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Provisions: Three Categories of
Trade and Environment Linkage**

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No. 1485 | February 2009

Web: www.ifw-kiel.de

Kiel Working Paper No.1485 | February 2009

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Keywords: WTO, environment, trade sanctions

JEL classification: F13, F18, K33, B52

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ABSTRACT

The current WTO jurisdiction on linkages of trade and environment is not free of contradictions and has provided for heated debate due to some inconsistencies in past WTO rulings. The article argues that the WTO jurisdiction is not only unclear but also lacks economic reasoning. It aims to structure WTO provisions and WTO case rulings so that their application to three separate dimensions of environmental damage is set out clearly: domestic, cross-border and global pollution. The paper concludes that only cases of cross-border and global pollution can legitimize trade measures against environmental pollution, albeit only direct trade interventions are really effective in these cases.

1. Introduction: The linkage of trade measures and environmental provisions

The demand for a linkage of trade measures to the enforcement of environmental provisions has been voiced more frequently in the past two decades in high income countries. The motivation for this is twofold. On the one hand, trade measures – relative to relying on domestic measures - are seen as an efficient tool for the enforcement of environmental standards on other countries. Hence with growing awareness for global pollution and climate change in particular¹, some industrialized countries want to take the lead in environmental standards and use trade measures to induce other countries to join in the cause. Moreover, it is argued that the effectiveness of climate change policies is undermined if trade measures are not imposed for its implementation, in particular to prevent so-called “carbon leakage”². And on the other hand, trade

¹ In 2007, the Noble Prize for Peace was awarded to the Intergovernmental Panel on Climate Change, IPCC, and Al Gore Jr for their achievements in raising awareness for climate change

² Carbon leakage occurs when there is an increase in carbon dioxide emissions in one country as a result of stricter emissions reduction regulations in another country. See recent article on Euractiv, 16th September 2008, “Experts warn EU of climate change trade war”, at <http://www.euractiv.com/en/climate-change/experts-warn-eu-climate-change-trade-war/article-175426>

measures are used for masked protectionist ambitions, often voiced as the fear of being “disadvantaged” by high domestic environmental standards in competition with other countries that do not employ the same environmental standards.

Hence, the role of the WTO in this matter is crucial because any linkage of trade measures to environmental protection has to comply with WTO/GATT provisions in order to be upheld by the WTO dispute settlement body.

As a response to the growing demand for linkage, the Uruguay Round of trade negotiations settled the reconstitution of a Committee on Trade and the Environment (CTE)³ to examine the interactions between trade and environmental measures, trade measures used for environmental purposes and effects of trade liberalization on the environment⁴. The CTE has not yet recommended any modification to WTO regulations, but has held that current WTO laws provide sufficient scope for the protection of the environment⁵, explicitly referring to the Sanitary and Phytosanitary Measures (SPS) Agreement — which deals with food safety and animal and plant health — and the Technical Barriers to Trade (TBT) Agreement — which addresses product standards and labeling. The CTE held that trade measures are often not ideal as a means to combat cross-border or global environmental problems because they are neither the most appropriate nor the most effective instrument⁶. Discussions in the CTE have shown that the preferred approach of WTO member states to cross-border or global pollution problems is cooperative multilateral action under Multilateral Environmental Agreements (MEA) rather than unilateral measures taken by member states.

There are about 200 MEAs, out of which approximately 20 MEAs use trade measures as an enforcement tool. The most prominent example is the highly effective Montreal Protocol. However, the compatibility of these MEAs with the WTO legal system has not yet been challenged in a dispute settlement. Under the Doha Round, the CTE

³ The CTE includes all WTO members, and is set to meet at least twice a year. It was reconstituted because the group was originally set up in the 1970s but had stopped meeting. Clapp, Dauvergne (2005), p.145

⁴ WTO Trade and Environment Ministerial Decision, 14/04/1994, GATT Doc MTN.TNC/MIN (94)/1/Rev.1, (1994) 33 I.L.M. 1267.

⁵ http://www.wto.org/english/tratop_e/envir_e/envir_req_e.htm#committee

⁶ Cole (2000), p.18

Special Sessions (CTESS) and the CTE Regular were set up⁷, set to discuss the compatibility between MEAs and WTO Agreements.

Hence, despite the fact that linkages of trade measures and environmental protection already exist, its legitimacy remains unclear because the WTO body of law has not been consistent in its case rulings on these matters. Moreover, it has not paid due consideration to economic arguments in its dispute settlement, which adds to the inconsistency. This paper suggests a classification of dispute cases, thereby clarifying what the legitimacy of linkage in each case could be according to the WTO legal system. Further, it adds an economic perspective to the analysis, thereby suggesting how the WTO dispute settlement body could ground its rulings on economic considerations as well as on the WTO body of law.

In chapter 2 the basis for the economic perspective on the trade environment linkage is introduced, which leads to a clear categorization of dispute cases. Then, chapter 3 deals with the environmental provisions in the WTO Agreements, followed by an analysis of WTO dispute settlement cases in chapter 4, which is interpreted according to the categorization that has been introduced in chapter 2. Chapter 5 concludes the findings.

