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Trade-related Environmental Measures and GATT: the Conflict between Trade Libralization and Environmental Protection

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TRADE-RELATED ENVIRONMENTAL MEASURES AND GATT: THE CONFLICT BETWEEN TRADE LIBERALIZATION AND ENVIRONMENTAL PROTECTION

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(Under the Direction of Peter J. Spiro)

ABSTRACT

GATT/WTO firmly establishes a global free trade regime, which is dedicated to free and freer global trade, to the benefit of all nations. However, trade liberalization poses great risk to the environment, which has been in a process of deterioration. Thus, many countries, especially developed ones, have begun to enact TREMs, with an eye to force, or induce other countries, especially developing ones, to strengthen their commitment to environmental protection. Developing countries feel they are targeted by developed ones *mala fide*. Thus, disputes and debates arise. This thesis is an attempted effort made to point out that TREMs reflect a deep and inevitable trade-environment conflict, to solve which the ultimate choice is environmental protection cost internalization. This is especially true for developing countries, considering GATT/WTO DSB and Appellate Body's shifted attitude, which is given special attention in this thesis, tilting toward recognizing TREMs enacted out of genuine environmental concerns.

INDEX WORDS: TREMs, Trade-environment conflict, Environmental cost internalization, Trade liberalization, Environmental protection, GATT/WTO

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DEDICATION

TO MY DEAR PARENTS, ALMA MATER, AND LAW

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TABLE OF CONTENTS

Page

CHAPTER I

INTRODUCTION

A. Purpose

Greater liberalization of international trade in recent years notwithstanding, the multilateral free trade regime, which has been well established by WTO, faces an impelling challenge: trade-related environmental measures (TREMs), which are unilateral trade measures adopted by nations to protect the environment.[1] To date, as one of the most controversial issues in the multifaceted relationship between international trade and global environment,[2] TREMs have gained increased attention from the global community, especially developing nations, since generally speaking, the latter is much more often targeted by TREMs.[3] However, with respect to the nature and other issues arising out of or related to TREMs, there exists a vast deal of misconceiving among developing nations. It is one of the main purposes of this thesis to dispel this kind of misapprehension.

With the utilization of TREMs coming to the forefront of international legal policy development, TREMs have been challenged, argued and considered in a lot of forums, including the General Agreement on Tariffs and Trade (GATT) Council and Secretariat.[4] In recent years, quite a few actions have been brought against the use of TREMs before the GATT/WTO Dispute

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[1] So TREMs do not include measures adopted under international agreements like TRIPS. It should be noted that TREMs are not an abbreviation of an international agreement and that in fact there is no such international agreement which focuses on the relationship of trade and environment administered under the WTO regime.

[2] Jeffrey L. Dunoff, *Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?* 49 WASH & LEE L. REV. 1407, 1407-08 (1992) [hereinafter Jeffrey L. Dunoff, *Reconciling*].

[3] It is especially true for those developing countries whose national economics deeply rely on the exports. For example, China is an export-oriented country and the TREMs adopted by developed countries greatly affect the merchandise exports of China.

Settlement Body and TREMs have generally been justified by developed countries by resorting to Article XX of GATT, which outlines the general exceptions to the GATT free trade rules, especially to the principles referred to by Article I and III. Through a detailed analysis of such actions, it has been found out that, although for fifty years no country has succeeded in invoking Article XX as a justification for the adoption of TREMs, [5] WTO has been gradually changing its attitude towards TREMs and attempts to strike a balance between the right of a WTO member state to use TREMs in pursuit of genuine environmental goals and that of other WTO member nations to a liberalized trading system.[6]

While compared with the approach of environmental protection cost internalization, TREMs are just the next better method to resolve the intractable trade-environment conflict, the birth and development of TREMs just force developing countries to cognize the increasingly urgent appeal for environmental protection and compel them to take positive actions to secure reasonable concession and cooperation from the developed countries instead of stemming the torrent of the global green tide stubbornly.

B. Structure

The rest of this thesis is divided into five chapters. Chapter II summarizes definitions and classifications of TREMs proposed and used in contemporary treatises. Then it goes on to give a summary of the comprehension of TREMs by developing nations, which often fail to maintain rationality and objectivity in regard to TREMs and take it for granted that TREMs are just enacted by developed countries out of consideration for their own interests only with the aim to contain exporting efforts of developing countries. In the eyes of most developing nations,

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[4] Atsuko Okubo, *Environmental Labeling Programs and the GATT/WTO Regime*, 11 GEO. INT'L ENVTL. L. REV. 599, 599 (1999).
[5] Benjamin Simmons, *In Search of Balance: An Analysis of the WTO Shrimp/Turtle Appellate Body Report*, 24 COLUM. J. ENVTL. L. 413, 419 (1999).

TREMs are mere non-tariff trade barriers under the cloak of environment protection. [7] This attitude in part can be attributed to the sunk cost, namely the negative influence of colonialism practiced by certain "imperialist" developed countries. The memory of this part of history is still vivid in many developing countries.

Chapter III first points out that the origination of TREMs is rooted in the backdrop of extreme degradation of the global environment and the consequent arousal of environmental awareness throughout the world. Then it continues to argue that the very nature of TREMs is the stark conflict between trade and environment.

Chapter IV chronicles and reviews several leading GATT/WTO decisions involving TREMs as well as the trade-environment conflict. In doing so, it focuses mainly on the 1998 Shrimp/Turtle case, for it gives birth to four vitally important innovations and thus marks a great turning point in the history of GATT/WTO.

An effort is made in Chapter V to seek out a possible approach to the problem of trade-environment conflict. From an economic perspective, it firstly analyses the traditional comparative advantage theory and defects therein. Secondly it endeavors to illuminate that the very root drive force behind TREMs is differing degrees of internalization of the environmental protection cost. Thirdly, it identifies four reasons why developing countries should directly face the reality and attempt to internalize the cost of environmental protection in the wake of the 1998 Shrimp/Turtle case. It is shown that, though it does raise cost of production, internalization of environmental protection cost will not necessarily cost products of developing countries their comparative advantages. Therefore, to avoid the vicious circle of poverty and degradation of the

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[6] *Id*. at 413.

[7] For example, in China, a scholar maintained that the adopters of TREMs are lacking in sincerity to achieve international cooperation on environment protection. *See* Yufang Wang, *WTO Xieyi Lüse Tiaokuan he Lüse Maoyi*

environment, developing countries should assume their own responsibilities to protect environment as well as seek out cooperation and support from developed countries to improve their own and even the global environment.

Then comes the Chapter VI, the conclusion of this thesis: because the planet is shared by everyone, including current and future generation of both developed and developing nations,[8] trade liberalization should be used to maximize environmental objectives and everyone should cooperate on a global level to achieve this goal.[9]

Bilei Wenti yu Duice [*WTO Green Trade Article and Ways to Respond to Green Trade Barriers*], *in* GUOJI JINGJIFA LUNWEN ZHUANJI [SELECTED WORKS ON INTERNATIONAL ECONOMIC LAW] 433 (Wei Zhao ed., 2000).

[8] Richard Skeen, *Will the WTO Turn Green? The Implications of Injecting Environmental Issues into the Multilateral Trading System*, 17 GEO. INT'L ENVTL. L. REV. 161, 198-99 (2004).

[9] The Executive Director of the United Nations Environment Programme, Klaus Toepfer, also argued that "the need to ensure that both trade and environmental policies are mutually supportive is more pressing today than ever before…Thus, further trade liberalization should be viewed not as an aim in itself, but as another tool by which we can achieve sustainable development." *See* UN: *Promoting Linkages between Environment and Trade Policy*, M2 Presswire, Nov. 29, 1999, *quoted in* Stephanie Carlsten, *infra* note, at 48.

CHAPTER II

TREMS, AND TREMS IN THE EYES OF DEVELOPING COUNTRIES

A. The Conception of TREMs

In spite of the fact that more countries than before begin to use trade measures or tools for environmental purposes, there still lacks a common framework for defining and categorizing such measures or tools. As far as the appellations given to them are concerned, one commentator called them "Environmental Trade Measures," [10] another gave the name "unilateral environmental trade measures," [11] and others visually designated them as "Green Trade Barrier."[12] Nevertheless, it seems that the "Trade-Related Environmental Measures" is the most cogent expression.[13] And it is also the appellation that is employed by this thesis.

Then what are TREMs? Or how to define TREMs? In this regard, there exist several opinions too. However, these opinions are just as similar to one another as make no difference.[14]

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[10] Steve Charnovitz, *Trade and the Environment: The Environment vs. Trade Rules: Defogging the Debate*, 23 ENVTL. L. 475, 490 (1992).

[11] Atsuko Okubo, *supra* note 4, at 599.

[12] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1408. However, it seems that since Dunoff, no one has adopted this appellation, i.e. Green Trade Barrier. And in fact, there is an implied meaning in this appellation that such measures or tools are a kind of trade barrier. Maybe just due to the lack of a superficially indifferent stance, this appellation was not welcomed by most scholars.

[13] Because such measures generally focus more on their environmental ends than on their means of restricting trade. By the way, it is Paul Demaret that used the expression of "Trade-Related Environmental Measures" for the first time and he explained that "the expression was coined so as to allow the use of the abbreviation TREMs, built on the pattern of TRIPS and TRIMs." *See* Paul Demaret, *TREMs, Multilateralism, Unilateralism and the GATT*, *in* 1 TRADE & THE ENVIRONMENT: THE SEARCH FOR BALANCE 52, 52 (James Cameron, et al. ed., 3rd prtg. 1997). And Lorenzo Schiano di Pepe also uses this name. *See* Lorenzo Schiano di Pepe, *The World Trade Organization and the Protection of the Natural Environment: Recent Trends in the Interpretation of G.A.T.T. Article XX (b) and (g)*, 10 TRANSNAT'L L. & CONTEMP. PROBS. 271, 277 (2000).

[14] However, in China, totally different definition was bestowed on TREMs. They were considered as one kind of protectionism or hindrance to market access in the name of protecting the exhaustible resources, environment and human health; and their purpose is to prevent the foreign products especially those from developing countries from entering the domestic market or limit the importation of above-mentioned products by means of enacting stringent environmental standards. *See* Lixin Huang, *Lüse Bilei ji Woguo de Yingdui Celüe* [*Green Trade Barriers and Choices for Our Country*], WAIXIANG JINGJI [JOURNAL ON EXPORT-ORIENTED ECONOMY] (2000), at 254, *quoted in*

Generally speaking, TREMs are regarded as measures that primarily base their justification upon the protection of the environment, but take the form of trade instruments.[15]

Moreover, mindful of the correlation between TREMs and multilateral environmental agreements (MEAs), someone alleged that although it is hazy sometimes, distinction should still be made between TREMs resulting from MEAs and those which are unilaterally enacted by some GATT member states.[16] Further, unilateral measures can fall into two different types: TREMs aimed at protecting environmental interests located within the enacting state's territorial or personal jurisdiction and TREMs aimed at protecting environmental interests located outside the enacting state's territorial or personal jurisdiction.[17]

For the purposes of this thesis, TREMs means unilateral trade measures adopted by countries to protect the environment no matter where the environmental interests locate.[18]

B. The Taxonomy of TREMs

There are several types of TREMs available to a country, which include import prohibitions, export prohibitions, product standards, process standards, subsidies, taxes and tariffs, sanctions, conditionality and eco-labeling.[19]

Jian Wang & Xiaomei Hong, *Guoji Maoyi zhong de Lüse Bilei jiqi Falü Duice* [*Green Trade Barriers in International Trade and Choices in Law*], DONGBEI DAXUE XUEBAO (SHEHUI KEXUE BAN) [NORTHEASTERN UNIVERSITY JOURNAL (ON SOCIAL SCIENCE)] (October 2004), at 254; Xiaoqin Zhu, *WTO yu Lüse Bilei: Ruogan Falü Wenti Fenxi* [*WTO and Green Trade Barriers: Analysis of Several Related Legal Issues*], 4 XIAMEN DAXUE XUEBAO (ZHESHE BAN) [XIAMEN UNIVERSITY JOURNAL (ON PHILOSOPHY AND SOCIAL SCIENCE)] (2001), at 83; *and* Yanfang Li, *Lüse Maoyi Bilei yu Qingjie Shengchan Lifa* [*Green Trade Barriers and Clean Production Legislation*], 6 FAXUE LUNTAN [FORUM ON SCIENCE OF LAW] (2001), at 18.

[15] Paul Demaret, *supra* note 13. Besides, Professor Jeffrey L. Dunoff thought that "the terms 'trade barrier' and 'green trade barrier' refer to import or export restrictions, taxes on products or means of production, and other restrictions on the free flow of goods across national borders designed to serve environmental purposes". *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1408 n.5. And someone just tersely described them as "trade tools generally used for the protection of the environment by states." *See* VED P. NANDA & GEORGE PRING, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY FOR THE 21ST CENTURY 396 (2003).

[16] *See* Paul Demaret, *supra* note 13. *See also* VED P. NANDA & GEORGE PRING, *supra* note 15, at 397. In the article of Paul Demaret, he also elaborates on the aspects of TREMs which result from environmental conventions, including their main features, their status under the GATT and their types etc. *See* Paul Demaret, *id*. at 53-59.

[17] *See* Paul Demaret, *supra* note 13, at 60-61.

[18] So TREMs adopted according to MEAs are not within the scope of this thesis.

Import prohibitions impose restrictions on the importation of certain products, while export prohibitions restrict the exportation of certain products.[20] Product standards are regulations or measures on domestic sales or transportation that apply to goods *pari passu* in international trade. [21] In contrast with product standards, process standards are regulations or measures on domestic production as well as foreign production,[22] which relate to the method by which a product is manufactured, processed or produced (also referred to as "processing and production methods").[23]

Subsidies are grants or benefits to domestic production which may be utilized to encourage conservation or to promote new environmental technologies.[24]

When as a type of TREMs, taxes and tariffs mean levies on trade for environmental goals.[25] And sanctions penalize other nations for environmentally harmful actions. As a matter of fact, very few countries have authorized such environmental trade sanctions in their laws.[26]

Conditionality is the extension or withholding of preferential treatment to a less developed country depending on the environmental policies of that country.[27]

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[19] Steve Charnovitz, *supra* note 10, at 490 and James Cameron & Karen Campbell, *Challenging The Boundaries of The DSU through Trade and Environment Disputes*, *in* DISPUTE RESOLUTION IN THE WORLD TRADE ORGANISATION 204, 220 (James Cameron & Karen Campbell ed., 1998).

[20] Both of them are inconsistent with Article XI of GATT because they are prohibitions other than duties, taxes, or other charges. *See* Steve Charnovitz, *supra* note.

[21] *Id*.

[22] *Id*. at 491.

[23] Atsuko Okubo, *supra* note 4, at 609.

[24] Steve Charnovitz, *supra* note 10, at 491. But just as the author pointed out, subsidies are domestic measures rather than trade measures technically. However, subsidies can distort trade and therefore draw attention from the international trading community. *See id*. n.65.

[25] For example, the Superfund Revenue Act of 1986 imposed a tax on certain imported substances, such as styrene, that include chemicals which are taxed under federal law. *See id*. at 491.

[26] But there is still an example: the U.S. Trade Expansion Act of 1962 authorizing the President to raise duties on any fish from countries that refuse to participate in fishery conservation negotiations in good faith. *See id*. at 492.

[27] Even though the GATT does permit preferential tariffs for less developed countries, such treatment is supposed to be nonreciprocal and it is unclear what stance the GATT Council would take if any Generalized System of Preferences (GSP) program began to require environmental conditionality. *See id*.

Eco-labeling is defined by the use of labels to inform consumers that a particular product is environmentally friendlier than other products in the same category.[28] Due to the official hue and governmental character attached to TREMs, eco-labeling, as a kind of TREMs, usually means mandatory government-sponsored schemes.[29]

Among the nine types of TREMs which are enumerated above, product standards are least controversial, for as long as they meet the national treatment requirement of Article III and the most favored nation requirement of Article I,[30] there is not much room to challenge them. By contrast, process standards give rise to a lot of controversies, since they on the surface run afoul of the "like products like treatment" principle firmly established under GATT/WTO. Import restrictions, as the most typical manifestation of TREMs, are also very controversial, and they are more often challenged, since they directly restrict developing countries' exporting efforts. We will encounter these two types of TREMs in the GATT/WTO TREM cases discussed in Chapter IV below.

C. TREMs in the Eyes of Developing Countries

Just as some scholars have keenly observed, "most developing countries do not want environmental issues to be part of the WTO discussions."[31] The deep concern which prevails among developing countries is that developed countries may attempt to force onto them rules or measures which delay their economic development and work to the unfair advantages of

[28] Atsuko Okubo, *supra* note 4, at 601. Okubo analyzes the compatibility of the three schemes, especially the first scheme, with the GATT/WTO regime at length. *See id*. at 610-634.
[29] In practice, eco-labeling schemes can be divided by three main categories: mandatory government-sponsored schemes, voluntary government-sponsored schemes and voluntary private-sponsored schemes. *See id*. at 603.
[30] Steve Charnovitz, *supra* note 10, at 490.
[31] Stephanie Carlsten, *Trade and The Environment: The World Trade Organization Millennium Conference in Seattle: The WTO Recognizes a Relationship Between Trade and the Environment and Its Effect on Developing Countries*, 1999 COLO. J. INT'L ENVTL. L. Y.B. 33, 43-44 (1999).

developed countries.[32] Out of such a concern, developing countries have contended that, in a word, TREMs are "thinly disguised non-tariff trade barriers" in violation of GATT/WTO.[33] To support such a contention, they have offered several arguments.

