 ff. *See* also John Jackson, 'World Trade Rules and Environmental

contended that PPM measures represent a form of interference in internal affairs, which allegedly violates the international law principle of non-intervention.[36] In the same vein, some observers have claimed that PPM measures can amount to a means of eco-imperialism, if trade restrictions are used to impose values on other countries.[37]

Second, there was a fear among trade circles that import restrictions based on the production methods of imported products could significantly increase barriers to trade and thereby "threaten" the multilateral trading system as such[38] and its underlying trade liberalization objectives. In this view, allowing the regulation of PPMs by the importing country would be like opening a "Pandora's box" and would represent a "slippery slope", by which trade rules would allow regulations that represent significant non-tariff barriers to trade[39] and that may be a form of "green protectionism",[40] because protectionist objectives could easily be disguised behind environmental pretexts.[41]

The initial *US – Tuna* GATT Panel reports illustrated the support for such arguments, and presented a straight-forward preference for trade interests over environmental protection. For instance, the *US – Tuna I* Panel held that if PPM-based restrictions were allowed, the GATT could "no longer serve as a multilateral framework for trade among contracting parties"[42] and would "provide legal security only in respect of trade between a limited number of

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Policies: Congruence or Conflict?' (1992) 49 Washington & Lee L Rev 1227, 1244; *US – Tuna II*, para 5.17. For a detailed analysis of the issue of extraterritoriality, *see* Sifonios, *Environmental Process and Production Methods* (n 2) ch 5.

[36] *See* James Thuo Gathii, 'Neoliberalism, Colonialism and International Governance: Decentering the International Law of Governmental Legitimacy' (2000) 98(6) Mich L Rev 1996, 2029 ff. *See* also the arguments of the complainants in the *US – Shrimp* case: Panel Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/R, adopted 15 May 1998, paras 3.6, 3.41, 3.104 and particularly 3.157.

[37] *See* eg Jagdish Bhagwati, 'Trade and the Environment: The False Conflict?' in Durwood Zaelke and others (eds), *Trade and the Environment: Law, Economics, and Policy* (Island Press 1993) vol 1, 174; Jagdish Bhagwati, *In Defense of Globalization* (OUP 2004) 155. In this view, such measures could be seen as an indication that values of economically strong nations are morally superior to those of economically poor ones.

[38] *See US – Tuna I*, Panel Report (n 7), para 5.28; *US – Tuna II*, Panel Report (n 4), para 5.26; *US – Shrimp*, Panel Report (n 3), para 7.45; GATT Secretariat, 'Trade and the Environment', in *International Trade 1990-1991*, vol 1, Geneva (1992).

[39] *See* Bhagwati, *In Defense of Globalization* (n 37) 154 ff; GATT Secretariat (n 38); Jackson, 'World Trade Rules and Environmental Policies: Congruence or Conflict?' (n 35) 1241 ff.

[40] *See* Aaron Cosbey, 'The Trade, Investment and Environment Interface', in Shahrukh Rafi Khan (ed), *Trade and Environment: Difficult Choices at the Interface* (Zed Books 2002) 7, 13 f; Ernst-Ulrich Petersmann, *International and European Trade and Environmental Law after the Uruguay Round* (Kluwer Law International 1996) 50 *et passim*.

[41] *See* Jackson, 'World Trade Rules and Environmental Policies: Congruence or Conflict?' (n 35) 1235.

[42] *See US – Tuna I*, Panel Report (n 7), para 5.26.

contracting parties with identical regulations",[43] which was obviously a significant overstatement.[44] With little more legal argument, the justifiability of PPM measures under the GATT was thus excluded per se by the two initial *US – Tuna* reports.

As mentioned, these reports were never adopted by the GATT Contracting Parties. Unadopted reports have no legally binding status as such in the GATT or WTO system.[45] Hence, the *US – Tuna* GATT Reports do not formally have any legal significance[46] (even though a panel can find "useful guidance" in the reasoning of a relevant unadopted panel report[47]). In practice however, despite this fact, the *US – Tuna* GATT Panel reports have had a significant influence in trade circles, in particular at the end of the 1990s and in the beginning of the 2000s. Many commentators have referred to the product-process distinction applied by the two GATT panels in the early years following these reports, sometimes even considering that it was "settled case law".[48] Hence, it has been often assumed following these reports that PPM measures were prohibited under the GATT.[49]

However, the *US – Tuna* GATT Panel reports have also given rise to intense criticism.[50] Their exclusion of PPM-based trade measures was viewed

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[43] *See US – Tuna I*, Panel Report (n 7), para 5.27.

[44] Indeed, WTO Members have in practice contested relatively few PPM measures before the DSB, and, more importantly, prohibition of PPM measures is the most extreme form of regulation of such trade restrictions. The use of PPM measures can also be disciplined on the basis of different criteria, in particular those of art XX of the GATT. In fact, it is likely that the original *Tuna-Dolphin* GATT Panels, and the insider trade policy elite at that time, were favourable to the simplicity of the product-process distinction, which represented what John Jackson referred to as a "bright-line rule"; *see* John Jackson, 'Comments on *Shrimp/Turtle* and the Product/Process Distinction' (2000) 11 (2) EJIL 303. The current approach of the WTO case law on PPM measures is arguably more legally coherent but definitely less simple than the initial product-process distinction.

[45] *See* Appellate Body Report, *Japan – Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 Nov. 1996 (*Japan – Alcohol II*), p 15.

[46] *See* eg Joost Pauwelyn, 'Recent Books on Trade an Environment: GATT Phantoms Still Haunt the WTO' (2004) 15 (3) EJIL 575, 585.