2. The economic basis for differentiating cases of trade and environment linkage

From an economic point of view, the question arises why trade measures should be employed at all in cases of environmental pollution. There is no doubt that the lack of pricing on environmental resources leads to negative external effects which constitute a market failure that can justify state intervention⁸ – the first best solution for that is domestic environmental regulation, that addresses the reasons for market failure directly. But the first best solution holds for domestic spillovers only. It does not hold for negative externalities that spill over to other countries. Hence the question is whether another state has the right to interfere by means of trade measures with the domestic regulations of a foreign country that allows production with negative external effects.

⁷ The World Trade Organization (2004), *Trade and Environment*, p. 11-16

⁸ Krugman, P., Obstfeld, M. (2006), p. 284ff

To disentangle the issues, three different categories of pollution should be distinguished: Domestic environmental damage that has no spillover effects to other countries, and is entirely local within the territory of one state; cross-border pollution that harms a few countries outside the territory of the polluting state, such as acid rain or a polluted river that affects a neighboring country; and finally global environmental damage that harms all states, the most prominent example of which is climate change⁹.

For the purposes of classification, cross-border pollution is defined as **detectable, physical damage** spilling over from one country to another country's territory and thus damaging producers and consumers there – moral, psychological or emotional damage (such as child labor) is not considered a detectable physical pollution. It should be left out of this discussion of economic arguments for linkage because its negative externalities are highly subjective, dependent on cultural differences, and nearly impossible to measure. The extinction of endangered species, for example, is not considered a detectable physical pollution in this paper but as a matter of ethics. The WTO dispute settlement body does not share this view and has taken up conflicting positions on endangered species¹⁰. Moreover, cross-border negative externalities can be either caused by importing a polluting product, i.e. an environmentally “dirty” product, or by some manufacturing process in one country, which causes environmental damage in another country¹¹, hence by polluting process and production methods (PPMs).

In global pollution cases, negative external effects harm all nations and the difficulty lies in measuring the liabilities and cost of consequences on individual countries because all countries are more or less victims and polluters at the same time. One clear example is ozone layer depletion and climate change. Typically, scientific evidence on global pollution is disputed and international agreement on causalities and consequences is rare. The challenge is to measure the most efficient internalization of the costs globally and to distribute it “fairly” on all countries.

⁹ A separation of pollution cases was first made in the 1992 GATT Report on Trade and the Environment, although that report only distinguished between domestic and global pollution cases

¹⁰ See chapters 3 and 4

¹¹ For example, UK causes air pollution which comes down on the forests of Norway's west coast

Hence, out of these three categories of pollution, the first – domestic pollution- is the only one that leaves no negative externalities on other countries, hence it lacks the argument of intervention for market failure since the country imposing trade measures is no victim to that market failure. However, domestic pollution in another country has been evoked several times as a cause for trade measures, and these dispute cases in front of the WTO have been controversial. The WTO dispute settlement rulings on this matter were not consistent over time (see chapter 4).

Depending on the type of pollution, at least three trade measures can be used: direct trade interventions, supporting trade provisions, and trade inducements¹². The first category is the most straightforward: it tackles the pollution directly for example by prohibiting the import of a polluting product¹³, and has good chances of being upheld by the WTO dispute settlement body (see chapter 3 and 4). Supporting trade provisions are trade measures used to enforce another substantive measure, such as an MEA that allows trade restrictions on specified polluting products, even against non-signatories – albeit its compatibility with the WTO remains unclear¹⁴. A more common and WTO compatible example for this supporting trade provision is the import restriction of products that in their use do not comply with domestic environmental regulation, such as import bans on cars that do not comply with domestic emission standards, even though the product itself is not “polluting”. The third category of trade measures, trade inducements, is the most controversial because it may be employed decoupled from the polluting product, as an inducement to join an agreement or as punishment for non-cooperative states. In that it is similar to other inducements such as financial, diplomatic or military means. Trade inducements could be sanctions, which impose trade restrictions on a range of unrelated products¹⁵, or trade incentives, e.g. offering development aid or market access. Victims pay principles that suggest victim countries to pay compensation to polluting countries to stop the pollution would also fall under this category. These various types of trade measures differ in their compatibility with WTO Agreements and it is particularly supporting trade provisions against non-signatories to an MEA or trade inducements that are the most controversial in WTO

¹² Subramanian (1992), p.137

¹³ Such as France’s import ban against construction material from Canada that contained asbestos, see EC Asbestos case (2001)

¹⁴ Such as the Montreal Protocol (1987)

¹⁵ Such as the Pelly Amendment in the dispute on Dolphin and Tuna, or various UN sanctions measures, e.g. against Iraq under Saddam Hussein

dispute cases. These cases also lack the simple economic argument, which direct trade interventions can prove for themselves: only the latter prohibit importing goods with intrinsic negative externalities, whereas in the other two cases that link to negative externalities is not apparent.

These differentiations set out above provide the rationale for the classification of cases in this paper. The WTO dispute settlement body has not used such a classification, which is in part the reason for confusion and inconsistency in the question whether trade and environment linkages are legitimate under the WTO regime.

3. Environmental Provisions in WTO Agreements

Even the preamble to the WTO Agreement refers to the relationship between trade and environment: Together with listing the economic aims of prosperity and growth for all members through trade liberalization, it is stated that the objective is to be achieved whilst also protecting and preserving the environment. In this chapter, the main provisions in the WTO body of law that are relevant to environmental pollution are laid out.