In the first place, developing countries argue that they are particularly vulnerable to the possible discriminatory trade impacts of TREMs, as they frequently lack the necessary resources and technique to meet the stringent environmental requirements.[34]

In the next place, by reason of the unilateral nature of TREMs and the different standards adopted by the countries based on their respective national conditions, TREMs may to a great extent increase costs for producers in developing countries if they have to meet a variety of requirements in different markets, and inevitably impact adversely the competitive advantages of small-scale producers.[35]

In the last place, TREMs used by developed countries are often devoid of transparency. Foreign producers will run risk of denial of access to the information necessary to comply with those measures. [36] Therefore, developing countries leap to a conclusion that developed countries enact TREMs as surrogates or subterfuges for protectionist motivated rules to keep out competition from products of developing countries and to protect their own national industries.[37]

A premise implied in the above-mentioned arguments is that no matter what measures developed countries enact, as long as such measures will put developing countries at a disadvantaged position, then they do aim at developing countries *mala fide* and developing countries should object to them with a firm hand without further consideration of the rationality

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[32] John H. Jackson, *Greening the GATT: Trade Rules and Environmental Policy*, *in* 1 TRADE & THE ENVIRONMENT: THE SEARCH FOR BALANCE 39, 50 (James Cameron et al. ed., 3rd prtg. 1997).
[33] Atsuko Okubo, *supra* note 4, at 600.
[34] *Id*. at 610. Though the argument is aiming at eco-labeling, it can be expanded to the variety of TREMs in the opinion of this author.
[35] *Id*. at 639.
[36] *Id*. at 642

of such measures and the authenticity of the purported viciousness. True, from a historical view, some "imperialist" developed countries shall answer, at least partly, for the underdeveloped status of the economy and technology of some developing countries. Nevertheless, it does not mean that to contain the development of developing countries is the first concern whatever affairs developed countries are dealing with, not to say the only concern. In addition, the negative effects wreaked by colonialism have, from an economic perspective, become sunk costs which, just like spilled milk, do not deserve any tears. Most important of all, it cannot be well proved that the springboard of enacting TREMs is to protect domestic market rather than the environment, local or international,[38] under the circumstances that environmental protection is a true and genuine concern now throughout the world.[39]

Another denouncement of TREMs is that, when less and less room is left for the traditional tariff and non-tariff barriers, developed countries merely enact more and more TREMs in view of their own national interests and use them as a substitute tool to protect domestic industry and increase domestic exportation. The trade-environment issue, as someone maintains, tightly relates to the economic disparity and interest conflict between developing and developed countries.[40] Such comments, while profound and persuasive on the surface, are untenable because as a matter of fact most issues among the countries may boil down to a question of

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[37] John H. Jackson, *supra* note 32, at 44.
[38] As it is discussed *infra*, it cannot be denied that the global environment has deteriorated to such an extent that something should be done to improve it. *See* Chapter IV below, especial the part immediately before Section A.
[39] *See* Chapter III (A) below.
[40] Tianbao Qin, *Huanbao Shidai Zhongguo Waimao de Falü Fenxi* [*China's Foreign Trade in the Era of Environmental Protection: Certain Legal Issues*], 4 NINGXIA SHEHUI KEXUE [NINGXIA SOCIAL SCIENCE JOURNAL] (1999), at 28.

interest. [41] So it seems that developing countries cannot be justified in their hostility toward TREMs.

[41] Just like developing countries, developed countries also can find enough reasons to condemn that the former fights against the TREMs just in the consideration of safeguarding the domestic industry with low environmental attached value, therefore shirk responsibility to the international environment problems.

CHAPTER III

CLARIFICATION: THE BACKGROUND AND NATURE OF TREMS

But if the true nature of TREMs cannot be distilled from what developing countries are thinking of, then what is the true nature of TREMs? To answer this question, this Chapter tries to make a short historical review of background in which TREMs have come into being. Then, it goes on to point out that TREMs are derived from the trade-environment conflict.

A. Background: Degradation of the Global Environment Aligned with the Arousal of Environmental Awareness

Over a half century ago, the pioneering ecologist Aldo Leopold observed that "man's invention of tools has enabled him to make changes of unprecedented violence, rapidity, and scope," and the more violent the human changes, the greater the likelihood the affected individuals, species, or ecosystems will never recover.[42] Since the industrial revolution, the deterioration of natural resources was further supervened by the environmental pollution issue. Then after World War II, as humankind has come to possess unparalleled power in history to exploit and reclaim nature, environmental issues become more and more serious. The truth of Leopold's warning is validated especially in recent years and the environmental issues rising to the international concern have "progressively advanced from purely local trans-boundary to regional/continental and, lately, global dimensions."[43] At present, global environmental problems include climate change, ozone depletion, nitrogen loading, species extinction, biodiversity loss,

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[42] VED P. NANDA & GEORGE PRING, *supra* note 15, at 3.

[43] Gunther Handl, *Environmental Security and Global Change: The Challenge to International Law*, *in* 1 INTERNATIONAL ENVIRONMENTAL LAW 3, 4 (Paula M. Pevato ed., 2003).

ocean pollution, natural areas destruction, deforestation, and desertification and so on.[44] As a matter of fact, broadly speaking the five vital problems that Earth faces, namely population, resources, energy, food and environment fall into environmental problems and are affiliated intimately with the imbalance of the ecological environment.

Under the circumstances, it is widely recognized that the environmental problems cannot be fenced with and it leaves no time to delay to protect the Earth. Although environmental concerns held a low priority in the early years of international trade,[45] international environmental issues have been moved from the periphery to the center of the world stage.[46] The arousal of environmental awareness urges nations and international community to take steps to find a solution to the problems.

In 1972 the UN Conference on the Human Environment was held at Stockholm[47] and it was "the first time that attention was drawn to the need to preserve natural habitats to produce a sustained improvement in living conditions for all, and the need for international cooperation to achieve this."[48] In November 1991, Working Group on Environmental Measures and International Trade was convened by the GATT contracting parties, and then environmental issues were established within the multilateral trading system formally.[49] In 1994, WTO

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[44] And at a transboundary level, there are acid deposition, diminished freshwater quality and quantity, nuclear accidents, sprawling urbanization, etc. *See* VED P. NANDA AND GEORGE PRING, *supra* note 15, at 4.
[45] Richard Skeen, *supra* note 8, at 164.
[46] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1407.
[47] To date, over 500 international treaties and other agreements related to the environment have been concluded, and around 60 per cent of such agreements postdated the Stockholm Conference. *See* Paula M. Pevato, *Introduction* to 1 INTERNATIONAL ENVIRONMENTAL LAW xxviii (2003).
[48] 1972: UN Conference on the Human Environment, Stockholm, Sweden, available at http://www.are.admin.ch/are/en/nachhaltig/international_uno/unterseite02329/. And after this conference, environmental issues slowly penetrated domestic and international policy in the mid-1970s. *See* Richard Skeen, *supra* note 8, at 162.
[49] Richard Skeen, *supra* note. It should be noted that there is no provisions in the original GATT document which markedly addressed environmental protection, for the environment was not on the domestic policy agenda when the GATT was signed in 1947. During that period, environmental protection agencies and environmental NGOs, such as Greenpeace, World Wildlife Fund, and Friends of the Earth, did not exist in the United States and Europe. *See*

members established a Committee on Trade and Environment (CTE) at the first meeting of the WTO General Council after the entry into force of the WTO.[50] In a word, the protection of the natural environment has become one of the international community's greatest concerns.[51]

B. The Nature of TREMs: the Trade-Environment Conflict

It should be noted that the power of the existing international organizations, such as World Health Organization, to deal with the environmental issues is quite dispersive and notwithstanding the establishment of the CTE, the environment problem is not directly incorporated into the holistic framework and legal regime of WTO. Therefore, severe environmental problems press nations, especially developed countries, to pass laws and regulations as well as use TREMs as a resort to improve or at least to prevent the deterioration of the environment.

Environmentalists opine that even though TREMs are not the perfect instrument to solve environmental problems, they are, in great part, the only instrument available. There exists no higher sovereignty surpassing all the countries in the international level, so it is much more effective to protect environment by dint of TREMs than by other means, since TREMs can press relevant countries to pay attention to this issue and induce them to either positively or passively take some actions.

However, the adoption of such TREMs, to a certain extent, run afoul of the free trade tenet advocated by WTO and deviate from some basic principles of WTO. All in all, TREMs present

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Gregory C. Shaffer, *The World Trade Organization Under Challenge: Democracy and the Law and Politics of the WTO's Treatment of Trade and Environment Matters*, 25 HARV. ENVTL. L. REV. 1, 17 (2001).

[50] *See* http://www.dfat.gov.au/trade/negotiations/environment/.

[51] Lorenzo Schiano di Pepe, *supra* note 13, at 273.

the fierce conflict between the imperative of environmental protection and prohibition of such measures in international trade regime.[52]

1. Interests Served by the International Trade vs. Environmental Interests

a. Interests Served by the International Trade Regime

For the purpose of this section, it is quite necessary to observe the three primary interests served by the international trade regime.[53] The first interest is the economic interest.[54] During the inter-war years, barriers to international trade helped to deepen and prolong the Great Depression. Learning from this lesson, the post-war trading regime was designed to eliminate all kinds of barriers to trade as well as discrimination in trade.[55] Multilateral efforts have been made to achieve such goals, and the most visible efforts are the actions of several different groups of nations to establish various forms of economic integration,[56] such as the European Community, the North American Free Trade Agreement and, of course, the GATT. As the most influential international trade agreement, the GATT has successfully reduced tariffs on international trade and has promoted trade by eliminating other impediments to trade, namely, the "non-tariff trade barriers."[57] It is believed that liberal trade would best increase the efficiency of international production and promote the aggregate welfare of all nations.[58]

Respect for the national sovereignty of all nations is a second significant interest. National sovereignty, as the corner stone of contemporary international law, means the fundamental legal status of a nation "that is not subject, within its territorial jurisdiction, to the governmental or

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[52] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1408.
[53] *Id*. at 1421-22.
[54] *Id*. at 1422.
[55] Jeffrey L. Dunoff, *Resolving Trade-Environment Conflicts: The Case for Trading Institutions*, 27 CORNELL INT'L L.J. 607, 607 (1994) [hereinafter Jeffrey L. Dunoff, *Resolving Conflicts*].
[56] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1422.
[57] Stephanie Carlsten, *supra* note 31, at 35. It is based on the classical theory of comparative advantage that is an essential assumption underlying the GATT. *See* Jeffrey L. DUNOFF, *Resolving Conflicts*, *supra* note 55, at 609.

judicial jurisdiction of a foreign nation or to foreign law other than public international law."[59] While participating in the international trade regime does make nations surrender some degree of sovereignty, the trade regime in turn advances the interest in sovereignty in some other respects.[60] For example, it is not permissible under the trade regime for one state to interfere in the internal or domestic affairs of another state.[61]

Thus, in addition to promoting international trade, the GATT serves the goal of enhancing national sovereignty. [62] The GATT drafters sought to maximize the ability and authority of each nation to set its own economic and political policies without interference from other nations.[63] However, nowadays, the rights deriving from national sovereignty are not unlimited freedoms but powers shared between the holder of the power and the community of states, and sovereignty "has become the legal basis for inclusion, or of a commitment to co-operate for the good of the international community at large."[64]

The third related interest is the interest in political harmony.[65] Based on the underlying theory that the elimination of trade restrictions creates economic interdependence and economic integration, the GATT bends itself to eliminate political frictions and conflicts caused by trade restrictions and has enjoyed great success in this respect.[66]

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[58] It is based on the classical economic theory of comparative advantage. *See* Jeffrey L. Dunoff, *Resolving Conflicts, supra* note.
[59] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1423-24.
[60] *Id*. at 1424.
[61] To the extent that TREMs represent an attempt by one state to change the environmental practices of another nation, they seem to conflict with the national sovereignty interest. *Id.*
[62] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 611.
[63] *Id*. at 611-12.
[64] Gunther Handl, *supra* note 43, at 32.
[65] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1426.
[66] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 610.

The three interests set forth above have been continually used to strike down trade restrictions intended to preserve environmental resources, including TREMs.[67]

b. Environmental Interests

Because different TREMs are designed to protect different environmental interests, it is helpful and convenient to summarize the main environmental interests concisely.[68] The environmental interests have a quite broad spectrum, which consist of international watercourses, marine environment, control of hazardous waste, atmosphere and outer space, and conservation of nature, ecosystems and biodiversity etc.[69] Of these widely recognized genuine and true environmental interests, atmosphere, biodiversity and the duty not to harm the global commons are the most noticeable ones.

It is acknowledged that the upper atmosphere of the Earth is outside the jurisdiction of any single nation and therefore is a global common resource.[70] Like the high seas, the global atmosphere must be used with reasonable regard for other states' rights, including protection of their environment and human health.[71] In recent years, international efforts to protect the global atmosphere have focused on ozone depletion and global warming.[72]

Biodiversity, i.e., biological diversity, is the variability of life in all its forms, levels and combinations; and it is most expediently, but not exclusively, defined in terms of three

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[67] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1428.
[68] *Id*.
[69] PATRICIA W. BIRNIE & ALAN E. BOYLE, *Contents* to INTERNATIONAL LAW AND THE ENVIRONMENT viii-x (2d ed. 2002).
[70] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1428.
[71] PATRICIA W. BIRNIE & ALAN E. BOYLE, *supra* note 69, at 516.
[72] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1428-29. The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer sets firm targets for reducing and eventually eliminating consumption and production of a series of ozone-depleting substances; and amendments were adopted in 1990 and 1992 to add additional substances and the timetable for complete elimination was revised and brought forward to 1996 accordingly. *See* PATRICIA W. BIRNIE & ALAN E. BOYLE, *supra* note 69, at 519. Moreover, the Protocol also tries to deal with the problem of non-parties by prohibiting trade with these states in controlled substances or products containing such substances. *See id*. at 520.

conceptual levels: ecosystem diversity, species diversity and genetic diversity.[73] Biological resources are vital to human existence since they supply the essential materials to life on the planet.[74] However, it is woeful that attributable to the wrongdoing of humankind much biodiversity has been and is being lost through extinction due to the loss of natural habitats.[75] Such threats have attracted intense attention of many nations and some important multilateral treaties have been set down.[76]

As to the duty not to harm the global commons,[77] it seems to have become a self-evident rule that nations should ensure that activities within their jurisdiction do not cause damages to the environment beyond the limits of national jurisdiction, including the global commons.[78] The duty not to harm the environment outside a country's borders has manifested in a number of United Nations resolutions and treaties.[79]

2. The Relation between Trade and Environment

As is shown above, on the one hand, the protection of the environment has become one of the international community's great concerns and on the other hand, it is at the same time recognized

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[73] *See* PATRICIA W. BIRNIE & ALAN E. BOYLE, *supra* note 69, at 549 and Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1431. "Biological diversity" is defined by the 1992 Convention on Biological Diversity as "the variability among living organisms from all sources, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part" including diversity "within species, between species and of ecosystems". *See* PATRICIA W. BIRNIE & ALAN E. BOYLE, *supra* note 69, at 549.

[74] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1431. The values of biodiversity consist of use values and non-use values. Use values include direct use, indirect use, and option values. And non-use values include aesthetic, intrinsic, ethical, spiritual, existence, and bequest values. For more details, please *see* VED P. NANDA & GEORGE PRING, *supra* note 15, at 172.

[75] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1431.

[76] For example, the 1992 Convention on Biological Diversity and the Convention on International Trade in Endangered Species.

[77] "Global commons" means areas lie outside the limits of national jurisdiction. Someone thinks that it merely includes the international seas, Antarctica and outer space. *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 163. This is too narrow a definition to be appropriate in the opinion of this author.

[78] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1433.

[79] The well-known Stockholm Declaration provides that "States have ... the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." Further, the U.N. General Assembly proclaimed that this rule is fundamental regarding the international obligations of states with respect to the environment. *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1434.

that international trade liberalization should be promoted to the good of all nations.[80] This kind of tension between trade liberalization and environmental protection has spawned arguments on the relationship between trade and environment.

Some commentators, especially trade proponents, have argued that at least theoretically the enhancement of trade liberalization is capable of promoting higher environmental standards, because international trade would reward those who can use natural resources in the most efficient manner, then promote efficient allocation of resources as well as reduce the burthen on the environment derived from non-optimal uses of resources.[81] In addition, trade liberalization is of great importance for enhancing international economic growth,[82] therefore the increase of wealth resulting from trade liberalization allows for greater financial resources to be employed in scientific research and environment-friendly technology.[83] Moreover, trade proponents also support their allegation by empirical evidence which indicates that wealthier countries on average have much stricter environmental standards than poorer countries.[84] The WTO special studies on trade and environment which were issued in 1999 mentioned that "pollution levels tend to be significantly higher in countries with a skewed income distribution, a high level of illiteracy, and few political and civil liberties."[85] Viewed under this light, it appears that trade liberalization and environmental protection may work harmoniously.[86]

Yet, the other side of the coin also warrants examination.

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[80] Lorenzo Schiano di Pepe, *supra* note 13, at 272-73.
[81] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 615.
[82] Atsuko Okubo, *supra* note 4, at 644.
[83] Lorenzo Schiano di Pepe, *supra* note 13, at 274.
[84] Benjamin Simmons, *supra* note 4, at 417.
[85] *See generally* Hakan Nordstrom & Scott Vaughan, World Trade Organization, *Special Studies 4: Trade and the Environment* (1999), at 57, at http://www.wto.org/english/news_e/pres99_e/environment.pdf (last visited Feb. 17, 2005) [hereinafter Hakan Nordstrom & Scott Vaughan, *Special Studies*].
[86] Benjamin Simmons, *supra* note 4, at 418.