[47] *See Japan – Alcohol II*, Appellate Body Report (n 45), p 16.

[48] *See* Schoenbaum (n 35) 288, 290; Atsuko Okubo, 'Environmental Labelling Programs and the GATT/WTO Regime' (1999) 11 Georgetown Int'l L Rev 599, 618 ff; Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 189; Steve Charnovitz, 'The Law of Environmental 'PPMs' in the WTO: Debunking the Myth of Illegality' (2002) 27(1) Yale J Int'l L 59, 76 ff; Gabrielle Marceau, 'WTO Dispute Settlement and Human Rights' (2002) 13 (4) EJIL 753, 807; Joshi, Manoj, 'Are Eco-Labels Consistent with World Trade Organisation Agreements?'(2004) 38 (1) JWT 69, 79; Pauwelyn (n 46) 585.

[49] *See* eg GATT Secretariat (n 38). *See* also Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 189; Charnovitz (n 48) 76 ff; Schoenbaum (n 35) 288 and 290; Okubo (n 48) 618 ff; Marceau (n 48) 807; Joshi (n 48) 79; Pauwelyn (n 46) 585.

[50] *See* John Jackson, *The World Trading System* (The MIT Press 1997) 238; Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 187 ff; Charnovitz (n 48) 60; Howse and Regan (n 8) 249; Erich Vranes, *Trade and the Environment: Fundamental*

as an overly literal and context-independent interpretation and therefore as lacking justification under the generally accepted rules of interpretation.[51] Their result also led to broad criticism from environmental groups, since they were perceived as resulting in unwarranted legal constraints on trade measures designed to discourage environmentally harmful activities occurring in other countries.[52] In particular, it was feared that the prohibition of the use of trade measures to achieve environmental objectives could in fact reinforce the risks of international inaction and free-riding. Game theory may shed some light on this issue through the so-called "Prisoner's Dilemma", which is typical of international environmental cooperation problems[53] and which may lead to the "Tragedy of the Commons" if no trade sanctions may be taken to induce cooperation, at least when internationally shared resources or global public goods are concerned.[54]

Hence, in brief, the *US – Tuna* GATT 1947 Panel reports gave rise to very strong arguments both from proponents and opponents of PPM measures and highlighted a situation in which trade and environmental interests were very clearly and strongly opposed. From a legal standpoint, the two GATT Panel reports also clearly favoured trade interests by excluding the justifiability of PPM measures, to avoid "threatening" the multilateral trading system, but without a very detailed and solid legal interpretation. This result was probably damaging both for trade and environmental interests: the ability of importing countries to use trade measures to promote environmental protection goals was denied but these reports have also generated significant hostility and attacks from parts of civil society against the world trading system as a whole, which was seen as an obstacle to the promotion of certain non-trade interests, such as environmental protection. In any case, this situation gave rise to intense legal debates in academic writings, which continued at the beginning of the WTO era.[55]

Issues in International Law, WTO Law and Legal Theory (OUP 2009) 322; Barbara Cooreman, *Global Environmental Protection Through Trade: A Systematic Approach to Extraterritoriality* (Edward Elgar 2017) 322. *See* also Mitsuo Matsushita and others, *The World Trade Organization : Law, Practice, and Policy* (3rd edn, OUP 2015) 722 ff.

[51] *See* Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 187 ff; Howse and Regan (n 8) 249 ff; Michael J. Trebilcock and Shiva K. Giri, *The National Treatment Principle in International Trade Law*, (2004) American Law and Economics Association Annual Meeting, Working Paper no 8 (http://law.bepress.com/cgi/viewcontent.cgi?article=1007&context=alea), p 55; Vranes (n 50) 322; Cooreman (n 50) 29, 52.

[52] *See* Jackson, *The World Trading System* (n 50); Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 188; Charnovitz (n 48) 60.

[53] *See* eg Sifonios, *Environmental Process and Production Methods* (n 2) 30 ff.

[54] *See Ibid* 32 ff.

[55] *See* Andreas R. Ziegler, 'The Environmental Provisions of the World Trade Organization (WTO)' in *International Economic Law with a Human Face* (KLI 1998); Howse and Regan (n 8); Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8); Charnovitz (n 48); Bhagwati, *In Defense of Globalization* (n 37); Laura Nielsen, *The*

IV. The WTO Era: The Evolution of the PPM Debate

A. Towards the integration of environmental interests in WTO case law

The *Tuna-Dolphin* dispute started under the GATT era but continued after the creation of the WTO in 1996, since the US dolphin-safe measure remained in force and the Mexican tuna industry continued to use the harvesting methods excluded by the US scheme. With the creation of the WTO, the dispute settlement system fundamentally changed, with the establishment of a quasi-judicial body, the possibility to appeal panel reports, the automatic adoption of reports in the absence of negative consensus, etc. As a result, like the different *US – Tuna* reports show, the legal reasoning has become much more complex, allowing also a more balanced approach to the necessary trade-offs between trade and the environment.[56] This evolution is visible in different aspects of the *US – Tuna II (Mexico)* reports adopted by the DSB through the years, which eventually upheld a PPM measure, at the end of a long judicial and diplomatic saga. The next sections present some of the most important features of this evolution of the PPM debate.

B. The applicable disciplines

With respect to the GATT, a first notable evolution is the question of whether the prohibition of certain imported products based on their PPMs must be qualified as an internal sale prohibition subject to the National Treatment obligation (Article III) or whether it amounts to an import prohibition (Article XI), which contains more stringent conditions. The two initial *US – Tuna* reports considered that since PPMs could not influence tuna "as a product", they had to be qualified as an import prohibition subject to Article XI.[57] This very literal textual interpretation, which did not take into account the object and purpose of the National Treatment clause, was much criticised in academic writings.[58] It has not been endorsed by the Appellate Body,

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WTO, Animals and PPMs (Martinus Nijhoff Publishers 2007); Daniel Regan, 'How to Think about PPMs' in Thomas Cottier and others (eds), *International Trade Regulation and the Mitigation of Climate Change: World Trade Forum* (Cambridge University Press 2009) 97 ff.