One of the main pillars of the WTO regulatory system is the **principle of non-discrimination**, which is twofold: the WTO principle of most-favored nation (MFN)¹⁶ treatment requires that all advantages such as tariff reductions granted to a product from one WTO member must be granted to “like” products of all WTO members. Secondly, the principle of national treatment¹⁷ holds that WTO members must treat “like products” from foreign producers like their domestically produced products¹⁸, for example what concerns internal taxes and regulations. Hence member countries have to impose the same environmental and health and safety regulations on domestic and foreign products alike. However, there is some confusion about the scope of the meaning of “**likeness**” under WTO provisions because there is no clear definition of

¹⁶ GATT Article I

¹⁷ GATT Article III, *National treatment on internal taxation and regulation*

¹⁸ Kelly (2003), *The WTO, the Environment and Health and Safety Standards*, p.133

“like products” in the GATT/WTO Agreements. The important question in this context is whether polluting products are considered “like” environmentally friendly products.

For an interpretation of this the WTO case rulings must be inferred. In the US-Petroleum case 1987¹⁹ it was held that substantially identical end-uses of a product are a strong indicator of its “likeness”²⁰, leading to the conclusion that pollution in the production process is not enough for a distinction between products if it is not detectable in the end product. This is supported by the case of US – Tuna/Dolphin I (1991)²¹, even though the ruling was never adopted due to the appeal of the US. Here, it was decided that the end products of Mexican tuna and US tuna were “alike” despite different process and production methods (PPMs). Furthermore, the case EC- Asbestos 2001²² held that when products are physically different and some entail the risk of causing harm then they are not “like” products: asbestos fibers were found to be unlike other fibers because the product itself can be damaging irrespective of its production process- hence direct trade intervention, i.e. an import ban, on Canadian asbestos fibers were allowed. So, the WTO principle of non-discrimination and “likeness” is determined on a case-by-case analysis²³. The general guideline is that a polluting production method that does not affect the end product is not a valid basis for differentiation²⁴, as opposed to products that are themselves damaging, i.e. “dirty” goods may be banned from import.

Exemptions from the non-discrimination rules and the general provisions of GATT are laid out in **GATT Article XX**. Its chapeau (introductory clause) holds that there should be no discrimination between countries where the same conditions prevail, and no disguised restriction on international trade²⁵. But Article XX sets out that measures are compatible with GATT/WTO rules if they are:

“b)...necessary to protect human, animal or plant life or health”, and

¹⁹ „US-Gasoline/Clean Air Act“, claim by Venezuela, 1987

²⁰ Bernasconi, N. (2006), p. 48

²¹ „US-Tuna/Dolphin“, claim by Mexico, 1991

²² „France/EC Asbestos“, claim by Canada, 2001

²³ See Bernasconi, N. (2006), p. 9, and Judgment of WTO case „Japan – Alcoholic Beverages“ (1987), Panel report, paragraph 5.5f

²⁴ Bernasconi, N. (2006), p. 30

²⁵ Export restrictions are illegal under Art. XI of GATT, though export taxes are not illegal

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

Besides, the services agreements (GATS) is comparable in its provisions on the environment: the GATS preamble and Article XIV (b) of the GATS are similar to GATT Article XX.

Most importantly, the WTO dispute panel held that “**necessary**” in XX (b) means that there is no alternative measure available to achieve the end of animal, human or plant health that would be more compatible with GATT provisions²⁶.

What concerns Article XX (g) it is clear that all restrictions must hold generally for both foreign and domestic producers²⁷ so that one country’s trading is not unfairly impaired. It must be convincing that the objective of the country imposing the measure is indeed the “preservation of exhaustible natural resources” and not merely protectionism. The goal of preserving ones natural resources should not be born on the shoulders of foreign producers alone. For example, Thailand argued that its trade restrictions on imported cigarettes were “necessary” under Article XX (b)²⁸. The US complained that the import restrictions were unjustified and the GATT dispute settlement panel held in 1990 that reducing cigarette consumption was indeed permissible under Article XX (b). But the discrimination against imported cigarettes was not held to be “necessary” because domestic production and sales of cigarettes remained unrestricted²⁹. However, in the EC Asbestos case the Appellate Body upheld a health-based French ban on construction materials containing asbestos³⁰ as in this case, regulations on domestic producers were equally strict.

In the Tokyo Round (1973-1979) the Standards Code was agreed upon, also called the GATT’s **Agreement on Technical Barriers to Trade (TBT)**. It is meant to regulate the use of standards and prevent them, as far as possible, from being used as non-tariff trade barriers. Harmonized standards, internationally agreed, are desired in the Code

²⁶ Ruling on Dolphin-Tuna case, Macmillan,(2001), *WTO and the Environment*, p.76

²⁷ Neumayer,(2000) *Trade and the Environment: A Critical Assessment and Some Suggestions for Reconciliation*, Journal of Environment & Development, Vol.9, No.2, June 2000, p.138-159, here p.154

²⁸ Thailand – Cigarettes (1990), claim by US, see Bernasconi, N. (2006), p. 92

²⁹ Gatt (1992), „Trade and the Environment“, p.26

³⁰ Bernasconi, N. (2006), p. 81

but countries are allowed to impose stricter standards than other countries if they wish to protect “human, animal or plant life or health...(and) the environment”, hence mentioning the environment explicitly for the first time in the history of GATT regulations, but under the condition that the measures taken do not lead to unnecessary obstacles to trade³¹.

The Uruguay Round (1986-94) extended the scope of the TBT to include product characteristics and their related process and production methods (PPMs) as well. However, consistent with the discussion of “like products” above, the PPMs decided on in the Uruguay Round are limited to those that are product-related, i.e. that have an effect on the characteristics of the product itself³², leaving a trace in the end product.