Firstly, free trade in itself (by its mere existence) may represent a serious threat to the conservation of the natural environment, as some, especially environmentalists, have maintained radically.[87]

Secondly, trade liberalization may impose increased development pressure on countries, especially those who fail to enact stringent domestic legislation to protect environment, and encourage them to over-exploit natural resources in order to satisfy increased domestic as well as international demand.[88]

Thirdly, expanded trade may lead to such problems as pollution havens and the lowest common denominator approach to environmental regulation [89] and trigger a so-called "race to the bottom," for to seize hold of a larger market share, countries are apt to prefer lax environmental standards either consciously or unconsciously. [90]

Lastly but not the least importantly, as environmentalists have maintained, the alleged most efficient resource allocation without regard to the origin, as is advocated by proponents of free trade, in reality leads to environmental damages and ignores other values.[91] And additional resources and wealth derived from market growth through trade liberalization may not benefit the environment because it is difficult, if not impossible, to evaluate the value of the environment *per se* accurately.[92] Furthermore, the irretrievability of environmental damages and the inherent limitation of recuperating such loss may make it impossible to use the additional resources and

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[87] Lorenzo Schiano di Pepe, *supra* note 13, at 274. For example, trade might create economic incentives to mis-use farm land or to cut down rain forest. *See* John H. Jackson, *supra* note 32, at 41.

[88] Benjamin Simmons, *supra* note 4, at 418. Such exploitation of natural resources would collaterally do harm to other resources that are part of the global commons, such as water, air and migratory species. As a result, trade liberalization can lead to unsustainable development. *See id*.

[89] Kelly J. Hunt, *International Environmental Agreements in Conflict with GATT - Greening GATT after the Uruguay Round Agreements*, 30 INT'L L. 163, 166 (1996).

[90] Paula M. Pevato, *supra* note 47, at xlii. It should be noted that letting polluters make use of the countries with loose environmental regulations as export platforms into those markets with higher standards "would penalize virtuous firms staying at home, and would make raising standards more difficult for environmentalists everywhere." *See* Kelly J. Hunt, *supra* note.

wealth to improve the environmental standards. In addition, as environmentalists further point out, the growth of welfare generated by trade liberalization would be quite destructive where prices of products do not reflect environmental costs.[93]

Maybe it is hard to accept the concept that free trade in itself is a serious threat to the environment. It is the same hard, however, to deny that the next three points have their strength and force. This is supported by discussion in Section A, Chapter V below of the defects of the traditional basis of the world free trade regime: the theory of comparative advantage. As is shown in that Section, the externality of environmental problems and scarcity of resources was ignored by the theory of comparative advantage. It is this very kind of ignorance at bottom that determines that the world free trade regime has ignored the environment until very recently.

Thus, it might be true that theoretically free trade in the long run is good for the environment. But only "theoretically," and only "in the long run." Please remember that the world of reality is not a "theoretically" perfect world: the free trade regime is based on a theory with defects especially bad for the environment.

C. Justifiable versus Unjustifiable TREMs

Though it is hard to draw a definite conclusion on the debate mentioned above, it may be safe to draw a tentative conclusion that, while trade liberalization may have its pros, it at the same time may have its cons and it may at least be contributing to environmental degradation.[94] Or to say the least, it is evident that the essential issue involved in the debate is the inevitable tension

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[91] Kelly J. Hunt, *supra* note.
[92] *Id*.
[93] *Id*. Someone thinks that there is a third possible approach. That is: any discussion on the interplay of trade and environmental interests has to be based on the understanding that trade cannot be considered an end *per se* but, rather, "a means to . . . environmentally sustainable economic development." *See* Lorenzo Schiano di Pepe, *supra* note 13, at 274.
[94] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 615.

between promoting free trade and protecting the environment.[95] It is out of this very tension that TREMs have emerged and developed and can be justified.

TREMs are one useful way to address the "collective action" problems related to multilateral efforts to protect the global commons.[96] By adopting TREMs, nations that take action to preserve global commons in discharging their obligations under an environmental treaty can exclude non-cooperating nations from enjoying the "public good" created by the former and thereby encourage the latter to join the treaty regime.[97]

More importantly, as a practical matter, few other means are available for nations to cause other states to protect global common resources.[98] On the one hand, less coercive measures, for example, diplomatic pressure, are not sufficiently enough to persuade nations to change their environmental practices.[99] On the other hand, it is quite understandable that nations are often not willing to adopt more coercive measures, such as the threat or use of force, against another country simply because the latter participates in trades that will lead to negative consequences for the environment.[100]

In a word, while TREMs are not able to address the inevitable conflict between trade liberalization and environmental protection root and branch like some environmentalists expect, there is no question about it that TREMs for the purpose of protecting environment are of great benefit to the ecological environment and the life and health of human, animal or plant.[101] It is

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[95] Kelly J. Hunt, *supra* note 89, at 166.
[96] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1436.
[97] *Id*. at 1436-37. In some circumstances, action by a group of states may be offset even rendered ineffective if other states do not cooperate. *Id*. at 1437.
[98] *Id*. at 1438.
[99] *Id*.
[100] *Id*.
[101] It must be recognized that "while trade measures are rarely, if ever, the first-best policy for addressing environmental problems, governments have found trade measures a useful mechanism … for attempting to modify the behaviour of foreign governments in others." *See* Hakan Nordstrom & Scott Vaughan, *Special Studies*, *supra* note 85, at 3.

not only extreme but also improper to label TREMs "green trade barriers" at large and thereby oppose and stick up to them blindly.

However, there is a problem that most TREMs will contain some incidental "protectionist" element, whether it is a domestic environmental standard or a regulation on imported products.[102] Thus, technically speaking, every TREM runs afoul of the free trade tenet carefully guarded by GATT/WTO. So it is quite imaginable that to decide whether or not a TREM is motivated primarily by protection or conservation of the environment could be very arduous.[103] Then how can the WTO Dispute Settlement Body tell justifiable TREMs from "protectionism disguised as environmental protection?"[104] What is the criterion?

It is admitted that any sovereign country is entitled to employ legislative and administrative instruments to protect and preserve domestic environment. Only those measures that are adopted out of the exclusive purpose to throw obstacles in the way of foreign products' access to the domestic market and thereby have distorted the international trade order can be specified as "unjustifiable."[105] However, "purpose," as a kind of subjective intention, is very difficult to ascertain. Thus, to make an evenhanded judgment, we have to examine the exterior manifestation of each TREM, or we run the risk of being stuck in the mire of arbitrariness and unjustness.

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[102] David Pearce, *The Greening of the GATT: Some Economic Considerations*, *in* 1 TRADE & THE ENVIRONMENT: THE SEARCH FOR BALANCE 20, 28 (James Cameron, et al. ed., 3rd prtg. 1997). Someone thinks that there are three most important reasons for which nations adopt TREMs. Firstly, nations use them to protect or enhance their domestic environmental quality. The second reason is to motivate other nations to enact more effective environmental controls or to retaliate upon nations that are not willing to adopt adequate environmental standards. "In either case the motive is not only to protect the environment but also to level the competitive playing field, so that lax environmental regulation cannot be used to gain a comparative advantage in international commerce." Thirdly, nations employ trade restrictions aiming to protect the global environment and preserve resources outside the boundaries of national jurisdictions. *See* Thomas J. Schoenbaum, *Trade-Related Environmental Measures (TREMs): The United States Perspective*, *in* 1 TRADE & THE ENVIRONMENT: THE SEARCH FOR BALANCE 366, 366 (James Cameron, et al. ed., 3rd prtg. 1997).
[103] David Pearce, *supra* note.
[104] Tanyarat Mungkalarungsi, *The Trade and Environment Debate*, 10 TUL. J. INT'L & COMP. L. 361, 367 (2002).
[105] Xiaoqin Zhu, *supra* note 13, at 19.

Thus, some principles are proposed which may be useful to test whether or not a TREM is justifiable, especially when the purpose of the TREM is to preserve the global commons.[106] According to the opinion of Professor Jeffrey L. Dunoff, the principles would examine: the type and strength of the interest, whether the TREM discriminates between foreign nations or between foreign and domestic products, and whether the TREM is related to and proportionate to the purported environment goal.[107]

Concretely, we need firstly to identify the nature of interest being protected and to ensure that the measure is truly designed to protect the environment.[108] After that, it is necessary to analyze the strength of the interest in the protected resource.[109] One approach which can be used to achieve this goal is to determine whether the specific environmental interest at stake is the object of protection under certain customary or treaty law.[110] If a measure concerns resources outside the protection scope of international environmental law,[111] it "could be justified by scientific evidence regarding the specific environmental threat."[112] In evaluating this principle, the country employing the TREMs ought to undertake the burden of presenting evidence to demonstrate that the restriction has a scientific foundation.[113]

Secondly, TREMs should not discriminate among foreign products, or between foreign and domestic products. This nondiscrimination principle is also deeply embedded in international

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[106] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1441.
[107] *Id*. While the legal test is brought forward to examine the measures that try to protect the global commons resources, I think it can also be applied to other TREMs.
[108] *Id*.
[109] *Id*. at 1442.
[110] *Id*.
[111] It means such resource sought to be protected is a relatively new field. *Id*.
[112] *Id*. This analysis puts forward the controversy of the level of scientific certainty required before TREMs are justified. There are two issues which need to be dealt with. One is whether there is sufficient information to gain an accurate assessment of risk. The other is how one can distinguish between an acceptable level of risk and a risk that justifies TREMs. It seems that it is quite hard to get a precise or universal answer. *See id*. at 1443.
[113] *Id*. at 1444.

trade regime, especially in the GATT.[114] The Reformulated Gasoline case brought by Brazil and Venezuela against the U.S. is a very good example to illustrate this principle.[115] According to the 1990 Clean Air Amendments ("CAA")[116] which was passed to reduce air pollution by motor vehicle emissions, in 1994, the United States Environmental Protection Agency promulgated its final rule "Fuels and Fuel Additives - Standards for Reformulated and Conventional Gasoline" ("EPA rule")[117] to meet the objective of vehicle emission reductions designated by the CAA.[118] The new EPA rule provided different methods of determining baselines for acceptable quality of gasoline for domestic refiners and importers of gasoline separately,[119] and it allowed the U.S. refiners access to the market with domestically established "baseline" fuel content while imports of foreign gasoline could not use the 1990 baseline and thereby had to abide by more stringent statutory baselines.[120] The WTO dispute panel held that the EPA rule which refused to recognize foreign refinery baseline and then left them at a competitive disadvantage was discriminatory,[121] and as a result, inconsistent with Article III of the GATT, i.e. the National Treatment.[122] In addition, the Panel drew a conclusion that the measure adopted by the U.S. did not fall within the

[114] *Id*. at 1445. The Article I of the GATT prescribes the most-favored-nation treatment which requires all contracting parties to extend any advantage or concession extended to one nation to all GATT member states. And GATT Article III imposes national treatment to all member states and asks them to treat imported products no less favorably than like domestic products. *See id*. at 1445-46.
[115] World Trade Organization: Report of the Panel In United States – Standards for Reformulated and Conventional Gasoline (Treatment of Imported Gasoline and Like Products of National Origin), May 20, 1996, 35 I.L.M. 274 (1996) [*hereinafter* Reformulated Gasoline Appellate Body Report].
[116] Air Pollution Control (Clean Air) Act Amendments of 1992, 42 U.S.C. §7401, *et seq*.
[117] Regulation of Fuels and Fuel Additives - Standards for Reformulated and Conventional Gasoline, 40 C.F.R. 80 (1994).
[118] VED P. NANDA & GEORGE PRING, *supra* note 15, at 408.
[119] *Id*. at 408-09; 40 CFR § 80.91.
[120] James Cameron & Karen Campbell, *supra* note 19, at 210.
[121] "Imported and domestic gasoline are like products, and imported gasoline is treated less favorably than domestic gasoline under the Gasoline Rule." *See* Reformulated Gasoline Appellate Body Report, *supra* note 115, at 611.
[122] James Cameron & Karen Campbell, *supra* note 120.

protection of Article XX (b) and XX (g) exceptions.[123] Although the U.S. appealed the Panel's decision to the WTO Appellate Body, the same conclusion as the Panel was arrived.[124]

Lastly, the TREMs employed should be related to and proportionate to the environmental interest which is sought to be protected.[125] This means that first of all, a TREM must be related to the offensive activity that it seeks to halt, i.e., "a due relation between means and ends has to be observed."[126] Next, while the doctrine of proportionality is also applied as a restriction on state action under many other circumstances, here, it means that TREMs should not occasion disproportionate effects.[127] The use of the principles of relatedness and proportionality as limiting tests in this context can act as a check on the protectionist impulse.[128]

D. Summary

This chapter, by looking at the general background against which TREMs have emerged, claims that TREMs have their reasonableness rooted deep in history, one that has been witnessing the fast and widespread deterioration of environment, which is aggravated, at least to a certain extent, by trade liberalization almost of the same time (Section A). Not surprisingly, most TREMs have an undeniable "protectionist" implication: on the objective level, they have the effect of restricting trade. Thus, we see that trade liberalization pulls one way, while TREMs pull the other way. In another word, there is an inherent trade-environment conflict reflected in TREMs. In addressing this conflict, it is important to recognize that both trade liberalization and environmental protection have their respective legitimate ends (Section B). What is inherent in

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[123] World Trade Organization Appellate Body: Report of the Appellate Body in United States-Standard for Reformulated and Conventional Gasoline, May 20, 1996, 35 I.L.M. 603 (1996), at 611.
[124] It should be mindful that the WTO Appellate Body based its report on different grounds which will be discussed *infra*. *See* James Cameron & Karen Campbell, *supra* note 19, at 211.
[125] This principle is also derived from international law and has a long history. *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1447.
[126] *Id*. at 1448.
[127] *Id*. at 1447.
[128] *Id*. at 1448.

such a recognition is that, TREMs shall not be rejected completely, since they may be designed out of a true concern of environment, and they shall not be hailed blindly, since they may be designed out of a trade protectionist concern with an environmental glossing. In a word, there are justifiable TREMs and unjustifiable ones (Section C). Though neither trade nor environment shall be given a preference at the expense of the other, in order to address the delicate balance between trade and environment, that there are justifiable TREMs needs to be more emphasized, since traditionally this point is not recognized by the global free trade regime and it is especially contested heavily by developing countries, who tend to view TREMs only as trade protectionist measures. Or put it another way, developing countries need to change their attitude of blanket objection to TREMs.

Therefore, this chapter, by clarifying the general historical background, the true nature of TREMs and that there are justifiable TREMs (though there are at the same time unjustifiable ones), functions as a rebuttal to Section C of Chapter II where the attitude of developing countries to TREMs is generalized. But if such an analytical rebuttal in this chapter is not enough, it is shown in the following chapter that, on a practical level, developing countries have to change their attitude as early as possible for their own good: the development of the GATT/WTO TREMs jurisprudence clearly indicates that the GATT/WTO framework is actually admitting that there are justifiable TREMs. This means that if developing countries do not adapt their attitude accordingly, they may be forced to do so very soon.

CHAPTER IV

TREMS TESTED UNDER THE GATT DISPUTE SETTLEMENT SYSTEM: THE CHALLENGE AND TURNING POINT

It is well-known that the GATT's specific purpose has been, until now, to promote the trade liberalization[129] and like most other post-war trade agreements on free trade areas and customs unions, the text of GATT 1947 did not clearly address the issue of protecting environment.[130] However, "the GATT dispute settlement system has been used more frequently for the settlement of environmental disputes between states than any other international dispute settlement mechanism."[131] There are seven panel reports on TREMs which had been submitted to the GATT Council as of the termination of the GATT 1947, moreover, the first panel report under the WTO dispute settlement system also focused on the GATT legitimacy of TREMs.[132]

Although the GATT has been criticized by environmentalists that it has not incorporated the environmental issue into its regime[133] and the GATT has been relatively sluggish to respond to such criticism on account of such extraneous environmental policy's implications on trade policy,[134] the GATT has undergone some remarkable changes towards the trade-environment

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[129] Paul Demaret, *supra* note 13, at 65.

[130] ERNST-ULRICH PETERSMANN, THE GATT/WTO DISPUTE SETTLEMENT SYSTEM: INTERNATIONAL LAW, INTERNATIONAL ORGANIZATIONS AND DISPUTE SETTLEMENT 94 (1997). Some pointed out that "the absence of an explicit reference to the protection of the environment in the GATT should not come as a surprise since the latter was signed in 1947." *See* Paul Demaret, *supra* note. The GATT 1947 used to be a development-oriented international organization without much to refer to the environment. *See* Paula M. Pevato, *supra* note 47, at xlii-xliii.

[131] ERNST-ULRICH PETERSMANN, *supra* note. This may partly due to the fact that since its implementation on January 1, 1948, the GATT has become the most important and influential multilateral trade treaty in the world. *See* Miquel Montana i Mora, *A GATT with Teeth: Law Wins Over Politics in the Resolution of International Trade Disputes*, 31 COLUM. J. TRANSNAT'L L. 103, 107 (1993).

[132] ERNST-ULRICH PETERSMANN, *supra* note 130.

[133] There is overwhelming criticism on the GATT of being "insufficiently responsive to environmental consequences" of world trade. *See* Paula M. Pevato, *supra* note 47, at xliii.

[134] John H. Jackson, *supra* note 32, at 40.

debate. These changes, which drop a hint that the WTO has begun to pay more attention to the environmental protection, deserve attention for the purpose of this thesis.