[56] *See* also Weihuan Zhou and Henry Gao, '"Overreaching" or "Overreacting"? Reflections on the Judicial Function and Approaches of WTO Appellate Body' (2019) University of New South Wales Faculty of Law Research Series 49.

[57] *See US – Tuna I*, Panel Report (n 7), para 5.15; *US – Tuna II*, Panel Report (n 4), para 5.9.

[58] *See* Hudec, 'The Product-Process Distinction in GATT/WTO Jurisprudence' (n 8) 187 ff; Howse and Regan (n 8) 249 ff; Vranes (n 50) 322; Cooreman (n 50) 29, 52; Meredith Crowley and Robert Howse, 'Tuna – Dolphin II: a Legal and Economic Analysis of the Appellate Body Report' (2014) 13(2) WTR 321, 325 ff. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 101 ff.

which has developed an economic interpretation of the concept of "like product"[59] (which is central to the National Treatment obligation), which implies that PPM measures are covered by Article III insofar as they can affect the internal sale of products in the importing state's market.[60] Therefore, the contested measure in the *US – Tuna II (Mexico)* reports was analysed under GATT Article III and the parties did not contest that the measure at issue fell within the ambit of this provision.[61]

C. The non-discrimination provisions and the relevance of the regulatory purpose

The *US – Tuna II (Mexico)* reports have also contributed to clarify one of the main controversies concerning the PPM debate, i.e. the relevance of the regulatory purpose in the analysis of the different conditions of the non-discrimination clauses (Articles I and III of the GATT). Some have argued that PPM measures could comply with the non-discrimination obligations if it could be established that two physically identical products have notable differences from the viewpoint of a legitimate non-protectionist policy[62] (such as whether a tuna product is dolphin-safe). The Appellate Body has not endorsed this view, even though the definition of "like products" has fluctuated much in case law.[63] In the *US – Tuna II (Mexico)* case, the parties seemed to accept that the main stakes did not reside anymore in this notion and agreed that the products at issue were like.[64]

More recently, the attention in academic writings has tended to turn to the discriminatory treatment conditions of the non-discrimination clauses.[65]

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[59] *See Japan – Alcohol II*, Appellate Body Report (n 45), 16; Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, adopted 5 April 2001 (*EC – Asbestos*), para 98. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 108 ff.

[60] *See Japan – Alcohol II*, Appellate Body Report (n 45), 16. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 108 ff.

[61] *See US – Tuna II (Mexico)*, Appellate Body Report (n 18), para 7.471.

[62] *See* Robert E. Hudec, 'GATT/WTO Constraints on National Regulation: Requiem for an "Aim and Effects" Test' (1998) 32 The International Lawyer 619 ff; Howse and Regan (n 8) 266; Henrik Horn and Joseph H. H. Weiler, 'EC – Asbestos', *in* Henrik Horn and Petros Mavroidis (eds), *The WTO Case Law of 2001: The American Law Institute Reporters' Studies* (Cambridge University Press 2003), 14, 25 ff; Frieder Roessler, 'Beyond the Ostensible, A Tribute to Professor Robert Hudec's Insights on the Determination of the Likeness of Products Under the National Treatment Provisions of the General Agreement on Tariffs and Trade' (2003) 37(4) JWT (2003) 771 ff. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 117 ff.

[63] For a detailed analysis of these evolutions of the concept of like products in case law, *see* eg Sifonios, *Environmental Process and Production Methods* (n 2) 98 ff.

[64] *See US – Tuna II (Mexico)*, Appellate Body Report (n 18), para 7.471.

[65] *See* Henrik Horn and Petros C. Mavroidis, 'Still Hazy after all these Years: The Interpretation of National Treatment in the GATT/WTO Case-Law on Tax Discrimination'

It has been argued that the regulatory purpose of the measure could be relevant in the analysis of whether a measure is discriminatory. In this context, the debate was whether, for a measure to be deemed as necessary, it was sufficient that it resulted in discriminatory effects against imported like products or if a further analysis was then necessary. This second step would be whether these discriminatory effects could be explained by a legitimate regulatory objective; if not, it would mean that the measure at issue actually also has a discriminatory purpose.[66] Different views have been expressed on this subject in academic writings[67] and several cases brought to the DSB have dealt with this issue,[68] including the *US – Tuna* case.

Even though these clarifications have been gradually provided by different reports, the *US – Tuna* reports have contributed to clarify some important points, in particular when it comes to the difference in the interpretation of the discriminatory conditions of the TBT Agreement and the GATT and in the overall relation between these two agreements. First, in the context of both agreements, the analysis starts with an examination of whether the measure has a detrimental impact on competitive opportunities for imported products compared to like domestic products (or like products from other countries), i.e. whether it has a discriminatory effect.[69] The existence of such a detrimental impact on imported products is sufficient for a violation of

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(2004) 15 (1) EJIL 39, 60 ff; Petros C. Mavroidis, *Trade in Goods: The GATT and the Other Agreements Regulating Trade in Goods* (OUP 2008) 227 ff, 242 ff; Pauwelyn (n 46) 358 ff; Regan (n 55) 122; Nicolas F. Diebold, *Non-Discrimination in International Trade in Services: "Likeness" in WTO/GATS* (Cambridge University Press 2010) 82; Lothar Ehring, 'National Treatment under the GATT 1994: Jurisprudential Developments on *De Facto* Discrimination' in Anselm Kamperman Sanders (ed), *The Principle of National Treatment in International Economic Law* (Edward Elgar 2014) 48 ff; Crowley and Howse (n 58), p 332. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 137 ff.