Furthermore, the WTO members created the Uruguay Round’s **Agreement on Sanitary and Phytosanitary Measures (SPS)**. It has a smaller scope than the TBT; it deals with health risks coming from pests, contaminants and other disease-causing agents. It promotes international standards but allows countries to set their own higher standards of safety if there is scientifically evidenced reason for this. Also, measures have to be no more trade-restrictive than necessary for health and safety purposes³³. Hence trade measures employed under this agreement typically target “dirty” goods, the least controversial case of trade environment linkage.

These two agreements that promote harmonization of national standards have had many critics. In developed countries, civil activists feared that international harmonized standards would curb down the normally higher levels of health and safety standards in industrialized countries, leading eventually to a “race to the bottom”. In developing countries the fear prevailed that their standards will have to rise to a level too costly for them to adhere to. Moreover, these agreements have also been criticized for the provision on scientific justification for the measure. WTO panels normally consist of trade experts and they might lack the expertise to judge on the scientific evidence provided. Countries following this argument, especially the EU, ask for the

³¹ Also see Kelly (2003), p.133

³² United Nations Conference on Trade and Development, *Trends in the field of trade and environment in the framework of international cooperation*, Distr.GENERAL, TD/B/40(1)/6, 1993, p.24

³³ See EU case on hormone beef against the US, where it was held that there is not enough evidence for the risk to health, and the trade measures were held to be not necessary

precautionary principle so that a country may take preventive action despite scientific ambiguity or lack of evidence³⁴.

The environmental provisions contained in the Agreements have been set out above, but they can only be interpreted when WTO case rulings are taken into account. The rulings on the WTO cases have at times clarified, and at other times confused the provisions set out above.

4. Environmental protection in the WTO dispute settlement

If a WTO member claims that another member country's environmental regulation is in breach of GATT/WTO provisions, it can make its case in front of the dispute settlement body (DSB) of the WTO, which makes binding decisions for the dispute parties. However, if a country is not satisfied with the ruling, it can challenge that in front of the Appellate Body (AB), whose decisions must be accepted unless the WTO General Council composed of the representatives of all WTO members overrules that³⁵. Countries are obliged to comply with the ruling of the DSB or AB respectively – if they chose not to, they must compensate the other party or the complaining victim country will be given the right to impose trade penalties as a retaliation measure.

The effectiveness of the WTO dispute settlement process, and the authority it enjoys among all WTO members, is a clear demonstration of WTO power. Not all critics see this in a positive light as a stronghold against unfair protectionist measures. Quite contrary, some environmentalists argue that this immense power has led to an erosion of national sovereignty and has made it possible for the WTO to weaken national environmental policies³⁶.

³⁴ See for example Kelly (2003), p.134

³⁵ WTO Agreement, Art.IV.2

³⁶ See also Krugman et al (2006), p. 303. This criticism was a response to the first application of the new WTO dispute settlement procedure, the US Reformulated Gasoline case of 1996. The dispute was between the US and Venezuela on new US air pollution standards which discriminated against imported gasoline, and hence were held illegal under WTO law. The US had to change its policies, to the dismay of environmental activists in the US.

To date, there have only been six large dispute cases containing environmental provisions in front of the GATT/WTO³⁷, albeit some of them have had two or three rulings because of appeal. However, these six cases have provided for heated debate among governments and civil activists.

Disputes on **domestic environmental pollution** have been the most contested cases in front of the DSB of the WTO because they trigger issues of “extraterritoriality” and “unilateral measures”.

The core of the GATT/WTO dispute rulings, as well as the SPS and the TBT Agreements is that every country can set its regulations and standards to protect its own environment, life, health and the conservation of its exhaustible resources³⁸. But this principle must be applied on a **Most Favored Nation** (MFN) basis³⁹, must not be arbitrarily or unjustifiably **discriminating**⁴⁰, and not be “more restrictive than **necessary**”⁴¹. Hence the first condition in the legitimacy test of the DSB on trade measures is **non-discrimination** against foreign producers or products.

This is exemplified by the US - Reformulated Gasoline (1996) case in which Venezuela and Brazil complained about the US Clean Air Act 1990. It regulated the sale of reformulated gasoline where there was severe air pollution in the US, but imposed different reformulation standards on domestic and foreign oil refineries, generally setting less strict standards for domestic gasoline than for imported gasoline⁴². This was seen as a **discrimination** against foreign refiners and forbidden, though regulations affecting domestic and foreign producers equally would have been possible.⁴³ For the same reasons, the trade measure in the Thai cigarettes case was held “not necessary” (Article XX (b)) to achieve its objective of human health, because it did not go alongside restriction on domestic production.