Firstly, in 1994 the WTO was established by the final act of the Uruguay Round of trade negotiations, and the recognition of sustainable development was for the first time included in the Marrakesh Agreement's preamble as the WTO's overarching objective.[135] According to the preamble, the goals of trade liberalization should be pursued "while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development." [136] This means that the risks associated with unimpeded trade finally are recognized and a balance between trade liberalization and environmental protection so as to achieve the ultimate goal of sustainable development is called upon by the preamble.[137]

Secondly, in 1999, the WTO presented a special study on trade and environment[138] to manifest what the WTO considers as "sweeping generalizations" about interaction between trade

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[135] Paula M. Pevato, *supra* note 133. The Appellate Body of the Shrimp/Turtle case analyzed the history of the preamble, noting that the "objective of 'full use of the resources of the world' ... was no longer appropriate to the world trading system of the 1990s," and that the new preamble "demonstrates a recognition by WTO negotiators that optimal use of the world's resources should be made in accordance with the objective of sustainable development." *See* Benjamin Simmons, *supra* note 4, at 435 and United States - Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R (Oct. 12, 1998), 38 I.L.M. 118, 152-53.

[136] Benjamin Simmons, *supra* note, at 418. The reference to sustainable development in the Preamble of the WTO Agreement is as follows: "Relations in the field of trade and economic endeavor should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development." *See* General Agreement on Tariffs and Trade: Multilateral Trade Negotiations Final Act Embodying the Results of the Uruguay Round of Trade Negotiations, 33 I.L.M. 1125, 1267 (1994).

[137] Benjamin Simmons, *supra* note 4, at 418. This change, by the square, echoes the opinion that "among existing world institutions, only the GATT is capable in the long run of striking such a balance" between free trade and environmental protection, which are equally important for the wellbeing of the world community. *See* Paul Demaret, *supra* note 13, at 66.

[138] *See* Hakan Nordstrom & Scott Vaughan, *Special Studies*, *supra* note 85.

and environment.[139] In this report, the WTO surprisingly candidly conceded that global trading systems do, in some circumstances, defeat environmental standards and therefore harm the environment.[140] Further, by recognizing that "not all kinds of growth are equally benign for the environment,"[141] the WTO Report, to some extent, retouched "the common trade liberalization assumption that environmental protection increases as income increases in developing countries."[142]

In fact, such gradual changes of the WTO's stance toward the trade-environment debate are also reflected in the panel decisions related to TREMs delivered by the WTO Dispute Settlement Body ("DSB"), since the most fundamental and controversial issue confronting the WTO in the trade-environment debate is whether TREMs purporting to protect the environment are compatible with the GATT/WTO law system.[143] It will be very instructive to study the GATT case law on TREMs.[144] In these cases, Article XX of the GATT may be the most frequently cited justification for a TREM which is accused of running afoul of the GATT's anti-discrimination provisions.[145] Article XX consists of two parts, the introductory clause (chapeau) and the list of exceptions detailing the article's scope:

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

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[139] Stephanie Carlsten, *supra* note 31, at 34.
[140] *Id*.
[141] *See* Hakan Nordstrom & Scott Vaughan, *Special Studies*, *supra* note 138.
[142] Stephanie Carlsten, *supra* note 31, at 34.
[143] Robert Howse, *The Appellate Body Rulings in the Shrimp/Turtle Case: A New Legal Baseline for the Trade and Environment Debate*, 27 COLUM. J. ENVTL. L. 491, 491 (2002).
[144] A commentator said that the GATT case law on TREMs is "a good illustration of how GATT law and the GATT dispute settlement system have succeeded in effectively dealing with a new worldwide policy challenge that was hardly recognized by the founding fathers of GATT." *See* ERNST-ULRICH PETERSMANN, *supra* note 130, at 95.

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

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."[146]

A. The GATT Panel Report on Tuna/Dolphin I

The GATT dispute resolution panel report, United States Restrictions on Imports of Tuna (hereinafter "Tuna/Dolphin I")[147] "represented the first instance" in which a GATT panel had been requested to examine the consistency of a unilateral trade measure to protect a global resource with the GATT law system.[148]

1. Background

In the Eastern Tropical Pacific Ocean, dolphins and tuna regularly swim directly above schools of yellowfin tuna.[149] The dolphins come to the surface to breathe and therefore are easy to be discovered by fishing vessels.[150] Fishermen, by looking for dolphins, avail themselves of the tuna/dolphin relationship and cast their huge purse seine nets around dolphins in order to catch the tuna below the surface.[151] This method injures or drowns dolphins and makes them the unfortunate and "incidental" victims of the tuna catch.[152] Under this circumstance, in 1972, the U.S. Congress enacted the Marine Mammal Protection Act ("MMPA")[153] which was designed to

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[145] Richard Skeen, *supra* note 8, at 184.
[146] *See* General Agreement on Tariffs and Trade, Article XX, at 37-38, available at http://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf (last visited Feb. 17, 2005).
[147] *See* United States -- Restrictions on Imports of Tuna, Aug. 16, 1991, 30 I.L.M. 1594.
[148] Benjamin Simmons, *supra* note 4, at 419-20. Someone thinks that the Tuna/Dolphin I is a landmark case in the environment/trade arena. *See* Atsuko Okubo, *supra* note 4, at 599.
[149] VED P. NANDA & GEORGE PRING, *supra* note 15, at 404.
[150] Jeffrey L.Dunoff, *supra* note 2, at 1410.
[151] VED P. NANDA & GEORGE PRING, *supra* note 149.
[152] *Id*. During the 1960s and 1970s, around 400,000 dolphins per year were being killed as a result of purse seine fishing. *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1410.
[153] 16 U.S.C. 1361-1407 (1988).

reduce the incidental injuring and killing of dolphins due to the above-mentioned fishing method.[154]

The MMPA bans the "taking"[155] of marine mammals without a permit and only the American Tuna-Boat Association was accorded such a permit prior to the case.[156] The MMPA also requires the Secretary of the Treasury to ban the importation of tuna caught by foreign fishermen who use technology resulting in incidental killing or injuring marine mammals in excess of U.S. standards.[157] In 1988, the Congress amended the MMPA, pursuant to which, the U.S. put import prohibitions on tuna and tuna products from Mexico and some other states.[158]

2. Main Arguments

In 1991, Mexico filed a grievance to the GATT and at the instance of Mexico, a dispute panel was convened.[159] Mexico maintained that the prohibitions violated the GATT Article XI which forbids quantitative restrictions; was inconsistent with the GATT Article XIII because it imposed discrimination on a particular geographical region; and breached the GATT Article III in that Mexico could not know the average kill rate of the U.S. vessels until the end of the season.[160]

The U.S. countered that the import prohibitions were internal regulations consistent with Article III: 4; and that in the event that the prohibitions were inconsistent with Article III, they should fall within Article XX(b) and XX(g) exceptions.[161]

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[154] VED P. NANDA & GEORGE PRING, *supra* note 149.
[155] To "take" means "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal." 16 U.S.C. 1362(12) (1988).
[156] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1411.
[157] *Id*. To avoid the import ban, a foreign fishing fleet cannot kill more than 125 percent of the number of dolphins killed by the U.S. in the same period. VED P. NANDA & GEORGE PRING, *supra* note 149 and 16 U.S.C. 1371(a)(2)(B)(II) (1988).
[158] VED P. NANDA & GEORGE PRING, *supra* note 149.
[159] Richard Skeen, *supra* note 8, at 186.
[160] David Pearce, *supra* note 102, at 27.
[161] 30 I.L.M. 1594, 1601.

3. The GATT Panel Decision

The Panel submitted a report on the Tuna/Dolphin I case in favor of Mexico.[162] Firstly, the Panel examined that whether the import prohibitions were internal regulations under Article III or quantitative restrictions under Article XI. The Panel found that "the Note Ad Article III covers only those measures that are applied to the product as such,"[163] and since the import prohibitions were related to the production process rather than any inherent characteristic of the produce, i.e., yellowfin tuna, itself, [164] the Panel came to the conclusion that the import prohibitions did not constitute internal regulations covered by the Note Ad Article III.[165] The Panel further pointed out that even if the provisions of the MMPA were regarded as regulating the sale of tuna as a product, it would be hard for them to meet the requirements of Article III because Article III:4 obliges the U.S. to accord Mexican treatment no less favorable than that accorded to U.S. tuna without regard to whether the method of catch by Mexico vessels corresponds to that of U.S. vessels,[166] and Article III:4 calls for a comparison between products of the exporting and importing nations, and not a comparison between different nation's production processes that have no effect on the product *per se*.[167]

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[162] However, this decision was not adopted by the GATT Council because of an agreement between the U.S. and Mexico. *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 404 n.63. The Agreement for the Reductions of Dolphin Mortality in the Eastern Pacific Ocean in 1992 establishes a declining per-vessel limit on dolphin kills and requires observers on the larger purse-seine vessels. The Agreement also created a research foundation, which engages in programs to develop new fishing techniques to lessen and eventually eliminate dolphin mortality. *See* Richard Skeen, *supra* note 8, at 186.

[163] 30 I.L.M. 1594, 1618, para. 5.14.

[164] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1414. "The Panel noted that the MMPA regulates the domestic harvesting of yellowfin tuna to reduce the incidental taking of dolphin, but that these regulations could not be regarded as being applied to tuna products as such because they would not directly regulate the sale of tuna and could not possibly affect tuna as a product." *See* 30 I.L.M. 1594, 1618, para. 5.14.

[165] *See* 30 I.L.M. 1594, 1618, para. 5.14.

[166] David Pearce, *supra* note 102, at 27.

[167] *See* 30 I.L.M. 1594, 1618, para. 5.15.

Secondly, the Panel concluded that the import prohibitions violated Article XI which forbids the use of quotas, embargoes and other "quantitative" restrictions on imports and exports in that they obviously contradicted the general prohibition on quantitative import restrictions.[168]

Finally, the Panel considered whether the import prohibitions could be covered by Article XX (b) and XX (g) exceptions. The text of Article XX (b) does not clearly answer the basic question whether or not this provision covers measures necessary to protect human, animal or plant life or health outside the jurisdiction of the importing party, the Panel thus resorted to the scant drafting history.[169] The Panel decided that "the record indicates that the concerns of the drafters of Article XX (b) focused on the use of sanitary measures to safeguard life or health of humans, animals or plants within the jurisdiction of the importing country."[170] In addition, the Panel held that the U.S. measure was not "necessary" as required by Article XX (b), because the U.S. had not exhausted all options reasonably available for the protection of dolphins that were less trade restrictive or inconsistent with GATT rules.[171] Moreover, since the permissible Mexican incidental dolphin taking rate for a particular period was linked to the actual taking rate

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[168] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2 at 1414. Article XI provides that "no prohibitions or restrictions . . . whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party." *See* 30 I.L.M. 1594, 1618, para. 5.18. And as far as Article XIII is concerned, in view of the finding that this measure is inconsistent with Article XI:1 the Panel concluded that it was not necessary to make a finding on the question of whether it also breached Article XIII. *See id*., para. 5.19.

[169] 30 I.L.M. 1594, 1619-20, para. 5.25. The Panel noted that the proposal for Article XX(b) dated from the Draft Charter of the International Trade Organization (ITO) proposed by the United States, which stated "Nothing in Chapter IV [on commercial policy] of this Charter shall be construed to prevent the adoption or enforcement by any Member of measures: . . . (b) necessary to protect human, animal or plant life or health". In the New York Draft, the preamble had been revised to read as it does at present, and exception (b) read: "For the purpose of protecting human, animal or plant life or health, if corresponding domestic safeguards under similar conditions exist in the importing country." The Panel thinks that this added proviso reflected concerns regarding the abuse of sanitary regulations by importing countries. Later, this proviso was dropped as unnecessary. *Id*., at 1620, para. 5.26.

[170] 30 I.L.M. 1594, 1620, para. 5.26.

[171] *Id*., para. 5.28. Some commentator pointed out that, as a factual matter, the Panel's assertion that the U.S. had not engaged in multilateral efforts to address the tuna/dolphin problem is simply incorrect. Through the Inter-American Tropical Tuna Commission (IATTC), the U.S. has been involved in ongoing attempts to address this issue. *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1419.

of the U.S. vessels during that same period,[172] the Panel held that a prohibition based on such unpredictable conditions could not be regarded as necessary to protect the health or life of dolphins.[173]

With respect to Article XX(g), the Panel employed the same reason as it used in the discussion of Article XX(b) to arrive at the conclusion that Article XX(g) did not operate extra-jurisdictionally.[174] Even if Article XX(g) could be applied extra-jurisdictionally, the Panel noted that the U.S. measures did not meet the conditions set out in Article XX(g) which required that a measure could be considered as "relating to the conservation of exhaustible natural resources" only if it was primarily aimed at such conservation.[175] This requirement was not met because the conformity with U.S. standards asked the Mexican authorities to know the average taking rate of dolphins achieved by the U.S. fishermen during the same period of time and this constituted "unpredictable conditions."[176] Therefore, the U.S. measure cannot be justified by Article XX(g) either.

The Panel's decision in this case was subjected to some criticism after it was circulated in the international community.[177] But at that time, the interest in liberalized trade was so deeply embedded in the GATT context that the Panel, taking into account the effect of "slippery

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[172] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1418.
[173] 30 I.L.M. 1594, 1620, para. 5.28.
[174] The Panel considered that if the extrajurisdictional interpretation of Article XX(g) suggested by the United States were accepted, each contracting party could unilaterally determine the conservation policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The considerations that led the Panel to reject an extrajurisdictional application of Article XX(b) therefore apply also to Article XX(g). *Id*. at 1621, para. 5.32.
[175] *Id*., para. 5.33.
[176] *Id*. *And see* David Pearce, *supra* note 102, at 28.
[177] For example, the MMPA is evidently not exercised extraterritorially, since it only considers which tuna can be imported into the U.S.. And the Panel failed to define the meaning of "extrajurisdictionally." *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 406.

slope,"[178] felt no need even to attempt to describe the benefits or interests served by the U.S. prohibition.[179]

B. The GATT Panel Report on Tuna/Dolphin II

Three years later, in United States-Restrictions on Imports of Tuna (hereinafter "Tuna/Dolphin II"), [180] another GATT panel heard a challenge brought by the European Economic Community (EEC) and the Netherlands against the secondary embargo provision of the MMPA. [181] According to the secondary embargo provision of the MPPA, intermediary nations exporting tuna or tuna products to the U.S. must certify and provide reasonable proof that the tuna had not originated from nations who were subject to the direct embargo.[182]

The EEC and the Netherlands argued that the secondary embargo was inconsistent with the GATT Article III, which authorizes internal regulations that treat domestic and foreign products alike; that the embargo also breached Article XI's forbiddance against quantitative restrictions except tariffs; and that it could not be justified by Article XX.[183]

Again, the panel reiterated that Article III was not applicable because the regulations were directed at harvesting and not the product as such.[184]

The Panel then examined whether the United States measures were consistent with Article XI:1. [185] The Panel noted that the embargoes imposed by the U.S. were "prohibitions or restrictions" in the terms of Article XI, because they banned the import of tuna or tuna products

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[178] The GATT Secretariat has warned that permitting nations to condition market access on another state's environmental practices is "a big step down a slippery slope." *See* Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1421.
[179] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1421.
[180] *See* United States -- Restrictions on Imports of Tuna, June 16, 1994, 33 I.L.M. 839.
[181] Benjamin Simmons, *supra* note 4, at 420.
[182] 33 I.L.M. 839, 849, para. 2.12.
[183] VED P. NANDA & GEORGE PRING, *supra* note 15, at 407.
[184] 33 I.L.M. 839, 890, para. 5.9. *and* Richard Skeen, *supra* note 8, at 187.
[185] 33 I.L.M. 839, 890, para. 5.10.

from any country not meeting certain policy conditions and they were not "duties, taxes or other charges." Therefore the embargoes were inconsistent with Article XI:1.[186]

The U.S. argued that both the primary and intermediary nation embargoes, even if inconsistent with Articles III or XI, could be justified by Article XX (g) as measures relating to the conservation of dolphins, an exhaustible natural resource, that there was no requirement in Article XX (g) for the resources to be within the territorial jurisdiction of the country taking the measure, and that the measures were taken in conjunction with restrictions on domestic production as well as met the requirement of the preamble to Article XX.[187]

In response, the Panel outlined a three-step analysis under Article XX (g).

First, it had to be determined whether the policy in respect of which these provisions were invoked fell within the range of policies to conserve exhaustible natural resources.[188] The Panel recognized that dolphins were an exhaustible natural resource because they could potentially be exhausted.[189]

This is a significant ruling about Article XX (g) in terms of the broad interpretation of the meaning of "exhaustible natural resources" in Article XX (g).[190] "This opened the door, if even just a crack, to future justification of unilateral environmental trade measures for the protection of the global environment." [191]

More importantly, the Panel set aside the extra-jurisdictional interpretation in respect to the scope of Article XX in Tuna/Dolphin I and stated that there is "no valid reason supporting the

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[186] 33 I.L.M. 839, 890, para. 5.9.
[187] The EEC and the Netherlands disagreed with all the four arguments brought forward by the U.S. *See id*., para. 5.11.
[188] *Id*., para. 5.12.
[189] The Panel pointed out that the basis of a policy to conserve them did not depend on whether at present their stocks were depleted. *Id*., para. 5.13.
[190] It seems that almost anything natural (coal, trees, water, dolphins, etc.) will be covered by the protection scope of Article XX (g). *See* Richard Skeen, *supra* note 8, at 187-88.
[191] Benjamin Simmons, *supra* note 4, at 421.

conclusion that the provisions of Article XX (g) apply only to policies related to the conservation of exhaustible natural resources located within the territory of the contracting party invoking the provision."[192] The Panel consequently held that the policy to conserve dolphins in the eastern tropical Pacific Ocean, which the United States pursued within its jurisdiction over its nationals and vessels, was covered by Article XX (g).