66 *See* eg Sifonios, *Environmental Process and Production Methods* (n 2) 137 ff.

67 *See* Horn and Mavroidis (n 65), 60 ff; Federico Ortino, 'WTO Jurisprudence on *De Jure* and *De Facto* Discrimination', in Federico Ortino and Ernst-Ulrich Petersmann (eds), *The WTO Dispute Settlement System, 1995-2003* (KLI 2004), 217, 182 f; Mavroidis (n 65) 227 ff, 242 ff; Pauwelyn (n 46) 358 ff; Regan (n 55) 122; Vranes (n 50) 247 ff; Diebold (n 65) 82; Ehring (n 65) 48 ff.

68 Such as *Chile – Alcohol*, *Dominican Republic – Cigarettes*, *EC – Biotech*, *US – Clove Cigarettes* or *EC – Seal Products*.

69 *See US – Tuna II (Mexico) 21.5*, Panel Report (n 24), paras 7.432 and 7.481 (referring to the Appellate Body Report in *EC – Seal Products: European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/R, WT/DS401/R, adopted 18 June 2014, paras 5.93 and 5.105); *US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 18), para 7.277; Panels Reports, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by the United States, United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Recourse to Article 21.5 of the DSU by the Mexico*, WT/DS381/RW/USA; WT/DS381/RW2, 26 October 2017 [*US – Tuna II (Mexico) 21.5 II*], para 7.720.

the GATT non-discrimination obligations, in particular Articles I and III. By contrast, TBT Agreement Article 2.1 requires a further analysis, namely whether the detrimental impact of a measure on competitive opportunities for like imported products stems exclusively from a legitimate regulatory distinction (i.e. whether the measure has no discriminatory purpose).[70] Under the GATT, such analysis of the regulatory purpose is not relevant in the analysis of the discriminatory conditions of Articles I and III and is thus only examined in the general exceptions provision of Article XX (an equivalent to which is absent from the TBT Agreement).

With these findings, the interpretation of the main conditions of the non-discrimination provisions of the GATT and the TBT Agreement and their interaction have been significantly clarified, after three decades of intense debates. These debates did not exclusively concern PPMs but were often discussed in the context of such measures. In any event, this evolution shows that even though a PPM measure is likely to violate the GATT non-discrimination provisions, the general exceptions may provide justification for their application (which the original *US – Tuna* GATT Panel reports had still categorically rejected).

D. The non-discrimination analyses in *US – Tuna II (Mexico)*

When it comes to non-discrimination analyses in the *US – Tuna II (Mexico)* case, the reports extensively address the general issue of whether there might be prohibited discrimination by excluding the eligibility of the dolphin-safe label for particular fishing methods. These analyses focus on "even-handedness" and whether the differences in treatment (between different fishing methods in different places of the ocean) are "calibrated" to the different risks stemming from each situation. This "calibration" represents the heart of the compliance proceedings, since in the two of them the Panels and the Appellate Body analysed in great length whether the changes brought by the US to their dolphin-safe labelling requirements were sufficient to address dolphin mortality arising from fishing methods other than by setting on dolphins outside the ETP.

Such analyses are typical of non-discrimination cases and tend to ascertain whether the different treatment, in all its different factual aspects, is justified by a legitimate regulatory purpose. But at no point the reports even mention that differences in fishing methods, i.e. in PPMs, could exclude justifiability

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[70] *See US – Tuna II (Mexico) 21.5*, Panel Report (n 24), paras 7.432 and 7.481; *US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 18), para 7.277; *US – Tuna II (Mexico) 21.5 II*, Panels Reports (n 69), para 7.720.

under WTO law. The result is more coherent with the object and purpose of the WTO agreements, which can be viewed in this context as disciplining the use of protectionist measures disguised as non-protectionist regulatory goals,[71] and not as an instrument imposing deregulation.[72] In other words, its function is not to prevent WTO Members from using trade instruments for legitimate non-protectionist policy objectives.

In practice, the Appellate Body did not question the level of dolphin protection chosen by the United States, i.e. it showed deference to the regulating WTO Member in its choice of a legitimate non-protectionist policy. Hence, it noted that the US measure "fully" addressed the adverse effects on dolphins resulting from setting on dolphins in the ETP.[73] Since the Appellate Body respected the US chosen level of protection, the results of the *US – Tuna II (Mexico)* reports have in fact been an increase in environmental protection, since the dolphin protection standards in the ETP have remained unchanged, while those outside the ETP have been strengthened (highest common denominator).

Yet, in order to avoid any disguised protectionism, the Appellate Body examined thoroughly the different elements of the measure. Some of them did not seem coherent with the dolphin-protection objective (lower dolphin-protection standard outside the ETP, despite the existence of certain risks) and were thus viewed as discriminatory. Even though the US eventually won, it had to amend its legislation twice for its measure to be upheld. But even in its final version, the contested measure still addressed the same externality (risks of harm caused to dolphins) in different ways, on the basis of differences in the magnitude of these externalities (respective importance of the risks of harming dolphins in different areas of the ocean). At the end, the WTO dispute settlement system has not been overly intrusive into the US environmental policy choices, while disciplining with significant precision the elements it deemed protectionist.[74]

In this respect, the final result of the *Tuna-Dolphin* WTO proceedings, compared to the GATT 1947 ones, shows a remarkable evolution in the integration of environmental interests in the interpretation of WTO law and in the debate on trade and the environment more generally.