³⁷ Overview: US-Tuna/Dolphin (claim by Mexico), US Gasoline/Clean Air Act (claim by Venezuela), EU hormone beef (claim by US), US-Shrimp/Turtle (claim by India, Malaysia, Pakistan, Philippines and Thailand), France/EC Asbestos (claim by Canada), EU genetically modified foods (claim by US, Canada, Argentina), and see Clapp, Dauvergne (2005), pp.138-140

³⁸ SPS Agreement Arts.2, 5 and TBT Agreement Preamble, GATT Article XX (b) and (g)

³⁹ SPS Art. 2.3, TBT Art.2.1

⁴⁰ SPS Art.2.3; TBT Preamble

⁴¹ SPS Art.2.2; TBT Art.2.2 – i.e. another measures should not be available that would ensure the same protection and would be „significantly less restrictive to trade“ – SPS Agreement, Footnote 3

⁴² Krugman, P., Obstfeld, M. (2006), p. 304

⁴³ e.g. Canada’s salmon and herring regulations, 1987. in Neumayer (2000), p.145

Moreover, “a country can do anything to imports or exports that it does to its own products, and it can do anything it considers necessary to its own production processes”⁴⁴, but not to other countries’ production and process methods (PPMs). This issue of PPMs has been frequently dealt with under domestic pollution cases because often measures were taken against a **non-product related PPM**, which is a PPM that leaves no trace in the end product – hence the product is not damaging but its PPM is polluting. In most PPM cases there was no detectable spillover of pollution resulting from the PPM. This is exemplified in the rulings on the cases **US- Tuna/Dolphin I and II**⁴⁵. The US decided to restrict the import of tuna that were caught by a fishing procedure, which resulted in excessive incidental killing of dolphins because schools of tuna have a habit of swimming together with dolphins. US fishing vessels were required not to use this method and the US put up import embargoes against Mexico, Venezuela, Ecuador, Panama and Vanuatu because their vessels still used this fishing method⁴⁶. The panel ruled that non-product related PPM-based measures are prohibited generally. This was based on GATT Article I most favored nation principle, Article III on national treatment and Article XI on elimination of quantitative restrictions⁴⁷.

However, later rulings deviated from this position: the **US-Shrimp/Turtle** cases held that measures against non-product related PPMs are not per se excluded from the scope of exceptions of Article XX. And the last case on appeal, the **US Shrimp Turtle 21.5**, declared for the first time that measures against non-product related PPMs are permissible⁴⁸. It remains the only case like that till now and was part of a ruling that considered turtles as cross-border resources, although it did not put any territorial limit to its ruling on PPMs. Hence, further clarification is expected of the DSB on this, but so far one can conclude that measures against non-product related PPMs are not prohibited per se, though the application is more likely under cross-border pollution cases.

⁴⁴ Srinivasan (1993) *Environment, Economic Development and International Trade*, p.22 cites GATT (1992) p.23

⁴⁵ Highly disputed cases such as Tuna/Dolphin and Shrimp/Turtle have several cases because one party to the dispute appealed against the decision and hence there was a 2nd or 3rd ruling. For example Shrimp Turtle 21.5 is an additional third ruling to the US-Shrimp/Turtle cases I and II.

⁴⁶ Phillips, D. (1993), *Dolphins and GATT*, in *The Case Against „Free Trade“: GATT, NAFTA, and the Globalization of Corporate Power*, 1993 Earth Island Press, pp.134

⁴⁷ Bernasconi, N. (2006), p. 207

⁴⁸ Bernasconi, N. (2006), p. 211

Despite the fact that the incidental killing of dolphins when fishing for tuna, and the incidental killing of turtles when fishing for shrimps seem like the same category of “damage”, the WTO case rulings have not treated these cases as similar. In one case the DSB held dolphins to be part of the domestic environment of Mexico⁴⁹, and accordingly the first case of dispute over turtles and shrimps implied that turtles are part of the domestic environment of the complaining Asian countries. But on appeal, the AB held in 1998⁵⁰ that turtles are cross-border natural resources because they could potentially migrate from Asian to US waters, thus changing the category of the case. The rulings on these cases are interpreted according to their substantive implication for each category of environmental damage, irrespective of the fact that this paper suggests that the death of endangered species cannot be considered a “detectable physical damage” and thus does not consider these cases to be environmental “pollution” in the form of negative externalities. Hence the ruling on the cases is essential in order to set out the WTO law on domestic and cross-border pollution, though ultimately these specific two cases do not fall under the definition of environmental damage as proposed by this paper.

However, this leads to the next aspect of the test of legitimacy of trade measures applied by the DSB: the issue of **extraterritoriality**. The definition of extraterritoriality is “beyond the geographic limits of a particular jurisdiction”⁵¹, which is the core issue of trade measures used against **domestic pollution** outside one’s own territory. The **US-Tuna/Dolphin I** explicitly rejected the idea that Article XX could apply to natural resources outside the jurisdiction⁵² of the party taking the measure. On appeal, the ruling softened, and the AB did not restrict the application of Article XX to the territory of any country. But it still held that the measures taken by the US were illegal⁵³ because if Article XX was to permit members to force others to change their policies, it could be argued that “the balance of rights and obligations among contracting parties, in particular the right of access to markets, would be seriously impaired”⁵⁴. Hence it did not put a territorial limit on natural resources, but it held that no country shall be

⁴⁹ The dolphins were killed in common fishing zones, so outside the 200-mile exclusive jurisdiction zone of either country

⁵⁰ Report of the Appellate Body in *US-Import Prohibitions of Certain Shrimp and Shrimp Products (Shrimp-Turtle)*, WT/DS58/ab/R, adopted 6th November 1998

⁵¹ Black’s Law Dictionary (2004)

⁵² Neumayer (2000), p.147

⁵³ GATT (1994) *US-Tuna/Dolphin I*, Panel report, paragraphs 5.27-5.32

⁵⁴ Macmillan (2001), p.75

allowed interfere with the jurisdiction of another country: every WTO member shall construe its own conservation policies⁵⁵.