Second, it had to be determined whether the measure was primarily aimed at the conservation of dolphins, as that is the meaning the Panel rendered to the expression "related to," and the Panel had to inquire into whether it was necessary for domestic requirement to be effective.[193] In view of the fact that the U.S. prohibited tuna imports without regard to "whether or not the particular tuna was harvested in a way that harmed or could harm dolphins," the Panel held that both the primary and intermediary nation embargoes were taken so as to force other countries to change their policies with respect to persons and things within their own jurisdiction," so such embargoes could not be justified by Article XX (g).[194]

The third step was to determine whether the measure was applied in conformity with the requirement set out in the preamble to Article XX.[195] As an essential condition of Article XX (g) had not been met, the Panel considered that it was not necessary to examine whether the U.S. measures had also met the other requirements of Article XX. Accordingly it found that the embargoes maintained by the U.S. inconsistently with Article XI:1 were not justified by Article XX (g).[196]

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[192] VED P. NANDA & GEORGE PRING, *supra* note 15, at 407 *and* 33 I.L.M. 839, 893, para. 5.20.
[193] VED P. NANDA & GEORGE PRING, *supra* note *and* 33 I.L.M. 839, 891, para. 5.12.
[194] 33 I.L.M. 839, 894, para. 5.24.
[195] Namely, the Panel had to determine that the measure whether or not was applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or in a manner which would constitute a disguised restriction on international trade. *Id*. at 891, para. 5.12.
[196] 33 I.L.M. 839, 894, para. 5.27. As far as Article XX (b) is concerned, the Panel concluded that measures taken so as to force other countries to change their policies, and that were effective only if such changes occurred, could not

The above two TREM cases were decided under the old dispute settlement procedure under the GATT before the establishment of WTO. The old procedure commenced with bilateral consultations.[197] If such consultations and the supervening outside intervention and assistance all sustained failure, a party could request to establish a panel to hear the dispute.[198] After the panel received submissions from the disputing parties and possibly other interested nations, it then circulated proposed reports to the contending parties on a confidential basis for their review and comments.[199] Taking into account the comments, the panel submitted its report to the GATT Council.[200] However, a panel decision was not "adopted" by the Council unless all parties consented to the adoption.[201] This procedure was criticized as being ineffective and sometimes arbitrary.[202] In response to such criticism, in 1994, the Dispute Settlement Understanding ("DSU"), "a more standardized and legalized dispute resolution process,"[203] was adopted in the Uruguay Round.[204] The new system begins with the modification of the procedures by which disputes are heard and resolved, at the same time, ends with the appellate process which standardizes the interpretation of legal issues within the GATT.[205] Under the new system, "within sixty days of circulation of a panel report to the Members, the report shall be adopted at a DSB meeting unless a party to the dispute formally notifies the DSB of its decision to appeal or

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be considered "necessary" for the protection of animal life or health in the sense of Article XX (b). *See id*. at 898, para. 5.39.

[197] David M. Parks, *GATT and the Environment: Reconciling Liberal Trade Policies with Environmental Preservation*, 15 UCLA J. ENVTL. L. & POL'Y 151, 158 (1997).

[198] *Id*.

[199] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 613.

[200] *Id*. at 613-14.

[201] Benjamin Simmons, *supra* note 4, at 416. *See also* VED P. NANDA & GEORGE PRING, *supra* note 15, at 398 and Paul Demaret, *supra* note 13, at 65. As such, the party that lost the dispute could effectively block the adoption of a panel decision against it. The U.S. did so in the two Tuna/Dolphin cases. *See* David M. Parks, *supra* note 197, at 161 n.73.

[202] Benjamin Simmons, *supra* note.

[203] David M. Parks, *supra* note 197, at 160.

[204] Benjamin Simmons, *supra* note 201.

[205] David M. Parks, *supra* note 197, at 161.

the DSB decides by consensus not to adopt the report."[206] Evidently, this innovation adds a lot of reliability and stableness to the WTO decisions. Moreover, once a decision is appealed, the Appellate Body is proffered broad discretion and may modify or reverse the legal findings of the panel.[207] This makes the dispute settlement process look more like a judicial process and this process may bring forth a more coherent, principled and uniform case-law.[208] Thus, quite naturally, the GATT/WTO DSB has showed its immense potential to be an effective forum for the handling of trade-environment disputes.[209] This point is substantiated in the following cases, as we will see.

C. The Reformulated Gasoline Case

The Reformulated Gasoline Case was the first dispute referred to the Appellate Body under the DSU after the WTO was established.[210] Though that kind of conservative stance (as is exemplified in the two Tuna/Dolphin cases) of the GATT Panel that constantly gives priority to trade liberalization in addressing the TREMs continued into this case, the new GATT dispute settlement system, through its Appellate Body, did bring forth some fresh air into the debate on

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[206] *See* Uruguay Round art. XVI, para. 16.4, at http://www.wto.org/english/docs_e/legal_e/28-dsu_e.htm.

[207] Benjamin Simmons, *supra* note 201. Under the pro-Uruguay Round GATT, the WTO is said to be a more legalistic institution because of the adoption of the Dispute Settlement Understanding (DSU), the creation of the Dispute Settlement Body (DSB) (a specialized WTO institution to monitor the dispute settlement mechanism), and the WTO Appellate Body, whose function is to review issues of law contained in dispute panel reports. *See* David M. Parks, *supra* note 197, at 152 n.9.

[208] Miquel Montana i Mora, *supra* note 131, at 177.

[209] However, there are quite different opinions about this issue. Someone argues that "the GATT dispute resolution system is not well designed and markedly inappropriate for resolving trade-environment issues." *See* Jeffrey L. DUNOFF, *Resolving Conflicts*, *supra* note 55, at 614. Further, the GATT dispute resolution system is described as "a flawed dispute resolution system" for the following reasons. Firstly, there is no formal mechanism to ensure that the panel will have access to environmental expertise. Secondly, panel members are picked out for their expertise in "trade relations, economic development and other matters covered by the General Agreement" and there is no requirement that any panel members possess environmental expertise. Thirdly, the GATT panel typically does not apply recent treaties or customary international environmental law in connection with a particular dispute. Lastly, the GATT dispute resolution is, for the most part, a closed process which is antithetical to sound environmental decision-making. *See id*. at 621-22. "Many now argue that the GATT is not able to cope with newly emerging problems of trade policy, such as those posed by environmental considerations". *See* John H. Jackson, *supra* note 32, at 40.

[210] James Cameron & Karen Campbell, *supra* note 19, at 209.

TREMs by indicating that TREMs may be held compatible with GATT as long as they were nondiscriminatory and not disguised restrictions on trade. [211]

In this case, [212] Venezuela and Brazil requested the Panel to find that the final rule promulgated by the U. S. EPA on 15 December 1993 was contrary to Articles I (Most Favored Nation Treatment) and III (National Treatment) of GATT 1994, was not covered by any of the exceptions under Article XX, and violated Article 2 of the Agreement on Technical Barriers to Trade (TBT).[213] The U.S. countered that the EPA rule was consistent with Articles I and Article III and fell within the scope of Article XX (b), (d), and (g) of GATT 1994.[214]

The WTO dispute panel found that chemically-identical imported and domestic gasoline were like products under Article III:4 and therefore held that the baseline establishment methods contained in the EPA rule constituted a violation of GATT Article III.[215] Furthermore, the Panel found that the measure did not meet the requirements under Article XX (b), XX (d) and XX (g), and could not be justified under them.[216]

The U.S. appealed the decision to a WTO Appellate Body. The Appellate Body affirmed the Panel discussion but on different grounds and established a new framework analysis for Article XX exceptions.[217]

Firstly, the Appellate Body reversed the Panel's ruling that the measures were not primarily related to the conservation of exhaustible resources and arrived at a contrary conclusion, while it

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[211] Richard Skeen, *supra* note 8, at 189.
[212] For the fundamental facts of this case, *please see* Chapter III, Section C of this thesis.
[213] 35 I.L.M. 274, 279, para. 3.1.
[214] *Id*., at 279-80, para 3.4.
[215] *Id*., at 294, para. 6.09 & 6.10.
[216] *Id*., at 300, para. 8.1. As a result, the Panel found it unnecessary to determine whether the measure was primarily aimed at rendering effective restrictions on domestic production or consumption and whether the measure met the conditions in the introductory clause of Article XX. *See* 35 I.L.M. 274, 300, para. 6.41.
[217] Richard Skeen, *supra* note 8, at 188.

affirmed that to reduce the depletion of clean air which was a "natural resource" was a policy to conserve an exhaustible natural resource within the meaning of Article XX(g).[218]

Next, the Appellate Body found that the EPA Rule was legitimate environmental policy measure which fell within the terms of the GATT Article XX (g) exception.[219] Then the Appellate Body turned its attention to the introductory provisions of Article XX. Here, a two-tiered analysis was set forth for the first time: first, provisional justification by reason of characterization of the measure under XX(g); second, further appraisal of the same measure under the introductory clauses of Article XX.[220] Although the baseline establishment rules fell within Article XX (g) exception, the Appellate Body stressed that the failure of the U.S. to consult with affected nations so as to address the potential inequitable application of the baseline standards equaled to unjustifiable discrimination and a disguised restriction on international trade which were prohibited by the chapeau of Article XX.[221] So the U.S. measures did not meet the requirement within such introductory provisions and could not be justified by Article XX.

The Reformulated Gasoline case demonstrates the evolution of the DSB's application of GATT rules and the DSB's new expansive view of what constitutes a permissible exception.[222] By widening the scope for acceptance of TREMs under Article XX exceptions, the Appellate Body ruling holds open a door for environmental protection within the GATT regime,[223] as it

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[218] 35 I.L.M. 603, 618.
[219] James Cameron & Karen Campbell, *supra* note 19, at 211.
[220] 35 I.L.M. 603, 626.
[221] James Cameron & Karen Campbell, *supra* note 219 *and* 35 I.L.M. 603, 633.
[222] Richard Skeen, *supra* note 8, at 189.
[223] James Cameron & Karen Campbell, *supra* note 19, at 212. The authors point out that this decision simultaneously broadens and narrows the application of Article XX. Although the importance of the environmental exceptions has been supported and broadened, the decision has narrowed the application of Article XX through a more rigorous application of the chapeau. As a result, in future disputes, parties have to pay more attention to the requirements of the chapeau in evaluating the trade consistency of their TREMs. *See id.* at 211.

seems to allow more exceptions into GATT as long as such measures are nondiscriminatory and not disguised restrictions on trade.[224]

D. Turning Point: the 1998 Shrimp/Turtle Case

The Tuna/Dolphin II ruling and the Reformulated Gasoline ruling kindled a lot of sharp debates in the international community. At the bottom, the diction of the GATT Article XX is so ambiguous and broad as to invite many divergences.[225] In addition, there are not any procedural requirements about recovery, ratification or notice in this Article and the only way to know whether this Article could be availed of to justify a TREM is to resort to the GATT dispute settlement body. These facts make it very uncertain for any country to invoke Article XX as the justification of a TREM. Since TREMs, in substance, run afoul of the fundamental tenet of the WTO, the nation who attempts to adopt TREMs to protect environment inevitably runs the risk of being found in violation of the GATT by the GATT DSB. In fact, to date, almost all the nations adopting TREMs in those cases that were referred to the GATT/WTO DSB have failed in their efforts to justify TREMs.[226]

However, the WTO has gradually come to realize that its view on TREMs is unadvisable in the long run and there is inherent conflict between its trade-priority approach and the international trend to protect environment. Just as one commentator has accurately observed, the

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[224] Richard Skeen, *supra* note 8, at 189.

[225] There are some examples of ambiguity in Article XX. Firstly, the reference to "exhaustible" resources in XX (g) is ambiguous, for all resources are exhaustible, even renewable ones if they are not managed sustainably. Secondly, the meaning of "health" in XX (b) is not clear too. Thirdly, the location of the environmental damage relevant to an exception is unclear. Fourthly, XX (b) requires that the measures undertaken are "necessary" for protection of health but it is ambiguous whether "necessary" means there is no other choice or it means that the TREM is the most suitable measure. Lastly, the exact status of social objectives, such as health protection, vis-à-vis the objective of trade liberalization is open to question. *See* David Pearce, *supra* note 102, at 25-26. In practice, almost all the GATT/WTO Panel report involved and discussed some or all the above-mentioned ambiguities.

[226] According to the Earth Justice Legal Defense Fund, "The trade rules define virtually all obstacles to trade as unfair trade barriers, even if the measures are designed to protect the environment. … These exceptions [in Article XX] have so many conditions and prerequisites that it is extremely difficult for any domestic protection to pass muster." *See* Earth Justice Legal Defense Fund and Northwest Ecosystem Alliance, Our Forests at Risk: The World Trade Organization's Threat to Forest Protection 3 (1999), available at

1998 Shrimp/Turtle Appellate Body report represents the boldest attempt by a WTO dispute mechanism body to strike a balance between trade liberalization and environmental protection.[227] In that report, a surprising effort was made to reverse the preference in favor of trade liberalization in the trade-environment debate.

1. Backdrop of the 1998 Shrimp/Turtle Case

It is widely recognized that sea turtles are threatened with extinction.[228] As a matter of fact, all seven sea turtle species inhabiting the world's oceans are protected at the international level by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and by the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention).[229] Among the several factors that have led to the demise of sea turtles,[230] according to a National Academy of Sciences study, shrimp trawl nets are found to be the greatest threat to sea turtles in that they have killed "more sea turtles than all other human activities combined."[231] Throughout the world, it is estimated that around 124,000 sea turtles per year are entangled and drown in shrimp trawling nets.[232]

The U.S. government has long been concerned with the plight of the sea turtles, and considerable research has been done on the sea turtle population in the waters surrounding the U.S and such research finds out that the sea turtle is a biological indicator of the health of the

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http://www.earthjustice.org/regional/international/forestrpt.pdf (Last visit on March 1).
[227] Benjamin Simmons, *supra* note 4, at 414.
[228] *Id*. at 422.
[229] Lorenzo Schiano di Pepe, *supra* note 13, at 277-78.
[230] Such as the international trade in tortoise shell, beachfront development, exploratory oil and gas drilling, ocean dumping (including plastics), dredge and fill operations, power boats, commercial fishing, ghost nets, pollution, and the appetite the people of some nations have for sea turtle eggs. Kathleen Doyle Yaninek, *Turtle Excluder Device Regulations: Laws Sea Turtles Can Live With*, 21 N.C. CENT. L.J. 256, 263-64 (1995).
[231] Kathleen Doyle Yaninek, p256.
[232] Benjamin Simmons, *supra* note 4, at 423.

marine eco-system.[233] The U.S. Endangered Species Act of 1973 (hereinafter "ESA")[234] lists the six sea turtle species found in U.S. waters as "threatened" or "endangered."[235] In 1987, the U.S. issued regulations pursuant to the ESA to require all United States shrimp trawl vessels to use approved Turtle Excluder Devices ("TEDs")[236] or tow-time restrictions in U.S. waters where there was a significant mortality of sea turtles in shrimp harvesting.[237] TEDs are inexpensive and effective devices which are capable of reducing the incidental catch of sea turtles.[238] According to the National Marine Fisheries Service, the devices saved ninety-seven percent of the sea turtles caught in the nets.[239]

In 1991, Section 609 of the Endangered Species Act (hereinafter "Section 609"), which is twofold and consists of subsection 609(a) and (b),[240] was enacted by the U.S. so as to protect sea turtles internationally.[241] Section 609(a) required the Secretary of State to initiate negotiations for the development of bilateral and multilateral agreements for the protection of sea turtles.[242] Subsection 609(b)(1) introduced a general ban on the import of shrimp or shrimp products harvested with fishing technology that threatens sea turtles. Under Section 609(b)(2), only those nations who received certification from the U.S. Department of State were not affected by the

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[233] It is showed that a decline in sea turtle populations reflects a loss of biodiversity within an ecosystem. *See* James Cameron & Karen Campbell, *supra* note 19, at 213.
[234] Pub. L. 93-205, § 2, 87 Stat. 884 (1973) (codified as amended at 16 U.S.C. § 1531 (2005)).
[235] Benjamin Simmons, *supra* note 4, at 422.
[236] The American National Marine Fisheries Service initiated a study to set a program aimed at the reduction of sea turtle mortality and resulted the development of TEDs, which, when applied to the usual fishing tools, enabled turtles to escape after having been caught. Technically speaking, a TED is a cage installed inside a trawling net into which turtles and large fish cannot enter because the access to it is too narrow; they are instead forced through an escape hatch, the only practicable way out. Since shrimp are much smaller than turtles, TED will not cause serious reduction in the overall amount of shrimp caught, at the same time, the accidental taking of turtles can be greatly cut down. *See* Lorenzo Schiano di Pepe, *supra* note 13, at 278-79.
[237] *See* 38 I.L.M. 118, 123-24. When these regulations became fully effective in 1990, they were modified so as to require the use of approved TEDs at all times and in all areas where there is likelihood that shrimp trawling would harm sea turtles, with certain limited exceptions. *Id*. at 124.
[238] James Cameron & Karen Campbell, *supra* note 19, at 213.
[239] Benjamin Simmons, *supra* note 4, at 424.
[240] Lorenzo Schiano di Pepe, *supra* note 13, at 279.
[241] *See* Pub. L. No. 101-162, § 609 (codified at 16 U.S.C. 1537).
[242] Benjamin Simmons, *supra* note 239.

import control.[243] The U.S. Department of State would grant certification to a nation if it either: 1) provided "documentary evidence of the adoption of a regulatory program governing the incidental taking of sea turtles in the course of commercial shrimp trawl harvesting that is comparable to that of the United States;" or 2) had a "fishing environment which does not pose a threat of the incidental taking of sea turtles in the course of shrimp harvesting."[244]

Subsequently, the Department of State issued the 1991 guidelines for the certification process. [245] By virtue of the decision of the U.S. Court of International Trade ("CIT"),[246] the 1991 guidelines were revised in 1996.[247]

After the failure of reaching an agreement through consultation pursuant to the procedures of the WTO DSU, in January 1997, India, Malaysia, Pakistan and Thailand separately called for the establishment of a panel in order to examine their complaints regarding the enactment of Section 609 and the 1996 Guidelines.[248] Their main argument was that the U.S. regulations were in breach of its obligations under the General Agreement for the measures in question were an obvious violation of Article I:1 (Most Favored Nation Treatment), XI:1 (Elimination of

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[243] Lorenzo Schiano di Pepe, *supra* note 13, at 279.
[244] Benjamin Simmons, *supra* note 4, at 424-25.
[245] Turtles and Shrimp Trawl Fishing Operations Protection: Guidelines, 56 Fed. Reg. 1051 (1991). *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 411.
[246] The U.S. CIT in a ruling in December 1995 held that the Guidelines violated Section 609 because they limited the import ban only to countries of the wider Caribbean/Western Atlantic region. *See* Lorenzo Schiano di Pepe, *supra* note 13, at 280 n.31.
[247] 61 Fed. Reg. 17342 (Apr. 19, 1996). The new guidelines provided that imported shrimp must be accompanied by a Shrimp Exporter's Declaration Form which showed that the shrimp were harvested either from the waters of a country already certified under Section 609 or under conditions that did not adversely affect sea turtles. The new 1996 guidelines were challenged in the CIT and found to be in violation of Section 609. However, afterward the U.S. Court of Appeals vacated this decision after the environmental groups withdrew their motion. *See* Benjamin Simmons, *supra* note 4, at 426.
[248] World Trade Organization: Report of The Panel on United States – Import Prohibition of Certain Shrimp and Shrimp Products, 37 I.L.M. 832, para. 1. *See also* Lorenzo Schiano di Pepe, *supra* note 13, at 281 and Benjamin Simmons, *supra* note 4, at 426.