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71 *See* Zhou and Gao (n 56).
72 *See* Mavroidis (n 65) 228.
73 *See US – Tuna II (Mexico)*, Appellate Body Report (n 18), para 297.
74 *See* also Zhou and Gao (n 56).

E. GATT Article XX

Concerning Article XX of the GATT, different interesting elements can be pointed out in the *US – Tuna II (Mexico)* reports. These reports, like the majority of those which have applied Article XX, have given a crucial role to the chapeau of Article XX, which have become the most important conditions of the GATT for the justification of environmental trade measures.[75]

Moreover, in this context, the *US – Tuna II (Mexico)* reports have contributed to clarify concerns about the relation between the chapeau of Article XX of the GATT and the non-discrimination provision of Article 2.1 of the TBT Agreement. The Appellate Body held that in the context of the chapeau, one of the most important factors in the assessment of arbitrary or unjustifiable discrimination is the question of whether the discrimination can be reconciled with, or is rationally related to, the policy objective with respect to which the measure has been provisionally justified under one of the subparagraphs of Article XX.[76] This analysis presents similarities with that which must be done in the context of Article 2.1 of the TBT Agreement. The Appellate Body accepted that so long as the similarities and differences between Article 2.1 of the TBT Agreement and Article XX of the GATT are taken into account, it might be permissible to rely on reasoning in the context of one of the agreements for purposes of conducting an analysis under the other.[77]

In the context of the *US – Tuna II (Mexico)* reports, it meant that under both agreements, the issue was whether differences in treatment under the measure at issue were justified by reference to the objective of dolphin protection, because such differences reflected the differences in the risks arising in different fisheries and were "calibrated" to those different risks. In the view of the Appellate Body, the "calibration" analysis under TBT Agreement Article 2.1 encompassed consideration of the rational relationship between the regulatory distinction and its objective. In that respect, this analysis also demonstrated that the measure was not designed in a manner that constituted arbitrary or unjustifiable discrimination within the meaning of Article XX.[78] As long as the measure had been properly "calibrated", the measure was considered as consistent with TBT Agreement Article 2.1 and the conditions of the chapeau of Article XX (no arbitrary or unjustified discrimination).[79]

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[75] *See* eg Sifonios, *Environmental Process and Production Methods* (n 2) 298 ff.

[76] *See US – Tuna II (Mexico) 21.5 II*, Appellate Body Report (n 30), para 6.278; *US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 22), para.7.316; *EC – Seal Products*, Appellate Body Report (n 69), para 5.306.

[77] *See US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 22), para 7.347.

[78] *See US – Tuna II (Mexico) 21.5 II*, Appellate Body Report (n 30), para 6.279.

[79] *See US – Tuna II (Mexico) 21.5*, Appellate Body Report (n 22), para 6.280.

In other words, the "proper calibration tool" could serve in the context of both agreements.[80] Thereby, the relation between the TBT Agreement and the GATT has been clarified. Even though these agreements have significant differences – in particular the fact that the TBT Agreement implies that all non-discrimination analyses are conducted under Article 2.1, whereas the GATT requires an analysis of both the non-discrimination provisions and the general exceptions provision – these analyses have similarities and converge to a certain extent, which is of course important to achieve a coherent and consistent interpretation of both agreements.

A further interesting evolution concerns the "extraterritoriality" debate. One of the main reasons why the *US – Tuna* GATT Panels held that PPM measures could not be justified under Article XX of the GATT was their perceived "extraterritorial" nature and the supposed risks that this nature implied for the multilateral trading system.[81] At the outset of the *Tuna-Dolphin* disputes, it was frequently maintained that PPM measures interfered with the exporting country's sovereign right under international law to regulate activities occurring within its jurisdiction and that they had to be seen as extraterritorial.[82] Certain countries also supported the view that PPM measures represented a form of interference in internal affairs, which violated the international law principle of non-intervention.[83] Finally, many developing states have opposed the use of PPM measures because they were perceived as conflicting with these countries' right to choose their environmental and developmental policies according to their own priorities and their permanent sovereignty over natural resources.[84]

From a legal standpoint, and even though there has been notable legal debates on the issue,[85] these arguments should be largely rejected as far as public international law is concerned, in particular because there is no right to trade and each country has the sovereign right to choose the conditions to which products can be imported in its territory.[86] The ICJ has also rejected

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[80] *Ibid*.

[81] *See US – Tuna I*, Panel Report (n 7), para, 5.28; *US – Tuna II*, Panel Report (n 4), para 5.26. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 166 ff.

[82] *See* Bagwell (n 35) 76; Horn and Mavroidis (n 65) 1125; Jansen and Lugard (n 35) 533, 535; Schoenbaum (n 35) 279 ff. *See* also Jackson, 'World Trade Rules and Environmental Policies: Congruence or Conflict?' (n 35) 1244; *US – Tuna II*, Panel Report (n 4), para 5.17. *See* also, Sifonios, *Environmental Process and Production Methods* (n 2) ch 5.

[83] *See* Gathii (n 36) 2029 ff. *See* also the arguments of the complainants in the *US – Shrimp* case, Panel Report (n 36), paras 3.6, 3.41, 3.104 and particularly 3.157.

[84] *See* eg Sifonios, *Environmental Process and Production Methods* (n 2) 9 ff.

[85] For a detailed analysis of the issue of extraterritoriality and trade measures, *see* eg Sifonios, *Environmental Process and Production Methods* (n 2) 67 ff.