The WTO rules on **extraterritorial effect** and unilateral measures⁵⁶ are therefore not straightforward. What seems evident from the wording of the rulings is that the DSB addressed developing countries' fear of more powerful countries interfering with their policies, also called "eco-imperialism". Even when no territorial limit was set to natural resources, the autonomy of individual countries was still upheld by the DSB and trade measures to target domestic environmental pollution were ruled out. This is why NGOs and civil activists are particularly disappointed with the WTO and have accused it of having a "trade bias" and of jeopardizing public health and sustainability for the objectives of international trade.⁵⁷

The next condition applied by the DSB in WTO case rulings is the **necessity requirement**. The US Dolphin/Tuna panel held that the US trade measures were not necessary because they had not exhaustively investigated available alternatives such as an international cooperation agreement or even a differently drafted import restriction⁵⁸. Generally, the necessity requirement demands that there be no alternative measure that could be more consistent with GATT/WTO laws. The least trade distorting measure must be found, and alternatives must be exhaustively investigated, but at the same time domestic costs and difficulties of implementation of those alternative measures must be taken into account⁵⁹.

In conclusion on domestic pollution cases, it can be said that under current rulings extraterritorial measures⁶⁰ are not per se excluded anymore, but the DSB of the WTO has applied strict conditions. These included non-discrimination, respect for another country's autonomy over its own territory, and a broad application of the necessity

⁵⁵ GATT (1994) US – Tuna/Dolphin I, Panel report, paragraph 5.32

⁵⁶ The question whether „unilateral“ measures are legal corresponds to the extraterritoriality issue in the DSB rulings. From a legal perspective, unilateralism is very important, but for the purposes of this thesis, the legality of unilateral measures is not discussed in detail because it is not relevant for the economic analysis, as opposed to extraterritoriality. The question of unilaterality will be addressed also under chapter 5, when dangers of trade measures are discussed.

⁵⁷ This is evident from NGOs such as Friends of the Earth, 1999, *WTO scorecard – WTO and free trade vs. environment and public health:4:0*, at <http://www.foe.org/international/trade/wto/wto.htm>

⁵⁸ GATT (1994), US – Tuna/Dolphin I, Panel report, paragraph 5.28

⁵⁹ Part of the ruling on EC-Asbestos, see Bernasconi, N. (2006), p. 150

⁶⁰ as well as unilateral measures and non-product related PPM-based measures

requirement which asks countries to seek negotiation, investigate alternatives and take into account the special circumstances in individual countries. All these conditions must be met if one WTO member seeks to apply trade measures against another WTO member for its domestic environmental pollution.

<i>Pollution Type</i>	Domestic	Cross-border	Global
<i>Trade measure</i>	Trade inducement, supporting trade provision	Direct trade intervention, supporting trade provision	Direct trade intervention, supporting trade provision
<i>Aimed at Process and Production Methods (PPMs)</i>	Non-product related PPMs not permissible, hampered but not prevented by extraterritoriality	Non-product related PPMs permissible if conditions of necessity, non-discrimination and prevention of unilateral imposition are complied with; product related PPMs permissible	Most likely similar to cross-border in all individual cases; otherwise dependent on relevant Multilateral Environmental Agreement (MEA)

In case of **cross-border pollution**, there is by far less controversy and less dispute settlement in front of the WTO. In most cases, an agreement is reached between countries without evoking the WTO dispute settlement. Albeit this does not hold true for cases such as US-Shrimp/Turtle where the categorization of the case is already a matter of dispute and the claimants did not agree with the “cross-border natural resource” definition of the AB.

First of all, the principle of **non-discrimination** that was part of the discussion under domestic pollution applies equally to cross-border pollution. It is a principle on all trade measures within the WTO. Interestingly, the scope of this principle was widened under the US-Shrimp/Turtle II case: the US measures were held acceptable under the territoriality issue, but they were held to be **unjustifiably and arbitrarily discriminating**: the US held negotiations with some countries but not with others, and the measures applied were too rigid leaving no flexibility for the claimants to implement their own turtle protection schemes. The last argument similarly to the necessity requirement can be interpreted as a safeguard for developing countries against the domination of stronger WTO members.

In the US-Shrimp/Turtle case 1998, the dispute was about a US import ban on shrimps from countries that the US had not certified as fishing with harvesting methods that saved sea turtles from being killed, using Turtle Excluder Devices (TEDs). Sea turtles have been recognized as an endangered species in the Convention on International Trade in Endangered Species (CITES), and TEDs were made compulsory in the US in 1990. India, Malaysia, Pakistan, Philippines and Thailand complained to the DSB, and the first panel concluded that the US measure was inconsistent with GATT rules because it was discriminating arbitrarily and unjustifiably, and “implied a **unilateral imposition** of US environmental legislation on other countries”⁶¹. Under the US regulation, foreign producers were forced to adopt the same shrimp fishing methods as the US (TEDs) and no alternatives to TEDs were accepted. The panel held that the US did not consider the different conditions of the foreign shrimp producers and did not take full account of their national conservation programs; secondly the US had negotiated with various countries in Latin America and the Caribbean and had offered technology transfer to help them employ TEDs as well as a three year phase-in but did not make the same offers or negotiations with the claimants –this constituted an unjustifiable discrimination⁶².