Quantitative Restrictions), and XIII:1 (Differential Treatment of Like Products) and were not covered by the exceptions under Article XX (b) and XX (g).[249]

The U.S. did not challenge the view that Section 609 was inconsistent with Article XI, [250] thus it only requested the Panel to find that Section 609 and its implementing measures fell within the scope of Article XX, paragraphs (b) and (g) of GATT 1994.[251]

The complainants heavily relied on the GATT panel decisions regarding Tuna/Dolphin I and Tuna/Dolphin II in which it had been set forth that Article XX exceptions had to be interpreted in a strict fashion and that they cannot be used by states to adopt measures with a view to force other contracting parties to change their national environmental policies, in any case.[252]

On May 15, 1998, the Panel issued its report which gives rise to much controversy. In this report, the Panel found that "the wording of Section 609 and the interpretation made of it by the CIT are sufficient evidence that the United States imposes a 'prohibition or restriction' within the meaning of Article XI" and thus drew the conclusion that Section 609 violated Article XI:1.[253] And the Panel further considered that, given its opinion about Article XI:1, it was not necessary to review the other claims of the complainants with respect to Articles I:1 and XIII:1.[254]

As far as Article XX is concerned, the Panel held that because the requirement of the chapeau conditions was not met by Section 609 and the exceptions in Article XX could be

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[249] 37 I.L.M. 832, para. 3.1.
[250] "The United argues that since under Article XX nothing in GATT 1994 is to be construed to prevent the adoption or enforcement of the measures at issue, it need not address Article XI. The United States also considers that the complainants have the burden of establishing any alleged violation of GATT 1994. However, the United States does not dispute that, with respect to countries not certified under Section 609, Section 609 amounts to a restriction on the importation of shrimp within the meaning of Article XI:1 of GATT 1994." 37 I.L.M. 832, para. 7.13.
[251] 37 I.L.M. 832, para. 3.3.
[252] Lorenzo Schiano di Pepe, *supra* note 13, at 281-82. *And see* 33 I.L.M. 839, 892.
[253] 37 I.L.M. 832, para. 7.17.
[254] 37 I.L.M. 832, para. 7.22.

passed muster only when those conditions were satisfied, the U.S. regulations could not be saved by Article XX.[255]

The U.S. challenged the Panel's decision before the Appellate Body of the WTO. While the Appellate Body upheld the Panel's judgment in favor of the claimants, the report[256] issued in October 1998 was based on a very different legal reasoning and analysis.[257] Just as is discussed *infra*, this report, which contains and analyzes quite a few issues, is of great significance for the comprehension of the change of attitude of the WTO towards TREMs.

2. The Interpretation of Article XX Exception under GATT: Two-step Approach

The Shrimp/Turtle Appellate Body report is a landmark in the development of GATT Article XX jurisprudence.[258] Though it does not thoroughly flesh out Article XX, the decision represents "the most comprehensive and thorough analysis" of Article XX by any WTO dispute settlement system.[259] The conclusion in respect of the compatibility of Section 609 with Article XX drawn by the Appellate Body is that while aiming at the protection and conservation of an exhaustible natural resource, Section 609 was applied in a discriminatory manner, which rendered it inconsistent with the Chapeau of Article XX.[260] This implies that, if Section 609 had been applied in a nondiscriminatory manner, it would have been held WTO-legal.

a. Two-step Approach

Prior to commencing its own Article XX analysis, the Appellate Body held that the Panel had made an error in determining that measures undermining the WTO multilateral trading system were not within the scope of measures permitted under the chapeau of Article XX.[261] The

[255] 37 I.L.M. 832, para. 7.28 & 8.1.
[256] 38 I.L.M. 118.
[257] Benjamin Simmons, *supra* note 4, at 427.
[258] *Id*. at 422.
[259] *Id*.
[260] Lorenzo Schiano di Pepe, *supra* note 13, at 284 *and* 38 I.L.M. 118, 175.
[261] 38 I.L.M. 118, 151.

Appellate Body reiterated the two-step approach of analysis as defined in Reformulated Gasoline case.[262] Firstly, it should be examined whether or not the measures fall under one of the enumerated categories outlined in the paragraphs of Article XX. Secondly, further appraisal should be made to see whether the same measures meet the requirement of the Chapeau.[263] The Appellate Body pointed out that "The sequence of steps indicated above in the analysis of a claim of justification under Article XX reflects, not inadvertence or random choice, but rather the fundamental structure and logic of Article XX."[264]

b. The First Step: Analysis in Reference to Article XX (g)

After the two-step approach was established, the next step for the Appellate Body to evolve the analysis was to determine whether the U.S. measures could be covered by any of the specific of paragraphs of Article XX.[265] Since Article XX (b) was relied on by the United States only in the alternative,[266] the Appellate Body's report focused in particular on the interpretation of GATT Article XX (g).[267] The Appellate Body found that Section 609 can be provisionally justified under paragraph (g).[268]

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[262] *See* Chapter III, Section C above.

[263] VED P. NANDA & GEORGE PRING, *supra* note 15, at 412; Richard Skeen, *supra* note 8, at 190; Lorenzo Schiano di Pepe, *supra* note 13, at 284 *and* Benjamin Simmons, *supra* note 4, at 432-33. "In order that the justifying protection of Article XX may be extended to it, the measure at issue must not only come under one or another of the particular exceptions -- paragraphs (a) to (j) -- listed under Article XX; it must also satisfy the requirements imposed by the opening clauses of Article XX. The analysis is, in other words, two-tiered: first, provisional justification by reason of characterization of the measure under XX (g); second, further appraisal of the same measure under the introductory clauses of Article XX." *See* 38 I.L.M. 118, 152.

[264] 38 I.L.M. 118, 152.

[265] Robert Howse, *supra* note 143, at 501.

[266] That is, if the measure was found not to be covered by the wording of Article XX (*g*), the U.S. would argue that the measure was covered by Article XX (*b*). There is reason for the U.S. to adopt such a strategy. In review of the previous GATT jurisprudence, it can be found that earlier rulings on Article XX (b), in fact, had established a much stricter interpretation of the exceptions mentioned therein, especially because of the term "necessary" contained in paragraph (b). So the U.S. considered that it would be easier to justify Section 609 under paragraph (g) as a measure relating to the conservation of an exhaustible natural resource, than under paragraph (b) as a measure necessary to protect human, animal or plant life or health. *See* Lorenzo Schiano di Pepe, *supra* note 13, at 288.

[267] *Id*. at 284.

[268] Due to the provisional justification under paragraph (*g*), the Appellate Body decided not to consider the consistency of Section 609 with paragraph (*b*) of Article XX. *Id*. at 289.

Then the Appellate Body undertook its own analysis of Article XX (g). At the outset, it drew the conclusion that the sea turtles constitute "exhaustible natural resources" for purposes of paragraph (g).[269] Textually, the Appellate Body held that Article XX (g) is not limited to the conservation of "mineral" or "non-living" natural resources.[270] The words of Article XX (g), crafted more than 50 years ago, had to be interpreted in the light of contemporary concerns of the community of nations about protection and conservation of the environment.[271] Therefore, natural resources should embrace both living and non-living resources, including sea turtles. Here, the fashion in which the problem of exhaustible natural resources was dealt with significantly deviated from that embodied in Tuna/Dolphin I and II.[272] The policy objectives and the nature of the measures at stake were paid more attention than the "marginal aspects" of conservation problems, such as the aim of a particular measure.[273]

Secondly, the Appellate Body examined the question whether the U.S. measure related to the conservation of exhaustible natural resources. From a chronological point of view, this expression -"relating to"- was interpreted in the sense that only those measures "primarily aimed at" protection and conservation of exhaustible natural resources could be justified under Article XX (g).[274] However, arguably the Appellate Body adopted a more open approach in the reasoning of this issue. After having referred to the "primarily aimed at" rule of interpretation,[275] the Shrimp/Turtle report went further to say that Section 609 was "reasonably related to" an environmental end and was neither "a simple, blanket prohibition of the importation of shrimp

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[269] 38 I.L.M. 118, 157. *See also* VED P. NANDA & GEORGE PRING, *supra* note 15, at 412.
[270] 38 I.L.M. 118, 154.
[271] *Id*. In terms of the objective of sustainable development articulated in the preamble of the WTO Agreement, the Appellate Body noted that the generic term "natural resources" in Article XX (g) was not "static" in its content or reference but was rather "by definition, evolutionary." *See* 38 I.L.M. 118, 155.
[272] Lorenzo Schiano di Pepe, *supra* note 13, at 285.
[273] *Id*. at 286.
[274] *Id*. at 288.
[275] 38 I.L.M. 118, 158.

imposed without regard to the consequences" nor "disproportionately wide in its scope."[276] It seems that the threshold implied in these words was lower than the one entailed by the traditional view.[277]As a result, it is arguable that future GATT panels and the Appellate Body may be prepared to follow such a laxer interpretation.[278]

Finally, the Appellate Body held that Section 609 was "made effective in conjunction with the restrictions on domestic harvesting of shrimp" and was an even-handed measure.[279]

As a consequence, the Appellate body concluded that Section 609 was "provisionally justified under Article XX (g)."[280]

c. The Second Step: Justification under the Chapeau

Section 609 must also satisfy the requirements of the introductory clauses of Article XX if it is ultimately to be justified as an exception under Article XX.[281] It means that the measure at stake must not be applied in a manner which would constitute arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.

The following points were relied on by the Appellate Body to establish that Section 609 had been applied in a manner that constituted an unjustifiable discrimination between countries where the same conditions prevailed:[282] 1) "essentially the same comprehensive regulatory program" was imposed by the U.S. in relation to countries that may have been in different conditions; [283] 2) "shrimp caught using methods identical to those employed in the U.S. were

[276] Lorenzo Schiano di Pepe, *supra* note 13, at 288. "The means are, in principle, reasonably related to the ends." *See* 38 I.L.M. 118, 159.
[277] Lorenzo Schiano di Pepe, *supra* note 276.
[278] *Id*.
[279] 38 I.L.M. 118, 160.
[280] *Id*.
[281] *Id*.
[282] Lorenzo Schiano di Pepe, *supra* note 13, at 290.
[283] 38 I.L.M. 118, 167. *See also* Lorenzo Schiano di Pepe, *supra* note.

excluded from" the American market unless the country of origin had been certified;[284] and 3) the U.S. had failed to explore cooperative measures for the protection and conservation of sea turtles prior to undertake the shrimp embargo.[285]

In addition, this rigidity and inflexibility embodied in the requirement of Section 609 also constituted "arbitrary discrimination" within the meaning of the chapeau.[286] The Appellate Body also found that the certification processes followed by the U.S. appeared to be singularly informal and casual, and conducted without any participation of the applying country.[287]

So, the manner of the application of the U.S. measure constituted arbitrary and unjustifiable discrimination between Members of the WTO contrary to the requirements of the chapeau of Article XX and the measure therefore could not be justified under the Article XX exceptions.[288]

3. Two Changes: the Attitude to PPMs and Acceptance of Amicus Curiae Briefs

a. Attitude to PPMs

Prior to the issue of the Appellate Body's report on Shrimp/Turtle, traditionally, the view has been taken that discriminations between goods that have been produced by different production, processing and manufacturing methods (PPMs) are inconsistent with the GATT in that "like" products cannot be treated differently and products cannot be considered "unlike" only because they are produced in different ways.[289] In Tuna/Dolphin I, the Panel claimed that products could

[284] 38 I.L.M. 118, 167.
[285] *Id*.; *see also* VED P. NANDA & GEORGE PRING, *supra* note 15, at 413. Some commentator argued that this point was not very fair to the U.S. because it ignored "the fact that Section 609 itself called for the Secretary of State to encourage and negotiate agreements with all foreign governments engaged in commercial fishing operations." *See* Lorenzo Schiano di Pepe, *supra* note 13, at 292.
[286] 38 I.L.M. 118, 172-73.
[287] *Id*., at 173.
[288] *Id*., at 174.
[289] Lorenzo Schiano di Pepe, *supra* note 13, at 296-97.

not be characterized by their PPMs for purposes of legal treatment under the GATT.[290] Several years later, in Tuna/Dolphin II, another panel came to the same conclusion holding that under the GATT a state should not be allowed to treat products differently on the basis of PPMs but only on the inherent characteristics of the products.[291]

In the Shrimp/Turtle case, it was argued that there was no difference between shrimp caught using TEDs and that caught by other methods.[292] Regarding this issue, the Appellate Body implicitly indicated that the WTO does not categorically disallow the use of TREMs that are based not on the characteristics of the product(s), but rather on PPMs from which the product(s) are derived.[293] "No distinction has been drawn by the Appellate Body between discrimination of like products and discrimination of unlike ones."[294] The Appellate Body's silence regarding the fact that the U.S. import ban was a PPM-based measure "signals a tolerance for PPM-based trade restrictions" that is significant to the international trade community.[295] It seems that the Appellate Body has tacitly opened the door to import restrictions based on PPMs.[296]

b. Acceptance of Amicus Curiae Briefs

That there was a lack of opportunity in the GATT context for citizen and non-government organizations ("NGOs") to participate in the dispute resolution process has drawn much

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[290] Henry L. Thaggert, *A Closer Look at The Tuna-Dolphin Case: "Like Products" and "Extrajurisdictionality" in The Trade and Environment Context*, *in* 1 TRADE & THE ENVIRONMENT: THE SEARCH FOR BALANCE 69, 73 (James Cameron, et al. ed., 3rd prtg. 1997).
[291] 33 I.L.M. 839, 889.
[292] James Cameron & Karen Campbell, *supra* note 19, at 214.
[293] *Introduction* to 38 I.L.M. 118.
[294] In any event, the view seems to have been taken that the same measure adopted by the U.S., if applied in a non-discriminatory manner, would have been considered by the Appellate Body to be GATT-legal. Lorenzo Schiano di Pepe, *supra* note 13, at 297.
[295] *See supra* note 293.
[296] Lorenzo Schiano di Pepe, *supra* note 13, at 297. Someone argued that Articles I and III do not explicitly ban discrimination between otherwise "like products" based upon the process by which a product is made. And some environmental advocates have seized upon the definitional flaw of "like products" in the GATT text and maintained that the PPM is an essential part of a product's characteristics. Therefore, "it seems logical in a sustainable development context to encourage accountability for all pollutive aspects of products including the associated PPMs." *See* Henry L. Thaggert, *supra* note 290, at 71-72.

criticism.[297] In response, Article 13.2 of the DSU provides that: "Panels may seek information from any relevant source and may consult experts to obtain their technical opinion on certain aspects of the matter."[298] Pursuant to such a provision, two groups of NGOs tried to submit amicus briefs directly to the Shrimp/Turtle Panel.[299] Nevertheless, through analyzing the language of Article 13 of the DSU, the Panel considered that "the initiative to seek information and to select the source of information rests with the Panel" and accepting non-requested information from non-governmental sources would be incompatible with the provisions of the DSU.[300]

The ruling of the Panel was overruled by the Appellate Body, who decided to accept one revised amicus brief submitted directly to it and three new NGO amicus briefs attached to the U.S. submission.[301] The Appellate Body reasoned that when Article 13 was read in conjunction with Articles 11 and 12, it allowed the panel discretion to accept and consider unrequested information submitted by non-members,[302] as long as it does not unduly delay the panel process.[303] Allowing such discretion is regarded by the Appellate Body as necessary to enable a dispute resolution body to "make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements."[304]

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[297] John H. Jackson, *supra* note 32, at 48.
[298] James Cameron & Karen Campbell, *supra* note 19, at 228.
[299] 38 I.L.M. 118, at 145. "These briefs were submitted in defense of the United States' ban on the importation of shrimp by fishermen who failed to use turtle excluder devices to protect endangered species of turtle." Richard Skeen, *supra* note 8, at 189.
[300] 37 I.L.M. 832, para. 7.8. But the Panel allowed the U.S. to attach the amicus briefs to its submission by stating that "We observed, moreover, that it was usual practice for parties to put forward whatever documents they considered relevant to support their case and that, if any party in the present dispute wanted to put forward these documents, or parts of them, as part of their own submissions to the Panel, they were free to do so." *See* 37 I.L.M. 832, para. 7.8.
[301] 38 I.L.M. 118, 142.
[302] Richard Skeen, *supra* note 8, at 190.
[303] 38 I.L.M. 118, 148.
[304] *Id*. *See also* Benjamin Simmons, *supra* note 4, at 430-31.