[86] *See Ibid* 79.

that economic sanctions could amount to interference in the internal affairs of a foreign state.[87]

Nevertheless, the *US – Tuna I* GATT Panel applied a very strict approach concerning extraterritoriality, since it held that Article XX of the GATT concerned only the use of trade measures to safeguard life or health of humans, animals or plants *within* the jurisdiction of the importing country.[88] It made a similar reasoning with respect to Article XX(g) of the GATT.[89] It further described the argument made by the United States as an "extrajurisdictional interpretation" of Article XX of the GATT,[90] which could lead to a situation in which the GATT could "no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations".[91] The *US – Tuna II* GATT Panel report resulted in similar findings.[92] More generally, at the end of the GATT era, it was "notoriously almost impossible" to justify a restrictive trade measure under Article XX of the GATT.[93]

In the *US – Tuna II (Mexico)* reports, this issue of extraterritoriality has considerably evolved. As such, it has not been examined at all. In the view of the Appellate Body, it was sufficient that the measure aimed at ensuring that the US market was not used to encourage fishing fleets to harvest tuna in a manner that adversely affected dolphins.[94] The *US – Tuna II (Mexico) 21.5* Panel applied a similar reasoning in the context of Article XX(g) of the GATT.[95] Thus, while this measure would have been qualified as extraterritorial under the reasoning of the *US – Tuna I* and *II* GATT Panels,[96] the WTO Appellate Body seemed to consider the measure as "territorial" in the *US – Tuna II (Mexico)* report. In order to guarantee a "coherent and consistent" interpretation of the GATT and the TBT Agreement,[97] it is likely that the Appellate Body would apply a similar interpretation for both agreements. It

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87 *Military and Paramilitary Activities in and against Nicaragua* (Nicaragua v. United States), Merits, Judgement, ICJ Reports (1986), para 205. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 80 ff.

88 *See US –Tuna I*, Panel Report (n 7), para 5.26.

89 *Ibid*, para 5.32.

90 *Ibid*, paras 5.28 and 5.32.

91 *Ibid*, para 5.28.

92 *See US – Tuna II*, Panel Report (n 4), para 5.17 ff.

93 *See* Robert Howse, 'The World Trade Organization 20 years On: Global Governance by Judiciary' (2016) 27(1) EJIL 9, 48.

94 *See US – Tuna II (Mexico)*, Panel Report (n 15), paras 7.401 and 7.425; *US – Tuna II (Mexico)*, Appellate Body Report (n 18), para. 337.

95 *See US – Tuna II (Mexico) 21.5*, Panel Report (n 24), para 7.522 ff.

96 *See* eg Sifonios, *Environmental Process and Production Methods* (n 2) 166 ff.

97 *See* Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, adopted 24 April 2012 (*US – Clove Cigarettes*), para

is thus unlikely that the "extraterritoriality" issue will play a significant role in future cases in the context of Article XX of the GATT either, even though it seemed that it was the cornerstone of the *US – Tuna I* and *II* Panels' rejection of PPM measures.

In any case, it seems that the rigid prohibition of "exterritorial" PPM measures has been replaced by a more flexible and balanced approach, which focused, in the *US – Tuna II (Mexico)* reports, on the "even-handedness" of the measure and on whether the different treatment granted to different fishing methods were "calibrated" to the different risks to dolphins in different parts of the ocean.

V. Comments and Concluding Remarks

The *Tuna-Dolphin* saga has shown a considerable development in the debate on trade and the environment at the GATT/WTO, which has crystallised in particular in the evolution of the PPM issue. At the end of the GATT era, a very strict approach against PPM measures prevailed in the *US – Tuna* reports. This approach has evolved significantly during the first two decades of the WTO, in the context of which no prohibition of PPM measures has been endorsed. In the *US – Tuna II (Mexico)* case, a process-based measure has been eventually upheld both under the GATT and the TBT Agreement. The final result of the *Tuna-Dolphin* saga shows a very significant integration of environmental concerns into WTO law. Not only was the measure eventually upheld, but the US actually never had to lower the level of dolphin protection in the ETP it had chosen. The only modifications brought raised the level of protection outside the ETP, which therefore increased the overall dolphin protection level in all parts of the ocean (highest common denominator).

As such, this evolution is quite remarkable, in the light of the virulence of the controversies around PPM measures during the 1990s, where the respective positions were quite extreme, with on the one hand, the argument that allowing PPM measures could represent the "end" of the multilateral trading system,[98] and on the other hand, the fear that the GATT represented an important threat to environmental protection, state sovereignty

91 (stating that the GATT and the TBT "should be interpreted in a coherent and consistent manner").

[98] *See US – Tuna I*, Panel Report (n 7), para 5.28; *US – Tuna II*, Panel Report (n 4), para 5.26. *See* also *US – Shrimp*, Panel Report (n 36), para. 7.45 (the Appellate Body overturned the findings of the Panel in its *US –Shrimp* report).

and the ability to address global environmental problems ("GATTzilla"[99]). The two initial *US – Tuna* GATT Panel reports reflected the view that prevailed among the insider trade policy elite at the end of the GATT era, which strongly supported the product-process distinction and pushed towards further neo-liberal globalization, through harmonization and deregulation.[100] In this view, PPMs could be seen as implying important risks of protectionist abuses that would impede developments towards the free trade ideal.[101] By contrast, for environmentalists and part of the civil society, the prohibition of PPM measures, and thereby the inability to use trade measures to address global environmental problems or sanction free-riding, could eventually lead to potentially catastrophic environmental consequences (species extinction, loss of biodiversity, overexploitation of fish stocks, climate change, etc.).[102]

In the context of the WTO, and with the development of the Appellate Body's case law, the search for this "free trade" ideal has evolved. The objective of sustainable development has been introduced into the Preamble of the Marrakesh Agreement establishing the WTO. As it has been developed elsewhere, despite its vague nature, the concept of sustainable development may be seen as a common vision of the future of WTO Members, which attempts to reconcile the free trade ideal with the need to take environmental interests into account.[103] For the Appellate Body, the concept of sustainable development brings "colour, texture and shading" to the interpretation of the WTO agreements.[104] This concept may thus have influenced the evolution of debate on trade and the environment at the WTO.