After the AB decision, the US did not remove the import prohibition but attempted to bring it into compliance with the ruling. Malaysia complained about this in 2000, holding that the US was not complying with the Dispute Settlement Understanding (DSU)⁶³. The panel called to decide on this case, **US – Shrimp/Turtle 21.5 (2001)**, held that the US had acted consistently with the former panel ruling because it had engaged in negotiations with the complaining countries, had tried to reach an international agreement, and had revised its guidelines of the import ban to make it more flexible. Even though no international agreement was actually reached, US were held to have complied with the US – Shrimp/Turtle I ruling by engaging in ongoing and good faith negotiation efforts⁶⁴. It also held the flexibility introduced by the US to be sufficient because the law was changed so that not exactly the same technique was expected but a program comparable in effectiveness. Malaysia complained about the unilateral aspect of this issue but the AB held that unilateral measures could to some

⁶¹ See Liebig (1999), p.84

⁶² GATT (1998), US – Shrimp/Turtle I, AB report, paragraphs 172-176

⁶³ Bernasconi, N. (2006), p. 127

⁶⁴ US – Shrimp Turtle 21.5 (2001), paragraph 133

degree fall under Article XX⁶⁵. Hence when the DSB is convinced that the measures taken are not discriminatory and provide for some flexibility and negotiation efforts, it seems willing to allow trade measures for environmental purposes – even in this case, where the issue at hand was a non-product related PPM and the cross-border damage is highly disputed, but in effect the US was eventually allowed to continue with its trade measures.

Much clearer than this are cases of **product-related PPMs**, which are normally the core of cross-border pollution dispute cases. If the damage is due to a “dirty” product, i.e. a product that is itself polluting, then the country may clearly impose trade measures in response⁶⁶ – this is provided for under GATT Article XX, and most importantly under the SPS and TBT Agreements which aim to prevent the import of polluting products. The damage is either detectable in the end product, like pesticides, or not detectable but affecting the quality of the product like non-compliance with food safety measures and sanitary standards. Hence legislation against the import of polluting products is consistent with WTO rules, as long as it is applied on a Most Favored Nation (MFN) basis⁶⁷, is **not arbitrarily or unjustifiably discriminating**⁶⁸, and is not “more restrictive than **necessary**”⁶⁹, which also includes the need for some scientific evidence for the claim. An example of a successful case in this respect is EC-Asbestos 2001⁷⁰, whereas in the case of EU hormone beef, it was held against the EU that there was not sufficient scientific evidence on the harm caused by hormone beef and therefore the trade measures were held unnecessary.

What concerns **non-product related PPMs**, i.e. those leaving no trace in the end product, the discussion under domestic pollution applies equally here. The conclusion arrived at is that non-product related PPMs can be consistent with WTO law – even if that is somewhat unclear under domestic pollution, it seems to be settled for cross-border pollution due to the categorization of Shrimp/Turtle as such by the AB.

⁶⁵ Bernasconi, N. (2006), p. 128

⁶⁶ See also the discussion on „likeness“ above

⁶⁷ SPS Art. 2.3, TBT Art.2.1

⁶⁸ SPS Art.2.3; TBT Preamble

⁶⁹ SPS Art.2.2; TBT Art.2.2 – i.e. another measures should not be available that would ensure the same protection and would be „significantly less restrictive to trade“ – SPS Agreement, Footnote 3

⁷⁰ EC-Asbestos 2001 and Bernasconi, N. (2006), p.65 and p. 204

But there has not been any case of physical, detectable cross-border pollution due to PPMs in front of the WTO yet, i.e. no case that would fall under the definition of cross-border pollution in this thesis such as acid rain. To solve this question, one needs to look outside GATT/WTO law: Transnational pollution can involve a violation of a norm in customary international law, as was held in the Trail Smelter arbitration (1937-1941) between the U.S. and Canada, where the tribunal held that one country may not allow its territory to be used to cause harm to the territory of another state⁷¹. In this case, a smelter in Canada, near the US border, emitted sulphur dioxide fumes affecting the territory of the US. The case did not clarify how serious the pollution must be in order to give rise to a claim under customary international law. Considering the lack of WTO dispute settlement cases on this issue, one must assume that direct negotiations are reverted to or international agreements, such as the Basel protocol on the movement of hazardous wastes, or the International Convention on Civil Liability for Oil Pollution 1969, regulating liabilities for shipping accidents resulting in oil pollution⁷².

Hence, in conclusion the conditions applied to cross-border pollution are similar to those of domestic pollution in that there should be no discrimination, the measures must be necessary and hinder trade as little as possible, and alternatives must be explored. Further, measures must be flexible for other countries' conditions, negotiations must be held, and the measures should be limited to specific products and be subject to revision⁷³. Hence unilateral and extraterritorial trade measures can be legitimate⁷⁴ if they comply with these conditions of necessity and safeguard against the dominance of powerful countries. Moreover, in cases of cross-border pollution due to dirty products, the safeguards under SPS and TBT Agreements provide for the possibility of trade measures. And finally, it seems internationally recognized that polluting a neighboring country with a particular production process like acid rain is illegal, though disputes of this kind are rare and countries seem to be willing to revert to international agreements or bilateral negotiations rather than WTO disputes.