In Shrimp/Turtle case, for the first time an NGO had successfully submitted an amicus brief directly to a WTO dispute resolution body.[305] More importantly, acceptance of submissions by uninterested parties "displays the WTO's realization that its expertise is in the field of trade, not the environment" as well as "shows the WTO's commitment to ensure adequate information exchange."[306]

The implication of the acceptance of amicus curiae briefs is that environmental interests will gain a greater chance than before to influence the WTO DSB decision-making process. This implicates that there is a greater chance that the trend of environmental protection will further tilt the scale toward justifiable TREMs.

4. The Progeny of Shrimp/Turtle

Three years after the issue of the Appellate Body Report on Shrimp/Turtle dispute, i.e., in 2001, the Appellate Body again got a chance to clarify and elaborate on its original holding.[307] One of the Shrimp/Turtle complainants, Malaysia, challenged the revised measures the U.S. had adopted in response to the Appellate Body decision.[308] This second Appellate Body panel held that the corrective measures taken by the U.S., permitting shipment-by-shipment certification, were applied in a manner that met the requirement of Article XX of the GATT 1994,[309] and that the U.S. was not required to obtain the conclusion of an international environmental agreement.[310]

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[305] Benjamin Simmons, *supra* note, at 430.
[306] Richard Skeen, *supra* note 8, at 190. Furthermore, such an acceptance of unsolicited amicus briefs is a promising response to the criticism of the lack of transparency in the WTO dispute resolution process and of no scope for participation by NGOs. *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 413.
[307] Robert Howse, *supra* note 143, at 495.
[308] *Id*.
[309] Report of the Appellate Body, U.S. - Import Prohibitions of Certain Shrimp & Shrimp Products; Recourse to Article 21.5 of the DSU by Malaysia, at para. 154, WT/DS58/AB/RW (Oct. 22, 2001) [hereinafter Shrimp/Turtle 21.5 Report], available at http://www.wto.org.
[310] VED P. NANDA & GEORGE PRING, *supra* note 15, at 413. "The conclusion of an international agreement might nevertheless not be possible despite the serious, good faith efforts of the United States. Requiring that a multilateral

From the aforesaid examination of the GATT/WTO TREMs jurisprudence, one can readily discover that the GATT has been construed more and more favorable to justifiable TREMs. Then what should developing countries do in such a situation, taking no steps to improve the environment and then passively being put into imperil of becoming the targets of TREMs or internalizing environmental protection cost and then taking their fate into their own hand? The next chapter, by resorting to economic analysis, tries to argue that the latter is the right, and ultimate, choice.

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agreement be concluded by the United States in order to avoid 'arbitrary or unjustifiable discrimination' in applying its measure would mean that any country party to the negotiations with the United States, whether a WTO Member or not, would have, in effect, a veto over whether the United States could fulfill its WTO obligations. Such a requirement would not be reasonable." *See* Shrimp/Turtle 21.5 Report, *supra* note 309, para. 123.

CHPATER V

APPROACHES TO THE TRADE-ENVIRONMENT CONFLICT: FROM COMPARATIVE ADVANTAGE TO ENVIRONMENTAL PROTECTION COST INTERNALIZATION

Discussion and analysis above may give one a relatively clear conception of how the GATT Dispute Settlement System has been responding to TREMs and of the nature of TREMs. However, that the WTO DSB has reached a decision in every case above does not mean that the deeper-level problem, that is, the stark tension between trade liberalization and environmental protection, has been solved or lessened to any meaningful extent. The cases above at best manifest that TREMs, even those adopted by a nondiscriminatory means, will touch off more disputes and friction in the international community, especially when the developing countries whose exportation has been greatly affected by such measures are filled with resentfulness.

At bottom, it should be conceded that to some extent the environmental function of TREMs is limited. First of all, to those countries that are capable of giving the environmental objective priority but not willing to do so, the imposing of TREMs on them may offer them an incentive to protect the environment,[311] especially when trade is the direct cause of environmental degradation. However, as far as those countries that are unable to promptly come up to pertinent environmental standards due to lack of capital and technology, it will be neither fair nor appropriate to impose TREMs on them.

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[311] Tianhong Wang, *Lun Duobian Huanjing Tiaoyue yu WTO/GATT de Xietiao* [*On the Coordination of Multilateral Environmental Treaties and WTO/GATT*], *supra* note 7, at 420.

Secondly, usually the effect and influence of a TREM is hard to be long-term and continuous. Only when the country that is the target of a TREM accepts the point of view of the country enacting the TREMs and goes further to put such propositions into practice, will there be possibility of resolving the problem of environmental protection.

Besides, in terms of the unilateral aspect and extra-jurisdictional application of TREMs, the country imposing TREMs is vulnerable to criticisms that it is violating the national sovereignty principle by commandeering other countries to establish domestic environmental policy. And the situation will become even worse once the TREM is challenged before the WTO DSB because generally speaking, as mentioned above, the procedure will be time-consuming and costs a lot for both parties and it will imperil the harmony among nations more or less. So it is not very difficult for us to find out that TREMs are not the most effective method to resolve the intractable trade-environment conflict.

Some approaches to the trade-environment conflict and possible solutions have been proposed. One argument is that the GATT may be used to incorporate environmental issues into international trade. Although the GATT is not well suited for the consideration of current environmental and conservation concerns, "it is not inherently incapable of dealing with them."[312] Therefore, what should be done is to "green" the GATT. Just as discussed supra, however, there are some structural flaws embedded in the GATT system to strike balance between trade and environment, and the process of the WTO DSB is also time-consuming and costs high.

[312] Lorenzo Schiano di Pepe, *supra* note 13, at 301.

Others recommend that an effective, fair and efficient new forum with a dispute settlement system should be created to further both economic and ecological interests.[313] This seems also not a very good idea for its complexity and uncertainty.

Finally, some have argued that MEAs could help address the trade-environment conflict. In particular, MEAs would be the most appropriate to deal with those disputes with regard to the PPM issue, since they can lend internationally negotiated solutions to environmental concerns.[314] However, as someone has pointed out, the disadvantages of the classic treaty approach are quite evident.[315] First, the drafting, adoption, putting into effect and revision of MEAs are all intricate and time-consuming tasks. Second, transaction costs of this approach will be prohibitively high on account of the fact that this approach gives states the chance for "opportunistic" behavior, since legislative international intervention will have to respond to an evolving international environmental problem repeatedly.[316]

This thesis, however, will try to argue below that to resolve the trade-environment conflict, it will be an instructive and feasible attempt to make cost internalization a substitute for the traditional "comparative advantage theory" as the basis of the international trade regime.

A. The Traditional Basis of International Trade Regime and Its Defects

It is well-known that the doctrine of comparative advantage is the basis upon which the international trade regime rested. However, there are some flaws about this doctrine so as not to allow a proper consideration of contemporary environmental interests.

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[313] *Id*.; Jeffrey L. DUNOFF, *Resolving Conflicts*, *supra* note 55, at 622; *and* Richard Skeen, *supra* note 8, at 194.
[314] Tanyarat Mungkalarungsi, *supra* note 104, at 368.
[315] Gunther Handl, *supra* note 43, at 5.
[316] *Id*.

The doctrine of comparative advantage was first introduced to us by the English economist David Ricardo in 1817.[317] He explained that:

"Under a system of perfectly free [international] commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the whole. By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically: while, by increasing the general mass of productions, it diffuses general benefit ... "[318]

The doctrine of comparative advantage holds that by the aid of free trade, if one nation can export the commodity in which it has an advantage and import the commodity in which it has a disadvantage,[319] the efficiency and quantity of international production will be increased and in a result, greater aggregate welfare will be achieved.[320] "Under this theory, trade restrictions are inefficient and divert resources from their highly valued uses."[321]

However, environmental problems are ones involving externalities. In the field of microeconomics, externalities occur when production or consumption imposes uncompensated costs or benefits on other parties.[322] And there are two kinds of externalities, positive

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[317] PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, MICROECONOMICS 387 (16th ed. 1998).
[318] DAVID RICARDO, THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION 81 (J.M. Dent & Sons 1911) (1817).
[319] JOHN H. JACKSON & WILLIAM J. DAVEY, LEGAL PROBLEMS OF INTERNATIONAL ECONOMIC RELATIONS: CASES, MATERIALS AND TEXT 11 (2d ed. 1986). In the opinion of prominent economist Paul A. Samuelson, "the principle of comparative advantage holds that each country will benefit if it specializes in the production and export of those goods that it can produce at relatively low cost." "Conversely, each country will benefit if it imports those goods which it produces at relatively high cost." *See* PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *supra* note 317, at 387.
[320] Jeffrey L. Dunoff, *Reconciling*, *supra* note 2, at 1422.
[321] *Id*.
[322] PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *supra* note 317, at 326. "More precisely, an externality is an effect of one economic agent's behavior on another's well-being where that effect is not reflected in market transactions." *See id*. at 331.

externalities (external economies) and negative externalities (external diseconomies). [323] Environmental pollution usually is a typical exemplification of the negative externalities. "Economists saw the problem of environmental degradation as one in which economic agents imposed external costs upon society at large in the form of pollution."[324] Since externality is one of the three most important cases in which market failure[325] can happen and leads to inefficient production or consumption,[326] due to the externality of the environmental problems, markets provide incorrect signals involving the environmental issues. That means: because of the nonexclusive characteristic of the environmental consumption activities, such circumstances will occur in which everyone would like to enjoy the benign environment such as clean air and water while nobody is willing to pay for it and hope to benefit from the behaviors by others of managing and addressing the environmental problems.[327] Such phenomenon is called "free rider" behavior in the nomenclature of microeconomics.

Under this circumstance, devoid of constraints imposed by laws and regulations, enterprises would not voluntarily adopt measures to reduce the environmental pollution or try to address environmental issues related to their production in pursuing the maximum profits. In consequence, the price of the product of such enterprises only reflects the market cost and

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[323] *Id*. at 331. For example, some companies who spend heavily on technology research may have positive externalities for the rest of the society. And negative externalities occur when some firms polluted the air or water and impose the costs on the society in pursuing the maximum profits. *See id*. at 36.

[324] WILLIAM J. BAUMOL & WALLACE E. OATES, THE THEORY OF ENVIRONMENTAL POLICY 1 (2d ed. 1988).

[325] Market Failure means that in some circumstances market will not produce an efficient allocation of resources as it should be.

[326] The other two cases are lack of competition, such as monopolies, and public goods, such as national defense. *See* PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *supra* note 317, at 35.

[327] Many externalities partake of the character of public goods. And it is commonplace that where a public good (or bad) is involved, the ordinary price system cannot figure out an efficient outcome. "The basic source of the problem is the 'undepletable' nature of public goods: the fact that an increase in the consumption of the good by one individual does not reduce its availability to others." WILLIAM J. BAUMOL & WALLACE E. OATES, *supra* note 324, at 18-19.

transaction cost and precludes the environmental cost.[328] "With no 'prices' to provide the proper incentives for reduction of polluting activities, the inevitable result was excessive demands on the assimilative capacity of the environment."[329] As a result, it can be inferred that the economic growth promoted in the above-mentioned milieu is obtained in an unsustainable way and that market cannot allocate the environmental resources effectively due to the externality will extremely deteriorated the environment.

The other inherent flaw embedded in the comparative advantage doctrine is its ignorance of the scarcity of resources which is one of the most significant economic premises.[330] The comparative advantage doctrine is based on the traditional viewpoint which believes that resources are limitless. It is understandable that at that time when the industrialization was still not initiated and the resources consumed away and the level of the environmental degradation were all within the self-renovated spectrum which the global ecosystem can tolerate. It was then generally conceived that nothing, including natural resources, is of value without the anticipation of human labor.[331] However, the Industrial Revolution and particularly the violent development of production as well as the swift expansion of market in the wake of the World War II have reshaped the old notion and the scarcity of natural resources has been well acknowledged. In light of such change, humankind, for the existence of itself and the future generations, has to face the externality of the environmental issues and should endeavor to internalize the environmental protection costs and therefore resolve the trade-environment conflict.

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[328] Environmental cost means the expenses paid for the management and control of environmental pollution in the process of producing, transporting, consuming and recycling commodities.
[329] WILLIAM J. BAUMOL &WALLACE E. OATES, *supra* note 324.
[330] Mr. Paul A. Samuelson and William D. Nordhaus defined "economics" as "the study of how societies use scarce resources to produce valuable commodities and distribute them among different people." *See* PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *supra* note 317, at 4.
[331] Qiang Yan, Cong Shimao Zuzhi Falü Zhidu Kan Huanjing Wenti de Jiejue [Solve the Environmental Problem under the WTO Framework of Law] (2000) (unpublished LL.M. thesis, Peking University, Beijing, P.R. China) (on file with the Peking University Law School at Beijing library with the serial no. of 97170).

B. Internalization of Environmental Protection Costs: the Economic Approach

In this part, the economic approach is utilized to argue that internalization of environmental protection costs may be the most plausible way addressing the conflict between trade and environment. Here, the term "internalization of environmental protection costs" means bringing the environmental protection costs into the aggregate production costs of one commodity (or placing an appropriate "price" on polluting activities) so as to eliminate the externality in the process of employing resources and protecting the environment.

1. Differing Degrees of Environmental Protection Cost Internalization: the Root Drive Force behind the TREMs

At the present time, a wide variation exists in the levels of internalization of different nations in the international community. Generally speaking, developed countries have both an earlier beginning and earlier consummation of the Industrial Revolution than developing countries. Thus, they have undergone a sea of troubles caused by the "economic development first, environmental protection second" policy. In addition, due to the public awareness of the environmental issues and the prevailing of the green consumption which result from the improvement of the living standards and the enhancement of the educational level, most developed countries enacted relatively more stringent environmental standards and technical requirement and further put them into effect. Furthermore, with the benefit of their economic and technical advantages, developed countries are capable of adopting high environmental standards as well as have the adequate capital to make scientific researches on environmental problems.

As a result, the level of environmental cost internalization of developed countries is generally higher than that of developing countries; and the full production cost of one product made by an enterprise in developed countries may to a great extent be higher than that of the like product

made in countries with lax environmental standards, since the product made in developed countries contain higher environmental cost. Obviously, the enterprise will not assume the expenses and cost for the pollution control, instead it will include such cost into the market price of the product. So the products of countries with stringent environmental regulations may lose some market share in both domestic market and international market due to their disadvantaged position in the battle of prices.[332]

In these circumstances, it is quite natural that developed countries feel that they suffer unjust treatment.[333] In terms of the integral nature of the Earth ecosystem and the global aspect of the environmental issues, every nation should bear inescapable responsibility for the environment protection and the conservation of global commons. "After all, everyone has to share the planet, including current and future generations of both developed and developing nations."[334] The loose environmental policy carried out by some developing countries can be regarded as free-rider behavior on the international level. In addition, such policy will make developing countries ignore their obligation bound to the global environment and aggravate their domestic even the global environmental degradation. Even worse, the behavior of developing countries with lax environmental standards will induce developed countries to lower their environmental policy and then bring about the promulgation of "race to the bottom" legislation, "competition in laxity" and "eco-dumping."[335]

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[332] In particular, developing countries may obtain a comparative advantage in high pollution industries (steel, paper, petroleum, and raw material conversion) through weak environmental standards. *See* Richard Skeen, *supra* note 8, at 180.

[333] Someone has pointed out that "an importing country with high environmental standards might want to adjust the market conditions for the costs of domestic environmental protection against imported products out of the concern for international competitiveness for its producers." *See* Tanyarat Mungkalarungsi, *supra* note 104, at 366.

[334] Richard Skeen, *supra* note 8, at 198-99.

[335] Jargon such as 'eco-dumping', 'race to the bottom', and 'competition in laxity' has been used to describe a feared consequence of this phenomenon, that different jurisdictions competing to attract international businesses would create pollution havens by lowering their environmental standards below socially efficient levels." *See* Hakan Nordstrom & Scott Vaughan, *Special Studies*, *supra* note 85, at 35. Moreover, environmentalists have a fear that

In a sense, due to the globalization of trade, the lax environmental control pursued by developing countries, in fact, is to shift part of their domestic expenses on the prevention and cure of pollution to those countries with higher environmental cost internalization level. Maybe this is the very root reason why some developed countries appealed to TREMs for help.

2. Developing Countries at the Crossroads: Internalization as the Ultimate Choice [336]

Then, what course should the developing countries follow? Well, developing countries should do the best they could to internalize the environmental externalities on account of the following four reasons. This is not only the good strategy to cope with TREMs, but only would be in the long-term interest of developing countries themselves.[337]

a. The Shifted Attitude under WTO toward TREMs

The first reason is that, under the WTO dispute settlement system, as long as disputes related to TREMs are concerned, the weighing scale has subtly leaned toward environmental concerns. Although arguably the central focus of the WTO Agreement seems to remain "the promotion of economic development through trade"[338] and the environmental protection is not its basic aim, in the milieu of the graveness of environmental issues and its impact thereof, the legal regime and fundamental rules of the GATT cannot immunize themselves from the pervasiveness of the "green tide."