Besides, the judicialization of the multilateral trading system has probably also played an important role in achieving a better balance between trade and environmental interests.[105] First, the WTO judicial system has developed more legally based analyses,[106] and paid for instance more attention to the customary rules on treaty interpretation than the GATT Panels did. In

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[99] *See* eg Esty (n 9) 35 ff; Strauss (n 9) 769 ff.

[100] *See* Howse (n 93) 21. *See* also Sifonios, *Environmental Process and Production Methods* (n 2) 12 ff; GATT Secretariat (n 38).

[101] *See* Andreas R. Ziegler and David Sifonios, 'The Assessment of Environmental Risks and Process and Production Methods (PPMs) in International Trade Law' in Monika Ambrus, Rosemary Rayfuse and Wouter Werner (eds), *Risk and the Regulation of Uncertainty in International Law* (OUP 2017) 219, 223 ff, for a discussion about this vision of a "free trade" ideal future.

[102] *See* Ziegler and Sifonios, 'The Assessment of Environmental Risks and Process and Production Methods (PPMs) in International Trade Law' (n 101) 224.

[103] *See Ibid* 230.

[104] *See* Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, adopted 6 November 1998 (*US – Shrimp*), para 153.

[105] *See* eg Howse (n 93) 25 ff.

[106] *See Ibid* 27. For a detailed analysis, *see* Sifonios, *Environmental Process and Production Methods* (n 2) chs 6, 7.

the *Tuna-Dolphin* reports, this evolution is visible in particular in the PPM debate. For example, based on a purely textual interpretation of Article III of the GATT, the GATT Panels had considered that PPM measures were not covered by this provision.[107] This restrictive view has obviously not been followed by the Appellate Body, in the light of the purpose of the National Treatment obligation (i.e. avoiding protectionism in the application of internal fiscal and regulatory measures).[108] In the context of Article XX, the "extraterritorial" nature and the supposed risks it entailed for the multilateral trading system was sufficient in the view of the GATT Panels to exclude any justifiability of PPM measures under Article XX of the GATT. By contrast, as mentioned above, the Appellate Body did not even mention the issue of extraterritoriality and applied instead a legally sophisticated non-discrimination analysis focusing on the fine discriminatory elements of a measure which was otherwise not contested by the WTO adjudicating bodies.

There is no doubt that this approach, which is more based on the rule of law, has been possible because of the institutional developments that occurred at the time of the creation of the WTO. In particular, the possibility to appeal panel reports has encouraged panels to better develop their legal argumentation, to avoid being overturned by the Appellate Body. The Appellate Body itself has been able to concentrate on legal matters, not unlike national appeal courts. Moreover, the right to challenge measures taken to comply with the DSB recommendations and rulings has given the possibility to verify what the implementation of those recommendations require in practice. Finally, the automatic adoption of reports in the absence of a negative consensus among WTO Members means that the losing party cannot block the adoption of a report, which may thus in turn influence future reports by WTO panels and the Appellate Body and bring a contribution to the development of WTO case law.

But this evolution can probably also be explained by the efforts to guarantee the external legitimacy of the WTO, i.e. the legitimacy towards the civil society.[109] In the *Tuna-Dolphin* case, the Appellate Body has been much more deferential to the regulating Member than the GATT Panels. This greater sensitivity towards non-trade values is clearly visible in the *Tuna-Dolphin* case, in the light of the considerable differences in the general approaches applied respectively under the GATT era and under the WTO by the respective reports, despite a similar factual basis. In this context, it is interesting to remember that following the *US – Tuna* GATT Panel reports,

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[107] *See* eg Crowley and Howse (n 58) 325.
[108] *See* Sifonios, *Environmental Process and Production Methods* (n 2) 108.
[109] *See* eg *Ibid* 148; Howse (n 93).

the multilateral trading system was the target of the anti-globalization movements.[110] Therefore, aggressive enforcement of neo-liberal globalization, in a similar way as that applied by the GATT Panels, would have been risky for the external legitimacy of the Appellate Body, much more than showing deference to non-trade values, such as environmental protection.[111] In light of the inability of WTO Members to agree on further trade liberalization in their multilateral negotiations, any development in such direction that would have been brought by judicial action could have been seen as problematic for the principle of states sovereignty and the external legitimacy of case law (in particular in light of the automatic adoption of WTO adjudicating reports in the absence of negative consensus).

But at the same time, to avoid impeding the internal legitimacy of the WTO dispute settlement system, the Appellate Body had nonetheless to discipline the protectionist abuses of measures taken to achieve a legitimate objective.[112] As a consequence, WTO adjudicating bodies have shifted their attention to the fine and technical details of the enacted provisions and to their discriminatory elements.[113] In any case, through this more deferential approach, the WTO judicial institution has in a concrete way integrated non-trade values into the interpretation and implementation of WTO law.