The difficulty in assessing the legal framework for **global environmental pollution** is the lack of any WTO trade dispute on this matter. No WTO panel has ever ruled

⁷¹ Baughen, S. (2007), p. 323

⁷² Baughen, S. (2007), p. 329

⁷³ Langhammer (2000), *On the Nexus between Trade and Environment and on Greening the WTO*, p.259

⁷⁴ US- Shrimp/Turtle I, AB report, paragraph 121 (1998)

explicitly on the case of global pollution – it is only possible to draw conclusions from WTO rulings on domestic and cross-border pollution cases.

Despite the fact that Shrimp/Turtle was said to be a cross-border case in the panel ruling, its principles could potentially hold for global pollution cases too. The WTO panel held living species to fall under “exhaustible natural resources”, and one could infer that this could be extended to global natural resources, although it is unclear how the WTO dispute panels would draw the lines.

However, the most appropriate means to tackle global environmental problems is by international cooperation. **Multilateral Environmental Agreements (MEAs)** can amount to an effective measure, particularly if they have their own enforcement mechanism such as the **Montreal Protocol**, but their use of trade measures against non-members or “free-riders” is disputed. There has not yet been a conflict of that kind at the WTO dispute settlement panel, but critics suggest that MEA enforcement on non-members would be unlawful under the WTO⁷⁵. The relationship of MEA provisions and WTO rules was negotiated on in the CTE of the Doha Round as mentioned above, and will hopefully continue when the Doha round negotiations are resumed.

The most prominent question in global pollution cases is whether the trade measures employed in climate change treaties are legitimate in the WTO framework. So for example, would border measures aimed at offsetting the international competitive effects of domestic carbon emission reduction measures such as carbon taxes be upheld by the WTO dispute settlement body? Recent studies on climate change policies and border adjustments to offset carbon leakage have argued that these could be compatible with WTO law if the WTO principles as set out above are obeyed⁷⁶. Albeit the distinction between products and PPMs will be a key determinant of the question, and consequently, if products with carbon intensive PPM and those with clean PPM are considered “like” products, then border adjustments taxes imposed on imports from non-signatory countries could be difficult to uphold in front of the WTO⁷⁷. However, if the WTO dispute settlement body adhered to principles of negative externalities, then global pollution cases should also be eligible for trade measures as long as principles of

⁷⁵ e.g. Bhagwati (2000), *On Thinking Clearly about the Linkage between Trade and the Environment*, p.246-248

⁷⁶ E.g. Mehling, Meyer-Ohlendorf and Czarnecki (2008), in *Competitive distortions and leakage in a world of different carbon prices*

⁷⁷ Zhang (1998), p.231

non-discrimination, necessity etc are obeyed. Despite its potential legality, these trade measures must be employed by a large number of states to be effective at all. Barrett (1999) has suggested that the conditions for the legal use of trade sanctions to deter free riders in international agreements are quite restrictive, the number of cases in which the trade sanctions employed can be “effective and credible is probably very small”⁷⁸. The easiest trade measure in this realm is the direct trade intervention, which can already be used by means of product standards that are not discriminating between domestic and foreign products. For example, fuel efficiency requirements for vehicles might be employed and non-complying products might be restricted from import⁷⁹.

When drawing the comparison to the effective trade measures used under the Montreal Protocol, one can infer that trade measures between signatories to an MEA can be effective if they are accompanied by finance and technology transfer such as in the Montreal Protocol, but its imposition on non-signatories to climate treaties might under current circumstances be difficult to uphold in the WTO. However, if the international community agrees on trade measures in the post-Kyoto regime, accompanied by aid transfers to developing countries, then these could work effectively in the next climate deal⁸⁰, though any agreement in this respect is very difficult to achieve due to ethical considerations of historical and present responsibilities, equitable cost-sharing and equal chances for all.

5. Conclusions

Hence the conditions set up by the WTO dispute settlement body on the use of trade measures in environmental pollution cases include the principles of non-discrimination, necessity and finally a variety of conditions that all aim at providing safeguards to developing countries or small economies against protectionist measures of stronger WTO members.

Albeit these conditions have been fairly successful in preventing some cases of environmental measures being used for protectionist purposes, this paper suggests the

⁷⁸ Barrett (1999), p.169

⁷⁹ Brewer (2004), p.9

⁸⁰ Zhang (2008), p. 9

clear division between domestic, cross-border and global pollution cases based on whether negative externalities are detectable on the territory of the country taking trade measures. When no such physical harm is constituted, such as in cases of domestic pollution or psychological and ethical damage, then other means should be employed instead of trade measures. Diplomatic pressure could be used, consumers could be informed and aid and technology transfer could be employed to help raise the environmental standards in other countries – for example, the US could have provided the Asian countries with turtle safe nets instead of imposing a trade measure. These restrictions are necessary because trade measures are a powerful tool that can easily be misused for protectionist purposes.

Secondly, it should be asked if the trade measures proposed in each pollution case can be effective, i.e. whether they are suitable to achieve the aims of environmental protection. This condition is tough because trade measures that are aimed at polluting PPMs are always merely an indirect tool and its effectiveness is dependent on the size of the market that imposed the trade measure in comparison with the importing country's market size and alternative consumer markets. The only clear case of effectiveness is direct trade intervention, i.e. when “dirty” products are exempted from importation. That is obviously only the case in cross-border or global pollution and hence it also fulfils the condition of negative externalities on the territory of the country that takes the trade measure. But there is up to date no evidence of a successful use of trade measures as incentive to change national environment or animal safety standards – not without the use of positive inducements such as financial aid. Besides these cases are characterized by severe power imbalance because they can only be employed by large economies against smaller economies to be effective.

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