In Chapter IV of this thesis, we have reviewed the history of the GATT/WTO dispute settlement case law chronologically. As analyzed therein, the Appellate Body report on the

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developing countries will experience a chilling effect on environmental regulation because lax environ-mental standards offer a comparative advantage to companies looking to relocate production facilities.

[336] Someone argued that while the concept of externalities is often a justification for environmental regulation, itself does not offer a solution to environmental degradation. Determining the appropriate level of cost internalization is a question and because of inadequate information and scientific uncertainty, it is almost impossible to determine the full environmental cost of a given economic activity. *See* Tanyarat Mungkalarungsi, *supra* note 104, at 363-64. However, the purpose of this thesis is just to try to give a constructive direction for the trade-environment debate, and such operational issues go beyond the scope of this thesis as well as my ability.

[337] Gunther Handl, *supra* note 43, at 29.

Shrimp/Turtle case marked a decisive moment in the history of GATT/WTO dealing with TREMs.

In the first place, the Appellate Body report supports the view that there is "a move towards a fuller recognition of environmental concerns as a possible ground for departing from the general principles of the free trade regime."[339] The Appellate Body seems to begin to lay more emphasis on the goal of sustainable development set up in the new preamble of WTO.[340] Taking this into account, it can be reasonably inferred that had the authorities of the United States enacted a system of hearings or a fairer and more open certification procedure, Section 609 would have been held GATT-legal.[341] In fact, the WTO DSB has dropped such a hint that in addressing the similar disputes to the Shrimp/Turtle case in the future, one contracting country may use unilateral TREMs to protect the environment and the exhausting species given that a multilateral negotiation is initiated but fails to come to any outcome, as long as such TREMs comport with the requirements under the chapeau of GATT Article XX.[342]

In the next place, the Appellate Body in the Shrimp/Turtle case changed its attitude of disapproval toward the TREMs involving PPMs and it strongly indicated that it would not absolutely prohibit PPMs-based TREMs. Therefore, it has left the door open for the possibility

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[338] 37 I.L.M. 832, para. 7.42.
[339] Lorenzo Schiano di Pepe, *supra* note 13, at 294.
[340] Benjamin Simmons, *supra* note 4, at 435. Someone argued that after the Shrimp/Turtle case, "the WTO is (arguably for the very first time) on the verge of becoming (or proving to be) a proper forum for trade disputes which raise environmental questions." "Reliance on the principle of sustainable development could mean that the passage from the GATT to the WTO has rendered the dispute settlement system of the free trade regime more suitable for hearing disputes involving environmental problems." *See* Lorenzo Schiano di Pepe, *supra* note 13, at 296.
[341] Lorenzo Schiano di Pepe, *supra* note, at 294.
[342] This point means that seemingly the WTO DSB allows a contracting country to extend its domestic environmental administrative measures to other nations conditionally. *See* Jiong Zheng, *Shimao Zuzhi Jiejue Maoyi yu Huanjing Zhengyi de Xin Shijian - "Haigui-Haixia zhi Su" Pingxi* [*WTO's New Trend toward Environmental Disputes – Analysis of the Shrimp/Turtle Case*], SHIJIE MAOYI WENTI [JOURNAL ON WORLD TRADE ISSUES] (August 1999), at 59.

that non-discriminatory process-based measures are in accord with the GATT.[343] This approach is of great importance to the environmental protection. The traditional "like product" theory, upon which the nondiscriminatory principle of the GATT bases, maintains that the same treatment should be applied and the products should be considered "like products" no matter how differently the effects of two products will impose on the environment in its life cycle, so long as such products have the same final use and the like physical constitution. This theory may induce an enterprise to produce and transport products and dispose waste in the highest level of environmental externality so as to reduce the production costs. The competition in laxity may ensue as a consequence. To date, PPMs are an increasingly frequent form of environmental regulation.[344] "In an ecologically interdependent world, pollution created in the manufacturing process can be as harmful as pollution caused by the product itself."[345] Maybe just realizing that precluding the employ of PPMs-based TREMs will in fact deprive nations of a powerful tool to pursue sustainable development, [346] the WTO finally expressed its recognition in the Shrimp/Turtle case that the distinguishable effects of products on the environment in the life cycle may become a criterion to differentiate the "like product." So it is not surprising that, opining that TREMs shall not be distinguished on the basis whether they are based on PPMs or something else, one prominent scholar has predicted that "the product-process distinction will probably not survive and perhaps should not survive."[347] Also, it is worth mentioning that the acceptance of amicus curiae briefs means that environmental interests have a greater chance than

[343] Robert Howse, *supra* note 143, at 515.
[344] Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 616.
[345] *Id*.
[346] *Id*.
[347] John H. Jackson, *The Limits of International Trade: Workers' Protection, the Environment and Other Human Rights*, 94 AM. SOC'Y INT'L L. PROC. 222, 224 (2000). However, Jackson also notes that as there is no ruling where the Appellate Body has explicitly treated a process-based measure as consistent with National Treatment, the issue "remains open." *See* Robert Howse, *supra* note 143, at 516.

before to influence the WTO DSB decision-making process. This implicates that there is greater chance that the trend of environmental protection will further tilt scale toward justifiable TREMs.

All in all, in terms of the newest environmental trend manifested in the process of addressing TREMs disputes by the WTO DSB, it can be envisaged that there is a much greater possibility for the developing countries that are affected by the TREMs to lose the case before the WTO DSB. So, at least in the legal regime of WTO, it will be a wise decision for developing nations to internalize environmental costs. If developing countries still persist in their old standpoint, just as discussed infra, they will not only fall into a terrible vicious circle but also continue to be disconcerted by the attack of TREMs.

b. The Approach of Economic Analysis

Besides the reason discussed supra, as a matter of fact, the result occasioned by the approach of environmental cost internalization is not as dreadful as some developing countries have feared. This point is clearly illustrated by the following hypothetical example. Let's use the U.S. and Mexico in this hypothesis. The former is a developed country on a high level of environmental protection and the latter is a developing country whose environmental regulation is much laxer in comparison. Assume that Mexico, after its exportation to the U.S. is affected by a TREM enacted by the U.S., is considering internalizing the environmental cost but fears that such internalization (for example, improving the domestic environmental standards, enacting more stringent environmental law and regulations or preparing itself to participate in more eco-labeling schemes) will increase the production cost of the home-made products dramatically and then have a negative influence upon their competitive edge in the international as well as domestic markets. Mexico will be concerned about the possible pecuniary losses and hindrance to the domestic economic development as a consequence of internalization.

In the first scenario, we suppose that one company of the U.S. need to pay 50,000 dollars to eliminate the environmental externality, such as purchasing environmental technology or facilities, and we further suppose the real purchasing power of Dollar in the U.S. is the same as that of Peso in Mexico and Mexico has the same environmental technology or can produce the same facilities, to reach the like level of the environmental cost internalization with the U.S. Thus, a competitive company in Mexico only needs to pay 50,000 Pesos. However, according to the international currency exchange rate, one dollar equals 4 or even more Pesos. Therefore, since their products will compete with each other in the international market, the environmental cost spent by Mexico is much lower than that spent by the U.S. when the international currency exchange rate is taken into consideration. As a result, even though Mexico makes a decision to internalize the environmental cost, its products will still retain the price advantage in the international market, though the advantage is not as great as that before the internalization.

The second possible scenario: suppose the real purchasing power of Peso in the Mexico is different from that of Dollar in the U.S. and such difference is exactly reflected in the exchange rate, that is, the real purchasing power of one dollar equals four or even more Pesos. Under such a circumstance, if Mexico is able to develop the same environmental technology or produce the same facilities, it will cost the company in Mexico 50,000 dollars; if Mexico is not able to obtain such technology or facilities of itself, the company then need to purchase such technology or facilities in the international market (or from the U.S.), the expenses paid by the company is still 50,000 dollars. Under this circumstance, undoubtedly, Mexico cannot keep up to a comparative advantage in Scenario I. However, because of the differences of other factors such as labor cost and land-use fee, the price of the Mexican product is still not necessarily higher than that of the American like product. Thus, Mexico may still retain some price advantage.

Of course, the third scenario could not be dispelled: by virtue of the financial and technical disadvantages of Mexico, it will cost Mexico dear to come to the same environmental standards with the U.S. and therefore the like product of Mexico loses its price advantage and market competitiveness in the end. [348] In this situation, it is the time for developing countries to unite together and negotiate with developed countries so as to secure from them necessary technical and financial assistance in accordance with the principle of common but differentiated responsibilities.[349] And history repeatedly bears out that it is not impossible for developing countries to obtain from developed ones reasonable concessions, if they act in cooperation and association.[350] The argument that the developed world should give incentives to encourage the Third World to participate in global environmental regimes can be justified as a matter of fundamental international equity.[351] Firstly, developed countries should answer for most of the current environmental problems which are caused by their industrialization. Even nowadays developed world does not do better than the developing countries with regard to the emission of noxious gases and the consumption of natural resources.[352] Secondly, "while developed nations would be asked to pay up belatedly for globally experienced or threatened environmental costs associated with their economic and social development", developing countries "are asked to share the burden of controls without having derived comparable compensating socioeconomic

[348] It is a pity that, just as I have to concede, in above-mentioned three scenarios, the third one may be the predominant one.
[349] Lorenzo Schiano di Pepe, *supra* note 13, at 300.
[350] For example, developing countries can avail themselves of the help of the Global Environment Facility (GEF), an independent financial organization that provides grants to developing countries for projects that benefit the global environment and promote sustainable livelihoods in local communities. The GEF was established in 1991 and has provided $4.5 billion in grants and generated $14.5 billion in co-financing from other partners for projects in developing countries and countries with economies in transition. For more information, *please see* http://www.gefweb.org/What_is_the_GEF/what_is_the_gef.html (last visited April. 26, 2005).
[351] Gunther Handl, *supra* note 43, at 29.
[352] As regards the ozone depletion problem, in 1989, North America, Europe and Japan alone accounted for more than eighty percent of the total consumption of substances subject to control under the Montreal Protocol. *See id*. at 29 n.173.

benefits."[353] Thirdly, environmental cost internalization may preempt developing countries from exercising what might have been their "natural" development options.[354] Finally, developed countries should undertake corresponding responsibility for their behaviors that they transferred pollution industries and imported a lot of primary products from developing countries and caused the latter's environment degraded.

As a result, in the international community, developed countries should adhere to the principle of "common but differentiated responsibilities" and render compensatory and/or technical incentives to developing countries in exchange for their support rather than adopt TREMs which will probably result in misunderstanding and conflicts.[355] In the long run, it will not only make a contribution toward the common interests of humankind but also benefit developed countries themselves because many environmental issues such as climate change and the exploitation of natural resources cannot be satisfactorily tackled on a national basis.[356] Lack of the cooperation of the Third World, the environmental objectives will be hard to be secured. After all, no state is an isolated island.[357]

c. The Issue of Competitive Advantage

In short term, the internalization of environmental costs will increase the production cost and thus the product prices will go up in terms of the absolute value. Nevertheless, it should not be ignored that the environment-friendly products are becoming more and more welcomed in the

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[353] *Id*. at 29.
[354] *Id*. If an underdeveloped country sustains opportunity cost by giving up a natural development option to protect environmental resources that are of global interest or special interest to other nations, it should have the right to obtain compensation. *See id*.
[355] Someone argued that incentives are of great importance to developing countries, which are frequently unwilling or unable to absorb the high short-term costs imposed by pollution control regulations or technologies without international assistance. *See* Jeffrey L. Dunoff, *Resolving Conflicts*, *supra* note 55, at 624.
[356] Lorenzo Schiano di Pepe, *supra* note 13, at 273.
[357] The environment does not stop at political borders and the pollution and resource utilization done in one country now is "routinely seen to have impacts in other countries, in areas outside any country's jurisdiction, and even

market because the green concept has been deeply rooted in the hearts of people and the green consumption has become more and more popular. An investigation made in 1990 showed that sixty-seven percent of the Dutch, eighty percent of the German and seventy-seven percent of the Americans will take environmental concerns into account when they purchase certain merchandise.[358] In 1992, the Canadian Consumers' Association conducted an investigation too and found out that 94% of the Canadian consumers would consider environment issues.[359]

It is clear that where public awareness of environmental issues is high among the consumers and the green preference of the consumers has strengthened, the consumers are willing to pay that part of price which results from the environmental cost internalization. Therefore, the producers will gain a competitive advantage through their "green" image and may obtain a broader market prospect instead of lose market share.[360] And it can be inferred that the environment-unfriendly products will be put at a disadvantage in the end. This is also a very important reason that compels developing countries to internalize their environmental protection cost.

d. To Avoid a Vicious Circle

If developing countries keep to their old notion and do not endeavor to address the environmental externality, a vicious circle will probably come forth.[361]

On the one hand, poverty easily drives developing countries to pursue economic development to the extent that they forget to care for the environment or overlook the

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globally." *See* VED P. NANDA & GEORGE PRING, *supra* note 15, at 7. And North/South cooperation is imperative to effective environmental policy making. *See* Richard Skeen, *supra* note 8, at 171.

[358] RUQIU YE, HUANJING YU MAOYI [ENVIRONMENT AND TRADE] 92 (Huanjing Kexue Chubanshe [Environmental Science Press], Beijing, 2001).

[359] *Id.*

[360] Atsuko Okubo, *supra* note 4, at 602.

[361] If some developing countries do not care such a result, I think that to some extent the TREMs maybe the next better method to wake them to the necessity of environmental protection.

environmental interests completely.[362] They are not willing to internalize the environmental cost, but rather buck for temporal development at any cost. As a result, the natural resources are depleted unlimitedly and the environmental problems become more and more severe.

On the other hand, the rising of green tide and the adoption of TREMs have a great impact on the exportation of developing countries. Even if the WTO DSB makes a decision in favor of developing countries, the substantive pecuniary losses have become irretrievable in great part. In addition, the preference of consumers to the environment-friendly products and the squeezing-out effect of environment-friendly products to environment-unfriendly products therewith will exert a significantly negative effect on the exportation of the products of developing countries with low environmental added-value. In the end, the competitive advantages at the disastrous cost of the domestic ecological environment and human, animal or plant life or health will vanish gradually. And the most dreadful thing is that in the wake of becoming more impoverished, developing countries which are not capable of adopting new environmental standards and develop new environmental technologies due to a lack of money will fall into a vicious circle.

So, the task of top priority is to squarely face the environmental problems instead of shirking, resisting and rejecting participation in the negotiation of "Green Round." Although to some extent it is necessary for the Third World to bargain with developed countries to advance their interests, what should be borne in mind is that protecting the environment and promoting the sustainable development of economy has become the inevitable trend of social development. Developing countries should not and have no reason to escape from their responsibility on the global environmental protection. When all is said and done, we only have one earth.

[362] "Please pollute me to death!" proclaimed by a representative to the UN Conference on the Human Environment in Stockholm, Sweden. It represents a typical notion and sentiment widespread in the Third World: any cost is worthwhile in order to realize industrialization.

CHAPTER VI

CONCLUSION

Up to this stage, this thesis has argued that, instead of being only thinly-disguised non-tariff barriers, TREMs are a product of the deep conflict between trade and environment. The conflict may partly be attributed to the defects of the comparative advantage theory, on which the world free trade framework as represented by GATT/WTO is based. The comparative advantage theory does not take into due consideration the externality of environmental problems and the scarcity of natural resources. This kind of failure may be fatal, if not addressed adequately and in time. And the only way to address it is to internalize environmental costs.

In so arguing, special emphasis has been placed upon developing countries. It is painstakingly pointed out that environmental cost internalization is not necessarily bad for developing countries and that in the long run it is good for developing countries' self-interest. But also as indicated above, to do so, developing countries at least will lose some edge in competitiveness of their products. This price may be high, in their eyes. But isn't the price of depleting the earth's precious resources, its fragile ecosystem, the ozone layer, the oceans and the forests even higher? Considering that the price developing countries need to pay may help save the planet, the price seems a great bargain compared with the high price that the earth and its inhabitants will end up paying if global environmental security as a whole continues to be ignored or inadequately addressed. [363] Please remember: the natural environment when viewed as a resource is a finite one, and the global environment is irreplaceable.[364]

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[363] Paula M. Pevato, *supra* note 47, at lii.
[364] *Id*. at xiii.

That special emphasis is placed on developing countries does not mean that developed countries do not have obligations. Their first obligation is not to promulgate TREMs as a disguise of trade protectionism. Their second obligation is to respond positively to reasonable requests of cooperation and concession from developing countries. Anyway, it is the developed world that should bear greater responsibility for the degradation of the earth's environment.[365] Developed countries need to take up the responsibility to help developing countries to realize internalization by the ways of, for example, technological transfer and capital investment and so on. It shall also be remembered that that TREMs have their reasonableness does not mean that it is appropriate for developed countries to enact more and more TREMs unilaterally, especially in light of the fact that TREMs have only limited benefits.[366] Too many TREMs may only have one consequence: too much friction between developed and developing countries. This is not good at all for the solving of the trade-environment conflict. Environmental problems are not isolated in one or another country. They are global, universal, and intricately interwoven. To solve problems of such great dimensions, the only way is: everyone must cooperate on a global level and comply with the principles of intergenerational equity in order to preserve the natural environment and all its resources for future generations. [367]

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[365] Lorenzo Schiano di Pepe, *supra* note 13, at 300. The Appellate Body's ruling on the Shrimp/Turtle case held that different levels of efforts may be required in order to transfer the relevant technology to different countries. *See* 38 I.L.M.118, 172, para. 175.
[366] *See* Chapter III, Section C above.
[367] Richard Skeen, *supra* note 8, at 199.

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