It should nonetheless be pointed out that a risk exists, with a strict application of the Appellate Body's approach seen in the *US – Tuna II (Mexico)* case, that case law could evolve towards a form of ad-hoc decision-making,[114] i.e. a focus on particular features that are specific to a particular factual situation, which could raise on the long term issues about legal security and coherence. Such form of ad-hoc decision-making also increases the risks of "never-ending story", as the *Tuna-Dolphin* saga has shown, with the temptation of the complaining party to attempt reopening the case in the compliance proceedings, which could, in turn, reduce the legal security and the authority of Appellate Body reports. As mentioned above, the greater deference towards the regulating countries shown by WTO case law, and in particular in the *US – Tuna II (Mexico)* reports, has certainly contributed to the external legitimacy of the WTO. But in the long run, it is also important to guarantee legal security and the efficient settlement of disputes and the *US- Tuna II (Mexico)* reports have left some room for improvement on this matter. This might be the next challenge of the DSB. The difficulty of

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[110] *See* eg Howse (n 93) 10.
[111] *See Ibid* 30.
[112] *See Ibid*.
[113] *See* Zhou and Gao (n 56); Howse (n 93) 53.
[114] *See* Gary Coglianese and André Sapir, 'Risk and Regulatory Calibration: WTO Compliance Review of the US Dolphin-Safe Tuna Labeling Regime' (2017) 16(2) WTR 327.

this objective is yet reinforced by the current near practical impossibility to change the wording of the WTO covered agreements, which contain many rather vague concepts open to interpretation in many of their most important provisions, such as those relating to non-discrimination and the general exceptions. In this view, the task of the DSB is sometimes akin to squaring the circle.[115]

When it comes to the PPM issue as such, the initial debate about their exclusion under WTO law is now largely settled, as the evolution of the *Tuna-Dolphin* saga has shown. However, the use of such measures still raises certain sensitive issues. PPMs have some specific features requiring a balanced approach between trade, environmental protection and development.

As it has been developed elsewhere, different criteria can be used to differentiate the deference that should be shown to the regulating Member wishing to adopt a PPM measure and to help WTO adjudicating bodies in their aforementioned challenge to "square the circle".[116] Such criteria may be for example the proximity of interests between the importing country and the environmental situation concerned (transboundary externalities, protection of shared resources, global public goods, etc.).[117] Another possible criterion is the intensity of the nexus between the products concerned and the environmental risks at stake.[118] PPM measures should also leave enough flexibility to the exporting Member in the choice of the instruments adopted to achieve the environmental goal set by the importing Member.[119] Moreover, since the most efficient environmental measures are those which allow an intervention at the source, WTO Members should negotiate with their trading partners to adopt multilateral environmental agreements.[120] Finally, the regulating Member should possibly take into account the interests of developing countries, in which different conditions can occur or which may have specific needs in terms of special and differential treatment.[121]

The specific conditions and needs of developing countries may be relevant in particular in the examination of the chapeau of Article XX of the GATT, which refers *inter alia* to unjustifiable or arbitrary discrimination between countries where the same conditions prevail. In the view of the Appellate Body, this condition may require an importing country to inquire into the

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[115] As it has been explained in more details in Sifonios, *Environmental Process and Production Methods* (n 2) 288 ff.
[116] *See* eg *Ibid* 303 ff.
[117] *See* eg *Ibid* 303.
[118] *See* eg *Ibid* 303 ff.
[119] *See* eg *Ibid* 305.
[120] *See* eg *Ibid* 305.
[121] *See* eg *Ibid* 241 ff, 306.

appropriateness of its trade measure for the conditions prevailing in the exporting country.[122] In this context, different elements might be potentially relevant in the analyses to be made, such as: (i) the nature of the environmental issue at stake (e.g. transboundary pollution, shared resources, global public goods, etc.);[123] (ii) the environmental conditions that prevail in the importing and exporting countries concerned (sink capacities, presence or absence of natural resources stocks, distribution of the respective costs and benefits of the environmental good at issue, etc.);[124] (iii) the economic situation of the state concerned (financial and technological means, economic development, etc.); (iv) their respective responsibility for the environmental harm concerned (both presently and historically);[125] or (v) the respective efforts made to protect the environmental resources at issue.

The analyses of these different criteria must be made on a case-by-case basis and any generalization concerning the general appropriate approach to be taken is rather risky. Nonetheless, these analyses could show, for instance, that the nature of the environmental threat at issue and the situation of the different countries concerned might, in certain circumstances, justify different levels of efforts between these different countries. In this context, the principle of common but differentiated responsibility could in certain cases provide some guidance, e.g. to adjust the required efforts to the level of development or the technical and financial means of a country.[126] Such approach seems particularly relevant in the context of possible trade measures taken to address climate change mitigation efforts; they would however be less adequate e.g. for measures aiming at the protection of shared endangered species.[127] When the same level of efforts are required, other possibilities could be implemented to take into account the differing conditions occurring between the different countries concerned, such as technical or financial assistance in the implementation of the PPM measure.[128]

The different criteria that have been mentioned here could provide some flexibility in the examination of PPM measures and the interpretation of WTO rules applicable to discipline their use. They could be helpful to find, for each PPM measure and in the context of the applicable provisions of the

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[122] *See US – Shrimp*, Appellate Body Report (n 104), para 165.
[123] For further details, *see* eg Sifonios, *Environmental Process and Production Methods* (n 2) 23 ff.
[124] For further details, *see* eg *Ibid* 24, 243 ff.
[125] For further details, *see* eg *Ibid* 245 ff.
[126] For further details, *see* eg *Ibid* 245.
[127] Since in the former case (climate change) the overall result depends on the aggregate efforts of states (summation good), whereas in the latter the lack of protection in one country can threaten the overall result (weakest link). *See* eg *Ibid* 23 ff.
[128] *See* eg *Ibid* 244.

WTO agreements (in particular those related to non-discrimination), an adequate balance between potentially competing interests that process-based measures often crystallize, and thereby, ideally, bring a contribution to the achievement of sustainable development.